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LAVA 20

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DURABLE, VERSATILE & FLEXIBLE LIQUID RUBBER WATERPROOFING SYSTEM FOR...



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Asphalt



Concrete



Timber / OSB









Asbestos



Insulation Boards & Cement Boards





Metal



Spray Foam





Lava 20 (standard solvent system) quick step by step guide

Step. 1. ensure the surface is clean and dry

Step. 2. Full any joints holes or voids with Owl PU mastic

Step. 3. Prime the entire area with Lava 20 quick primer / fast primer

Step. 4. Apply the Lava 20 liquid rubber system with reinforcement tape / matting as required and then apply another more Lava 20 if using matting / tape.

Step. 5. (Optional / recommended) apply any colour top coat coat for a hard / scratch resistant finish with an even longer life or use Lava 20 Clear Top Coat and quartz for an anti slip finish. (***) Owl Waterproofing Solutions

Application Specification:

(Plywood/Concrete) June 2022

LAVA 20 POLYURETHANE ELASTOMERIC COATING SYSTEM FOR ROLLER APPLICATION ON PLYWOOD AND CONCRETE DECKS

PART 1 - GENERAL

1.1 SUMMARY

This section describes the requirements for installing a liquid applied waterproofing, wear surface for deck surfaces over occupied space. Its intended use is suitable for residential and commercial foot traffic, patio furniture and similar equipment.

1.2 RELATED SECTIONS

- A. Cast-In-Place Concrete: Division 03 30 00
- B. Flashing and Sheet Metal: Division 07 60 00
- C. Drains, Vents, and Penetrations: Division 22 14 26.13

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's standard submittal package including specification, installation instructions, and general information for each waterproofing material.
- B. Americans with Disabilities Act (ADA) Recommendations: Prior to installation, submit manufacturer's data indicating that the specified waterproofing application conforms to the provisions of the ADA Accessibility Guidelines as published by the US Access Board, 1331 F Street, NW, Suite 1000, Washington, DC 20004-1111.

C. The static coefficient shall exceed the minimum recommendations of the American Disability Act (ADA), for accessible routes, for wet and dry surfaces, and for leather and rubber heel materials.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store all coating materials in the original unopened containers at 50 to 80 °F (10 to 27 °C) till coating is ready for use.
- B. Follow the special handling or storage requirements of the manufacturer for cold weather, hot weather, etc.
- C. Safety: Refer to all applicable data, including, but not limited to MSDS, PDS, product labels, specific instructions for specific personal protection requirements.
- D. Environmental requirements: Proceed with work of this section only when existing and forecasted weather conditions will permit the application to be performed in accordance with the manufacturer's recommendations.

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1.6 JOB CONDITIONS

- A. Safety: Refer to all applicable data, including, but not limited to SDS, PDS, product labels and specific instructions for specific personal protection requirements.
- B. Weather: Proceed with the work of this section only when existing and forecasted weather conditions will permit the application to be performed in accordance with the manufacturer's recommendations.

1.7 WARRANTY

A 25-year warranty is available for commercial & domestic projects.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

Acceptable Manufacturers: OWL WATERPROOFING SOLUTIONS - www.owlwaterproofing.co.uk

2.2 MATERIALS

- A. Primer: Lava Prime
- B. Polyurethane Base Coating: Lava 20
- C. Polyurethane Top Coating: Lava Top Coat
- D. Flashing and Joint Reinforcing Fabric: Polyester Tape or chop strand matting as required for flashing drains, base angles, etc.
- E. Misc. Accessories: All items incorporated into this system shall be compatible with and approved by the coating manufacturer.

NOTE: Allow additional material for rough or irregular surfaces. Consult OWL Technical Service for further inquiries.

3.1 EXAMINATION

- A. Verify substrate is ready to receive work; surface is clean, dry and free of substances that could affect the bond.
- B. Verify that the plywood / OSB shall conform to U.S. DOC PS 1 or CSA 0325 and shall carry the grade trademark of the Engineered Wood Association - APA AB EXT or APA AC EXT are acceptable. Underlayment grade plywood (APA AC EXT Underlayment) with solid, plugged cross bands under the face veneer is recommended for commercial installations.
- C. Unacceptable Grades: APA C-D EXT, APA C-C EXT, Exposure 1 markings, oriented strand board (OSB), waferboard and Lauan or Mahogany plywood are NOT suitable substrates for liquid-applied coating systems. This is due to poor dimensional stability, weak glue lines which allow buckling or lifting of the top ply, and excessive splintered, leafed and raised surface grain.
- D. Do not begin the work until the concrete substrate has cured 28 days and/or has achieved a moisture content of no greater than 12%.
- E. Ensure the substrate condition is clean and dry and ready to receive the waterproofing application.

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3.2 PREPARATION

- A. Clean substrate to remove all surface contaminants.
- B. Mask off all adjoining areas that are not to receive the fluid applied waterproofing.
- C. Provide a suitable workstation to mix the coating materials.

3.3 INSTALLATION

A. Concrete

New concrete shall have cured a minimum of 28 days. New or existing concrete shall be free of oil, grease, curing compounds, loose particles, moss, algae growth, laitance, friable matter, dirt, bituminous products, and previous waterproofing materials. New or existing concrete shall be dry.

Application Process

Step 1. Fill and smooth any crack or voids with the Owl PU Mastic

Step 2. Prime the whole area with Lava Prime at a rate of one gallon per 203 sq ft & allow the dry for 2 -3 hours **Step 3**. Simply coat the whole area with Lava 20 at a rate of 0.061 gallon PER sq ft

Step 4. (Optional) Apply the Lava Topcoat over the entire area coverage 1 gallon per 215 sq ft. If using any colour Top Coat and Quartz or Aggregate for an Anti Slip Finish the consumption rate is typically halved due to the textured granular surface; approximately 1 gallon per 100 sq ft² depending on the size of the aggregate / guartz.

B. Wood / Plywood

New or existing wood / plywood shall be dry with a maximum moisture content of (5%) five percent. Coating over wet components will adversely affect the adhesion of the Lava 20 coatings.

Application Process

Step 1. Fill and smooth any crack or voids with the Owl PU Mastic

Step 2. Prime the whole area with Lava Prime at a rate of one gallon per 203 sq ft & allow the dry for 2 -3 hours **Step 3**. Reinforce all joints using the polyester fabric tape. Apply Lava 20 over the joint then cut your tape to size place the tape over the joint, then apply more Lava 20 to embed the tape.

Step 4. Simply coat the whole area with Lava 20 at a rate of 0.061 gallon per sq ft

Step 5. (Optional) Apply the Lava Topcoat over the entire area coverage 1 gallon per 215 sq ft. If using any colour Top Coat and Quartz or Aggregate for an Anti Slip Finish the consumption rate is typically halved due to the textured granular surface; approximately 1 gallon per 100 sq ft² depending on the size of the aggregate / quartz.



Application Specification:

(Asphalt / Torched Down Felt / BUR) (Metal/Steel) June 2022

LAVA 20 POLYURETHANE ELASTOMERIC COATING SYSTEM FOR ROLLER APPLICATION ON Asphalt / Torched Down Felt / BUR Metal / Steel

PART 1 - GENERAL

1.1 SUMMARY

This section describes the requirements for installing a liquid applied waterproofing, wear surface for deck surfaces over occupied space. Its intended use is suitable for residential and commercial foot traffic, patio furniture and similar equipment.

1.2 RELATED SECTIONS

- A. Cast-In-Place Concrete: Division 03 30 00
- B. Flashing and Sheet Metal: Division 07 60 00
- C. Drains, Vents, and Penetrations: Division 22 14 26.13

1.3 SUBMITTALS

A. Product Data: Submit manufacturer's standard submittal package including specification, installation instructions, and general information for each waterproofing material.

B. Americans with Disabilities Act (ADA) Recommendations: Prior to installation, submit manufacturer's data indicating that the specified waterproofing application conforms to the provisions of the ADA Accessibility Guidelines as published by the US Access Board, 1331 F Street, NW, Suite 1000, Washington, DC 20004-1111.

C. The static coefficient shall exceed the minimum recommendations of the American Disability Act (ADA), for accessible routes, for wet and dry surfaces, and for leather and rubber heel materials.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store all coating materials in the original unopened containers at 50 to 80 °F (10 to 27 °C) till coating is ready for use.
- B. Follow the special handling or storage requirements of the manufacturer for cold weather, hot weather, etc.
- C. Safety: Refer to all applicable data, including, but not limited to MSDS, PDS, product labels, specific instructions for specific personal protection requirements.

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D. Environmental requirements: Proceed with work of this section only when existing and forecasted weather conditions will permit the application to be performed in accordance with the manufacturer's recommendations.

1.6 JOB CONDITIONS

- A. Safety: Refer to all applicable data, including, but not limited to SDS, PDS, product labels and specific instructions for specific personal protection requirements.
- B. Weather: Proceed with the work of this section only when existing and forecasted weather conditions will permit the application to be performed in accordance with the manufacturer's recommendations.

1.7 WARRANTY

A 25-year warranty is available for commercial & domestic projects.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

Acceptable Manufacturers: OWL WATERPROOFING SOLUTIONS - www.owlwaterproofing.co.uk

2.2 MATERIALS

- A. Primer: Lava Super Quick Prime
- B. Polyurethane Base Coating: Lava 20
- C. Polyurethane Top Coating: Lava Top Coat (any colour or clear)
- D. Flashing and Joint Reinforcing Fabric: Polyester Tape or chop strand matting as required for flashing drains, base angles, etc.
- E. Misc. Accessories: All items incorporated into this system shall be compatible with and approved by the coating manufacturer.

NOTE: Allow additional material for rough or irregular surfaces. Consult OWL Technical Service for further inquiries.

3.1 EXAMINATION

- A. Asphalt needs to be clean from any loose particles, moss, algae growth, etc. Surface needs to be fully dry before the application. Do not apply Owl Waterproofing products over asphalt or asphalt products that have not aged for a minimum of 180 days. Coating over uncured (not aged) asphalt products will cause staining and/or blistering of the Lava 20. Full reinforcement will be required using the Glass fiber (Chop Stand Matting) or Polyester Fabric
- **B.** Surface needs to be clean and dry any rust needs to be treated.

3.2 PREPARATION

- A. Clean substrate to remove all surface contaminants.
- B. Mask off all adjoining areas that are not to receive the fluid applied waterproofing.
- **C.** Provide a suitable workstation to mix the coating materials.

3.3 INSTALLATION

A. Existing Bitumen Based Materials (Asphalt / Torched Down Felt / BUR)

Asphalt needs to be clean from any loose particles, moss, algae growth, etc.

Surface needs to be fully dry before the application. Do not apply Owl Waterproofing products over asphalt or asphalt products that have not aged for a minimum of 180 days. Coating over uncured (not aged) asphalt products will cause staining and/or blistering of the Lava 20. Full reinforcement will be required using the Glass fiber (Chop Stand Matting)

Application.

Step 1. Fill and smooth any crack or voids with the Owl PU Mastic

Step 2. Prime the whole area with Lava Prime at a rate of one gallon per 203 sq ft² & allow the dry for 2 -3 hours Step 3. Apply Lava 20 over a section of the area then reinforce the area by embedding the Chop Strand Matting or Polyester Fabric into the wet coating, then apply more Lava 20 to complete the waterproofing system. Coverage 0.061 gallon per sq ft²

Step 4. (Optional) Apply the Lava 20 Top Coat over the entire area coverage 1 gallon per 215 sq ft². If using any colour Top Coat and Quartz or Aggregate for an Anti Slip Finish the consumption rate is typically halved due to the textured granular surface; approximately 1 gallon per 100 sq ft² depending on the size of the aggregate / quartz.

B. Metal/Steel

Surface needs to be clean and dry; any rust needs to be treated before Lava Prime

Application.

Step 1. Fill and smooth any crack or voids with the Owl PU Mastic

Step 2. Prime the whole area with Lava Prime at a rate of one gallon per 203 sq ft² & allow the dry for 2 -3 hours Step 3. Reinforce all joints using the polyester fabric tape. Apply Lava 20 over the joint then cut your tape to size place the tape over the joint, then apply more Lava 20 to embed the tape.

Step 4. Simply coat the whole area with Lava 20 at a rate of 0.061 gallon per sq ft²

Step 5. (Optional) Apply the Lava Topcoat over the entire area coverage 1 gallon per 215 sq ft². If using any colour Top Coat and Quartz or Aggregate for an Anti Slip Finish the consumption rate is typically halved due to the textured granular surface; approximately 1 gallon per 100 sq ft² depending on the size of the aggregate / quartz.



Lava 20 Fast Primer

TECHNICAL DATA SHEET

Solvent Based, Quick Drying, Polyurethane Primer

Product descrip	tion	Advantages
	er is a polyurethane primer that is translucent, netrating, quickly drying, and rapidly curing.	 Offers high tensile and impact strength Easy to apply (roller or brush) Dries quickly Penetrates deeply Anchors well to porous surfaces
PRODUCT INFO	RMATION	 Provides resistance to excessive moisture
Chemical Base	Ground and air moisture-cured single- component polyurethane solvent-based primer.	 Heat and frost-resistant Prevents the formation of dust Chemically resistant.
Packaging	4 kg metal pails	
Colour**	Brown-yellow	
Shelf Life	12 months from date of production	
Main Uses		Consumption

Mostly used on porous surfaces such as concrete, masonry, gypsum, and timber as a primer for polyurethane waterproofing varnishes and polyurethane joint adhesives.

0.200 kg/m² in one layer

This coverage is based on practical application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature, humidity, application method and finish required can alter consumption.

Technical Data*

Property	Results	Test Method
Composition	Polyurethane pre-polymer.	
	Solvent-based	
Adhesion to concrete	>2.5 N/mm ² (concrete failure)	EN 1542
Resistance to water pressure	No leak {Im water column,	DIN EN 1928
	24h) -30°Cto +90°C	
Service temperature	-30° Cto +90° C	Inhouse lab
Application temperature	S ⁰ c to 35°C	Conditions: 20°c, 50% RH
Tack free time	1 hour	Conditions: 20°c, 50% RH
Overcoating life	<1 hour	Conditions: 20°c, 50% RH
Final curing time	7 days	Conditions: 20°c, 50% RH



Application

Surface Preparation

For the best quality and longevity, thorough ground preparation is necessary. The surface must be free of any pollution that could compromise the membrane's stickiness and be clean, dry, and sound. The optimum moisture content should be no more than 5%. Impact strength of the substrate should be at least 25 MPa, and viscous bond strength should be at least 1.5 MPa. At least 28 days must pass before new concrete constructions are ready. It is necessary to use a grinding machine to get rid of old, loose coats, grime, grease, oils, organic compounds, and dust. Potential ground imperfections must be smoothed off. Grinding dust and any loose surface fragments must be completely cleaned.

WARNING: Avoid washing the surface with water! Metal-ball blasting equipment should not be used to smooth the surface because the force of the heavy metal-ball hits will damage the cohesiveness and durability of the concrete surface.

Priming

Apply Lava 20 Fast Primer by roller or brush, until the surface is covered. You can use airless spray allowing a considerable saving of manpower. While the primer is still a bit tacky, apply the polyurethane coating or the polyurethane joint sealant.

RECOMMENDATION: If the surface is very brittle, like lightweight concrete or high porous cement screed, apply two layers of Lava 20 Fast Primer

Safety Measures

Lava 20 Fast Primer contains isocyanates. See information supplied by the manufacturer. Flammable. Please study the Safety Data Sheet. PROFESSIONAL USE ONLY.

Our technical advice for use, whether verbal or written, is given in good faith and reflect the current level of knowledge and experience with our products. When using our products, a detailed object-related and qualified inspection is required in each individual case in order to determine whether the product and /or application technology in question meets the specific requirements and purposes. We may guarantee only that our products are compliant with their technical specification; correct application of our products therefore falls entirely within your scope of liability and Users are responsible, in any case, for complying with local legislation and for obtaining any required approvals or authorizations, when necessary, either for their purchase and/or for their use. Values in this technical data sheet are given as examples and may not be regarded as specifications. For product specifications contact our R+D department. The new edition of the technical data sheet supersedes the previous technical information and renders it *All values represent typical values and are not part of the product specification.
 **: The applied sealant might yellow and/or fade upon UV exposure.



Lava 20

TECHNICAL DATA SHEET

Single Component Polyurethane Liquid Waterproofing System

Product description

Lava 20 is a professional-grade polyurethane membrane for long-term waterproofing that is liquid-applied, incredibly resilient, cold applied, and cold-cured.

The Lava 20, which has high mechanical, chemical, thermal, UV, and natural element resistance qualities, is made of pure viscoelastic waterproof polyurethane resins.

Dries in contact with moisture and air.

Advantages

- Easy to use (roller or airless spray).
- A flawless, jointless membrane is formed when applied.
- Water and frost resistant.
- Can be applied to green roofs since it can withstand root encroachment.
- Up to 2 mm of crack mending even at -10 °C.
- Offers porosity for moisture, allowing the surface to breathe.
- Offers exceptional temperature resistance; it never becomes brittle.
- Offers superb weather and UV protection.
- Covers old bitumen- and asphalt-based felts to waterproof them without removing them beforehand.
- Offers high solar reflectivity, which aids with Thermo insulation. Retains its mechanical characteristics between - 40° C and +90° C.
- The waterproofed surface can be utilized for both home and public pedestrian and motor traffic.
- It is resilient to detergents, oils, seawater, and household chemicals.
- If the membrane becomes substantially degraded, it can be restored immediately.
- Received worldwide acclaim for more than 15 years
- Application does not require the use of an open flame (torch).

Consumption

1,4 - 2,5 kg/m² applied in one, two or three layers.

Its coverage is dependent on proper application with a roller onto a smooth surface. Consumption may vary depending on surface porosity, temperature, and application technique.

Consumption increases when fabric reinforcing is used.

Colors

Lava 20 is supplied in white and light grey. Other colors may be supplied on demand.

Certifications

Uses

According to the European Union Directive for liquid-applied roof waterproofing kits ETAG 005, the Lava 20 was submitted for testing by the German state testing institute for construction materials MPA-Braunschweig and was declared to be compliant.



The European Technical Assessment (ETA), the CE mark, and certification in accordance with the EOTA (European Organization of Technical Approval) were awarded to the Lava 20 by the German State Institute for Construction Techniques DIBt-Berlin. Depending on the applied thickness, the European Technical Assessment (ETA) is valid for two categories of use (W2 and W3).

Also, a number of laboratories in various nations throughout the world evaluated and authorized the Lava 20.

Lava 20 also has BBA certification. Agrement Certificate 20/5752. Lava 20 is fire rated and certified B-ROOF (T4) (European/British Standard) which is equivalent to Class A Fire Rating (U.S.A. Standards).

- Flat or Pitched Roof Waterproofing
- Waterproofing of Terraces, Patios, and Balconies
- Waterproofing of Wet Areas (under-tile) in Bathrooms, Kitchens, Terraces, Accessory Rooms, etc.
- Waterproofing of pedestrian and automobile traffic decks, green roofs, flowerbeds, and outdoor areas.
- Waterproofing of outdated bitumen felts, asphalt felts, BUR, EPDM and PVC membranes, OSB, Plywood, Concrete, Metals, Insulation boards, Spray foam, cement boards and old existing coatings ie. Acrylics etc.
- Waterproofing and protecting concrete buildings, such as bridge decks, tunnels, stadium stands, parking lots, etc.



European Technical Approval: ETA05/0197 DIBt

Levels of use categories according to ETAG005, for liquid-applied Polyurethane waterproofing kits:

Working life expected:	W3	25 Years
Climate Zone:	Mand S	All
Imposed loads:	P1 to P4	Very High (maximum load)
Roof slopes:	S1 to S4	<5° to >30°
Lowest surface temperature:	TL4	-30°C
Highest surface temperature:	TH4	+90°C
Reaction to fire:	Class E, Brooft4, DIN 4102-1, DIN 4102-7	EU Norm
Resistance to wind loads	50 kPa	EU Norm

Working life expected:	W2	10 Years
Climate Zone:	Mand S	All
Imposed loads:	P1 to P3	Hiah
Roof slopes:	S1 to S4	<5° to >30°
Lowest surface temperature:	TL3	-20°C
Highest surface temperature:	TH4	+90°C
Reaction to fire:	Class E, Brooft4, DIN 4102-1, DIN 4102-7	EU Norm
Resistance to wind loads	50 kPa	EU Norm

Technical Data*

PROPERTY	RESULTS	TEST METHOD
Elonaation at Break	> 600 %	ASTM D 412 / DIN 52455
Tensile Strenath	> 4 <i>NI</i> mm ²	ASTM D 412 / DIN 52455
Water Vapor Permeability	> 25 gr/m²/day	ISO 9932:91
Resistance to mechanical damage by static impression	High Resistance (class:P3)	EOTA TR-007
Resistance to mechanical damage by dynamic impression	High Resistance (class: P3)	EOTA TR-006
Resistance to Water Pressure	No Leak (1m water column, 24h)	DIN EN 1928
Adhesion to concrete	>2,0 N/mm ² (concrete surface failure)	ASTM D 903
Crack Bridaina Capability	up to 2 mm crack	EOTA TR-008
Hardness (Shore A Scale)	65-70	ASTM D 2240 (15")
Resistance to Root Penetration	Resistant	UNE 53420
Solar Reflectance (SR)	0.87	ASTM E903-96
Solar Emittance (e)	0.89	ASTM E408-71
Thermal Resistance (80° C for 100 days)	Passed - No significant changes	EOTA TR-011
UV accelerated ageing, in the presence of moisture	Passed - No significant changes	EOTA TR-010
Resistance after water aging	Passed	EOTA TR-012
Hydrolysis (5% KOH, ?days cycle)	No sianificant elastomeric chanae	Inhouse Lab
Construction Material Fire class	B2	DIN 4102-1
Resistance to Flyina Sparks and Radiatina Heat	Passed	DIN 4102-7
Service Temperature	-30°C to +90°C	Inhouse Lab
Shock Temperature (20min)	200°c	Inhouse Lab
Rain Stability Time	3-4 hours	
Light Pedestrian Traffic Time	18-24 hours	Conditions: 20° c , 50% RH
Final Curing time	7 days	
Chemical Properties	Good resistance against acidic and all seawater and oils.	cali solutions (5%), detergent

Application

Surface Preparation

For the best quality and longevity, careful surface preparation is necessary.

The surface must be free of any pollution that could compromise the membrane's adhesion. Optimum moisture content shouldn't be higher than 5%. Compressive strength of the substrate should be at least 25 MPa, and viscous strength properties should be at least 1.5 MPa. At least 28 days must pass before new concrete structures are ready. A grinding machine must remove dust, filth, fats, oils, organic materials, and old, loose coatings. Potential surface imperfections must be smoothed off. Grinding dust and any loose surface fragments must be completely cleaned.

WARNING: Avoid washing the surface with water!



Repair of cracks and joints:

The careful sealing of existing cracks and joints before the application is extremely important for long lasting waterproofing results. Clear ridges and cracks in concrete of any debris, residue, or other contaminates. Use the Lava 20 Primer locally and let it dry for two to three hours. Using Owl PU Mastic sealant, fill all prepared cracks. Then, apply Lava 20 in a layer. When wet, cover any cracks with a stripe of the polyester fabric that is properly cut and 250, 200mm broad and centered. To let it soak, press. Then, apply enough Lava 20 to the polyester Fabric to completely cover it. Wait 12 hours for the cure.

Remove any debris, residue, or other contaminants from concrete expansion joints and control joints. If necessary, widen and deepen joints (cut them open). The depth of the prepared movement joint should be between 10-15 mm. The movement joint's breadth to depth ratio should be around 2:1.

Only the bottom of the joint should be sealed with Owl PU Mastic Joint-Sealant. Apply a stripe layer of Lava 20 that is 200mm wide, centered above and inside the joint, using a brush. With the help of an appropriate instrument, push the polyester Fabric deeply inside the joint until it is saturated and the joint is completely covered from the inside. Put the fabric over the wet coating. The fabric should then be completely saturated with Lava 20. After that, insert a polyethylene cord with the appropriate diameters into the joint and press it firmly on the soaked fabric there. Apply Owl PU Mastic sealant to the joint's remaining open space. Never cover. Give the cure 12 to 18 hours.

Priming

Concrete, cement screed, or wood should be primed with Lava 20 Quick Primer since they are particularly absorbent surfaces. Observe the primer's technical instructions and give it time to cure.

Waterproofing membrane

Before using, thoroughly stir. Pour the Lava 20 over the cleaned and primed surface, then spread it out using a roller, brush, or squeegee to cover the entire area. You can utilize airless spray to significantly reduce the amount of labor required. AVOIDING PROBLEM AREAS: Always reinforce with polyester Fabric any wall-to-floor connections, 90° angles, chimneys, pipelines, waterspouts (siphon), etc. To accomplish this, place a correctly cut piece of polyester Fabric on top of the still-wet Lava 20, push it to absorb, and then saturate it once more with Lava 20. Contact our R+D department for comprehensive application instructions using the polyester Fabric. We advise using the polyester Fabric to strengthen the entire surface. Overlap your stripes by 5-10 cm.

Apply another coat of Lava 20 after 12 to 18 hours, but no later than 48 hours. Apply a third layer of Lava 20 for demanding applications.

<u>ADVICE</u>: Do not apply the Lava 20 product in layers that are thicker than 0.6 mm (dry film). The ideal temperature range for application and cure is between 5°C and 35°C. High temperatures hasten curing while low temperatures delay it. Excessive humidity could have an impact on the finish.

Finishing

Apply one or two applications of the Lava 20 Top-Coat over the Lava 20 if a color-stable and chalk-free surface is needed. If a dark final color is desired, the application of the Lava 20 Top-Coat (Any Colour) is especially necessary.

Please refer to their technical instructions or get in touch with our R+D Department for information on the various Top-Coats application techniques. Lava 20 and/or Lava 20 SYSTEM should not be used when they are wet. Sprinkle appropriate aggregates onto the still-wet coating to create an anti-slip surface to prevent slickness on rainy days. For further information, please contact our R+D Department.

Packaging

Lava 20 is supplied in 25 kg, 15 kg, 6 kg, 1kg metal pails and 250 kg barrels. Pails should be stored in dry and cool rooms for up to 12 months. Protect the material against moisture and direct sunlight. Storage temperature: 5°-30° C. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

Safety measures

Lava 20 contains isocyanates. See information supplied by the manufacturer. Please study the Safety Data sheet. PROFESSIONAL USE ONLY

Our technical advice for use, whether verbal, writtencr in tests, is given in good faithand reflect the current level of knowledge and experience with our products. When using our products, a detailed object-related and qualified inspection is required in each individual case in order to determine whether the product and /cr application technology in question meets the specific requirements and purposes. We many guarantee and yeah currents are compliant with their technical generation of our products therefore falsementirely within your coope of liability and levers are responsible, in any correct application for products are complying with local legislation and for obtaining any required approvals or authorizations, when necessary, either for their purchase and/or for their use. Values in this technical data sheet are given as examples and may not be regarded as specifications. For product specifications contact our R+D department. The new edition of the technical data sheet supersedes the previous technical information and renders it invalid. It is therefore necessary that you always have to hand the current code of practice.

All values represent typical values and are not part of the product specification. In sample preparation the lava 20 Catalystwas used as an accelerationadditive. The applied coating might yellow and/or fade upon UV Exposure.



Lava 20 Catalyst

TECHNICAL DATA SHEET

Accelerating Additive

Product Description

Lava 20 Catalyst is an accelerating additive for use with the Lava 20. liquid applied polyurethane waterproofing membranes.

Advantages

When used with the Lava 20 System, Lava 20 Catalyst speeds up the smooth curing of the liquid-applied polyurethane waterproofing membranes. This enables an over-coating to be completed in three hours even in colder climates. When combined with polyester FABRIC using the wet-in-wet application process, Lava 20 Catalyst enables liquid-applied polyurethane waterproofing membranes to be put in thicker layers without creating bubbles.

Uses

Lava 20 Catalyst is mainly used when Lava 20, needs to be applied in very low temperatures or when Lava 20, needs to be applied in combination with polyester FABRIC in wet-in-wet application method (higher coating thicknesses in one layer).

Consumption

The mixing ratio of Lava 20 liquid-applied polyurethane waterproofing membranes to Lava 20 Catalyst is: Lava 20 liquid membrane: Lava 20 Catalyst= 100:2 or 100:3 by weight (so: 25kg: 0,5kg or 25kg: 0,75kg)

Dosage*

Mixing Ratio of Lava 20 to Lava 20 Catalyst	Between 25kg to 0, 50kg and 25kg to 0,75kg (100 : 2 and 100:3 by weiaht)
Pot Life @20°C, 100ml	20min (3%) - 30min (2%)
Rain stability Time @ 20°C, 1.5mm coating thickness	3hours (2%) - 1,5-2hours(3%)

Application

Before using, thoroughly mix Lava 20 liquid-applied polyurethane waterproofing membranes. The right amount of Lava 20 Catalyst should be added. According to the recommended mixing ratio, Lava 20 Catalyst and Lava 20 liquid-applied polyurethane waterproofing membranes should be stirred together using a low speed mechanical mixer for three to five minutes. <u>ATTENTION</u>: The ingredients must be carefully mixed, paying close attention to the walls and bottom of the bucket, until the mixture is completely smooth. After combining, pour the liquid and spread it out over the surface that will be waterproofed. It is necessary to observe and adhere to all Lava 20 liquid-applied polyurethane waterproofing membrane application instructions and/or practices. <u>ATTENTION</u>: Make sure to use Lava 20 liquid-applied polyurethane waterproofing membranes+ Lava 20 Catalyst mixture, within the stipulated Pot Life.

Packaging

Lava 20 Catalyst is supplied in 1 kg, 0.750 kg, 0.450 kg and 0.180 kg metal pails. Pails should be stored in dry and cool rooms for up to 12 months. Protect the material against moisture and direct sunlight. Storage temperature: 5°-35° C. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

Safety measures

See information supplied by the manufacturer. Please study the Safety Data Sheet.



PROFESSIONAL USE ONLY

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* All values represent typical values and are not part of the product specification.



Lava 20 Clear Top Coat

Translucent Liquid Polyurethane Waterproofing Coating

Product Description

Lava 20 Clear Top Coat is a long-lasting

polyurethane waterproofing coating that is translucent & tough. Its high-tech coating is transparent and elastic even after aging and is UV-stable, non-yellowing, weather-stable, alkali and chemical resistant.

Lava 20 Clear Top Coat shields and waterproofs natural surfaces from acid rain, fog, frost, and water penetration. Plastic surfaces that have oxidized and aged appear more transparent after being coated with Lava 20 Clear Top Coat. Damaged glass surfaces are waterproofed by it.

For sand carpet floor coating applications, Lava 20 Clear Top Coat is also utilized as a transparent binder resin, particularly for external applications where flexibility and UV stability are required.

Lava 20 Clear Top Coat is using a unique curing system (moisture triggered), and unlike other similar systems it does not react with moisture (moisture-cured) and does not form bubbles

PRODUCT INFORMATION

Chemical Base	Cold-curing, solvent-based, single- component aliphatic polyurethane
Packaging	5 or 20 kg metal pails
Colour	Transparent

Shelf Life 9 months from date of production

Main Uses

Waterproofing of:

- Decks and patios
- Wood
- Preservation of Natural Stones
- · Porcelain Surfaces
- Glass and Crystal
- Opaque Plastics (like Polyacrylate and Polycarbonate)Sand carpet outdoor floor sealing applications using adhesive resin

Advantages

- Easy to use (roller or airless spray);
- A flawless, jointless membrane is formed when applied.
- UV stable
- Resistant to raw sewage and frost;
- The waterproofed surface can be used for domestic (light) foot traffic

TECHNICAL DATA SHEET

- Resistant to detergents, oils, seawater, and household chemicals
- Provides water vapor permeability, allowing the surface to breathe
- Excellent heat resistance, preventing it from softening
- Excellent weather resistance
- Excellent adhesion to ceramic tiles, and excellent adherence to glazed surfaces.

Consumption

0,800 - 1,200 kg/m² in two or three layers

This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature and application method can alter consumption.



Technical Data* PROPERTY RESULTS TEST METHOD Polyurethane high-solids pre-polymer Composition Elongation at Break 220% DIN EN ISO 527 >20 N/mm ² Tensile Strength DIN EN ISO 527 Gloss retention after 2000h of accelerated aging Good DIN 67530 (DIN EN ISO 4892-3, 400 MJ/m2) Surface chalking after 2000h of accelerated aging No chalking observed. ASTM G154 Chalkina arade 0 Hardness (SHORED Scale) 25 ASTM D 2240 Resistance to Water Pressure No Leak (1m water column, 24h) **DIN EN 1928** Permeability to CO₂(measured in CE system) 0.39g/m²d EN 1062-6 Water vapour permeability (measured in CE system) 5.15g/m²d EN ISO 7783 0.008 kg/m².h^{0.5} Capillary absorption and permeability to water (measured EN 1062-3 in CE system) Adhesion to absorbent ceramic tile >2,0 N/mm² (ceramic tile failure) EN 1542 Hydrolysis (5% KOH, ?days cycle) No significant elastomeric change Inhouse Lab Inhouse Lab Service Temperature -40°C to +90°C Tack Free Time 6-8 hours Light Pedestrian Traffic Time 24 hours Conditions: 20°C, 50% RH Final Curing time 7 days Chemical Properties Good resistance against detergents, segwater and oils.

Certifications

EN1504-2: Surface protection for concrete. (0.8kg Lava 20 Clear Top Coat)

Application as a Transparent Waterproofing Coating. Surface Preparation

For the best quality and longevity, careful surface preparation is necessary. The surface must be free of any pollution that could compromise the membrane's adhesion and be clean, dry, and sound. No more than 5% of the total weight should be moisture. At least 28 days must pass before new concrete constructions are ready. It is necessary to remove dust, organic materials, grease, oils, and old coatings.

ATTENTION: Surfaces with trapped moisture (e.g. trapped moisture under tiles) must be left to dry completely (max. 5% moisture), before the application of Lava 20 Clear Top Coat.

WARNING: Do not apply Lava 20 Clear Top Coat on ceramic surfaces with ascending nitric salts in the joints, without suitable pretreatment. Do not apply Lava 20 Clear Top Coat on surfaces treated in the past with active silane, siloxane, silicon or other waterrepellents, because of expected poor adhesion. We recommend an adhesion test, if circumstances and surface history are not clear. On marble and granite please perform an adhesion test, to ensure that adhesion is proper.

Repair of cracks and joints:

The careful sealing of existing cracks and joints before the application is extremely important for long lasting waterproofing results. Clean concrete cracks, hairline cracks, expansion joints and control joints of dust, residue or other contamination. Prime locally with Lava 20 Primer and allow 2-3 hours to dry. Fill all prepared cracks and joints with Owl PU Mastic sealant. Allow to cure.



Transparent waterproofing membrane

Apply Lava 20 Clear Top Coat over the primed surface, spreading it out using a roller or a trowel with the appropriate teeth until the entire area is coated. Apply a second coat of Lava 20 Clear Top Coat with a roller or brush after 12 hours, but no later than 18 hours. Apply a third coat of Lava 20 Clear Top Coat for improved waterproofing and durable effects.

Attention: Do not apply Lava 20 Clear Top Coat in layers that are thicker than 1 mm of dry film. The ideal temperature range for application and cure is between 5° C and 35° C. High temperature accelerates curing while low temperature delays it. Excessive humidity could have an impact on the finish.

WARNING: While wet, Lava 20 Clear Top Coat and/or Lava 20 SYSTEM are slippery. Sprinkle appropriate aggregates onto the stillwet coating to create an anti-slip surface to prevent slickness on rainy days. To learn more, kindly get in touch with our R+D Department.

For best results, the temperature during application and cure should be between 5°C and 30°C. Low temperatures retard cure while high temperature speeds up curing. High humidity may affect the final finish and might create surface pinholes/bubbles.

Storage Conditions: Lava 20 Clear Top Coat pails should be stored in dry and cool rooms. Protect the material against moisture and direct sunlight. Storage temperature: 5°-30°C. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

Lava 20 Clear Top Coat contains isocyanates. See information supplied by the manufacturer. Please study the Safety Data Sheet.

PROFESSIONAL USE ONLY

Safety measures

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TECHNICAL DATA SHEET

Lava Detail 20

Fiber-Reinforced Waterproofing Membrane Composed of Liquid Polyurethane For Intricate Roofing Detailing

Product description				
0:		Received at		41-1

Single-component, liquid-applied, thixotropic, consistently flexible, fiber-reinforced polyurethane membrane Lava Detail 20 is used for long-lasting waterproofing.

Cures by reaction with ground and air moisture.

Advantages

- Easy to use (brush or roller)
- Resistant to water and rain; produces a smooth layer with no joints or potential cracks
- Frost & water resilient
- Preserves its mechanical characteristics between 30°C and + 80°C
- Provides porosity for moisture
- Complete surface adhesion with no further anchoring
- If the layer is damaged, it can be restored locally in minutes
- Low cost maintenance

Uses

Lava Detail 20 is mainly used to create waterproof seals on difficult and complex roofing details such as:

- Wall-floor connections,
- Flashings and 90° angles,
- Light domes,
- Rooflights,
- Chimneys,
- Pipes,
- Gutters, etc.

Consumption

2 - 3 kg/m² depending on application. This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature and application method can alter consumption.

In case of, Fabric reinforcement, consumption may alter.

Surfaces

The primary application for Lava Detail 20 is the construction of waterproof seals between various building materials, such as Bitumen felts, PVC membranes, concrete, mortar, and screed, as well as various metals and wood.

Colors

Lava Detail 20 is supplied in Grey and Black.

Technical data*

PROPERTY	RESULTS	TEST METHOD
Composition	Polyurethane high-solids pre-polymer	
Elongation at Break	> 250 %	ASTM D 412
Tensile Strength	> 2 N/mm ²	ASTM D 412
Water Vapor Permeability	> 20 or/m ² per 24 hours	ISO 9932:91
Resistance to Water Pressure	No Leak (1m water column, 24h)	DIN EN 1928
Adhesion to concrete	> 2,0 N/mm ² (concrete failure)	ASTM D 903
Hardness (Shore A Scale)	65-70	ASTM D 2240
Application Temperature	5°C to 35°C	
Rain Stability Time	3-4 hours	Conditions: 20°C, 50% RH
Light Pedestrian Traffic	12-18 hours	
Final Curino time	7 days	
Chemical Properties	Good resistance against acidic and alcalic solutio oils.	ns (5%), detergents, seawater and



Certifications

According to the European Union Directive for liquid-applied roof waterproofing kits ETAG 005, the Lava Detail 20 was examined by the German state testing institute for construction materials MPA-Braunschweig and was confirmed to be compliant.

CE

The European Technical Assessment (ETA), the CE mark, and certification in accordance with the EOTA (European Organization of Technical Approval) were awarded to the Lava Detail 20 by the German State Institute for Construction Techniques DIBt-Berlin. Depending on the applied thickness, the European Technical Assessment (ETA) is valid for two categories of use (W2 and W3).

Application

Surface Preparation/ Priming

For the best quality and longevity, careful surface preparation is necessary. The surface must be free of any pollution that could compromise the coating's adhesion and be clean, dry, and sound. New concrete structures must dry for a minimum of 28 days. A grinding machine must remove dust, fats, oils, organic materials, and old coatings. Potential surface imperfections must be smoothed off. Grinding dust and any loose surface fragments must be completely cleaned. Never use water to clean the surface!

Priming

Please refer to Lava Detail 20 Surface preparation/ priming table.

Lava Detail 20 surface preparation/ priming table*

Surface preparation	Preparation	Primer not necessarv	Primer recommended
Polymeric Bitumenfelt (APP/SBS)	*5	Х	
Chippings finished Bitumenfelt (APP/SBS)	*4	X	
Chippings finishes Oxidized Bitumenfelt	*4	X	
Plain Oxidized Bitumenfelt	*5	X	
Painted surfaces	*3	x	
Steel	*1, *3	X	
Aluminum	*1, *3	Х	
Copper	*1	Х	
Zinc	*1	X	
Concrete	*2, *6		Х
Liqhtweight Concrete	*2, *6		X
Plaster	*2, *6	I. T	Х
Screed	*2, *6		X
Brick	*2, *6		Х
Stones	*2, *6		X
EPDM Membranes	*1, *7	Х	
PVC Membranes	*1, *7	X	
PVC Riqid	*1	X	
Wood	*2		Х
Polyester	*1, *7	X	
Acrylic Glass	*1	X	
Glass	*1	Х	

1. Sand or use a grinding wheel to smooth the surface before applying.*

2. Mineral substrates have a maximum residual moisture level of 5%. Cementitious surfaces that are brand-new must be at least 28 days old. Remove any mechanically loose parts.*

3. Thoroughly scrape off old paint.

4. The Bitumenfelt's slate chippings are bonded by the suitable Lava 20 primer.*

5. Use a fire torch to melt the surface, then immediately cover it with sufficient dry quartz sand (0.4-0.8mm).*

6. Use a wire brush to rough up the surface before coating.*

7. Always conduct an adhesion test before application. Contact Owl Waterproofing's application department for substrates that are not listed.*

** Due to the current state of laboratory and practical expertise, all information on the treatment of surfaces should be taken as indicative. Deviations are conceivable due to the wide variety of materials available. Thus, it is impossible to guarantee that the information is entirely accurate. An adhesion test is required to ensure compatibility for the particular function because of the various object requirements and the fluctuating conditions. Thus, preliminary coating adhesion studies are always advised. We would gladly evaluate your surface samples if questions arise regarding the coating's appropriateness for your surface.



Detail Waterproofing membrane

Before using, thoroughly and carefully stir Lava Detail 20 with a wooden staff. Don't use a power drill. Use a 10 cm wide brush to evenly apply the Lava Detail 20 to the prepared and/or primed surface. Apply a second layer 18 to 36 hours later. Always reinforce with chopped strand matting/ polyester tape. Apply a correctly cut piece of chopped strand matting/ polyester tape. to the still-wet Lava Detail 20, press it to soak, and then saturate it once more with sufficient Lava Detail 20 to complete the task.

<u>ATTENTION</u>: Avoid using the Lava Detail 20 on surfaces that are below +5[°]C during application and for 4 hours following, on frozen surfaces, in the rain or mist, on wet Lava Detail 20 Primer, or on surfaces with rising humidity. High temperatures hasten curing while low temperatures delay it.

Finishing

Apply one or two layers of the Lava 20 Top Coat on top of the Lava Detail 20 to create a surface that is color stable and free from chalking. If a dark final color is desired, the application of the Lava 20 Dark Grey Top-Coat is especially necessary. Alternately, to protect against UV rays and improve the end result optically, suitable aggregate can be broadcast over the final (second) layer of the Lava Detail 20 while it is still wet, until full saturation. Please refer to the various finishing application techniques' technical instructions or get in touch with our R+D Department for more information.

WARNING: Wet conditions make the Lava Detail 20 and/or Lava 20 System slippery. Sprinkle appropriate aggregates onto the still-wet coating to create an anti-slip surface to prevent slipperiness on rainy days. For further information, please contact our R+D Department.

Packaging

Lava Detail 20 is available in 6 kg pails. Pails should be kept for up to nine months in cool, dry areas. The material needs to be protected from moisture and direct sunshine. Storage range: 5° to 30° C. Items must be kept in their original, unused containers with labels on the application precautions, batch number, manufacturer's name, and product identification.

Safety measures

Lava Detail 20 contains isocyanates. See information supplied by the manufacturer. Please study the Safety Data sheet. PROFESSIONAL USE ONLY

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Owl PU Mastic

TECHNICAL DATA SHEET

Polyurethane Joint Sealer with Rapid Cure

Owl PU Mastic is a thixotropic dynamically flexible polyurethane patching and joint-sealing adhesive.

Grey, White

PRODUCT INFORMATION

Chemical Base	Low-modulus, single-component polyurethane elastomer, healed by ground and air moisture.
Packaging	0,600ml sausage

Advantages

- Easy to use
- Holds its mechanical qualities throughout a temperature range of - 30° C to +90° C
- Offers outstanding adhesion to the majority of construction materials
- Resistant to detergents, oils, fuels, saltwater, water, heat and frost
- Resistant to deterioration
- Tolerant of continuous movement

Main Uses

Colour**

Shelf Life

Owl PU Mastic is used for:

- Joints between timber, metal, aluminum, or PVC frames and masonry
- materials
- Joint sealing of interior/exterior movement joints
- · Mastic for patching cracks

Consumption depends on volume of the joint or crack to be sealed.

Consumption

12 months from date of production

- Extension & caulking joints in nearly all construction

PROPERTY	RESULTS	TEST METHOD
Composition	Polyurethane mastic (pre-polymer)	
Elongation at Break	600%	DIN 53504
Modulus of elasticity (at 100%)	0.30 N/mm ²	DIN 53504
Tensile Strength	1.2 N/mm ²	DIN 53504
Hardness (Shore A Scale)	15-25	DIN 53505, ASTM D 2240
Aoolication Temperature	5°C to 35°C	Inhouse Lab
Skin formation time	15 min <i>(at</i> 23oC, 50%RH)	Inhouse Lab
Polvmerized thickness after 24 hours	3 mm <i>(at</i> 23oC, 50%RH)	Inhouse Lab
Resistance to flow at 23oC	<3mm	ISO 7390
Resistance to flow at 50oC	<3mm	ISO 7390
Chemical Properties	Good resistance against water, cleaning agents, and hydrocarbons, acidic and basic solutions (10%). Due to the sensitivity of polyurethane to UV rays, ligh change in appearance does not modify their mechanical	t shades change colour. This

Technical Data*



Application

Surface Preparation

Oils and other pollutants that could negatively impact the mastic's adherence must be removed from the surface. Eliminate all extra stuff. Concrete surfaces need to be sturdy and dry (at least 28 days). Optimum moisture content is 5%. In terms of adhesiveness, coloration, and chemical compatibility, users must ensure that the mastic is appropriate for the surface (test a section first).

Making the joint:

Correctly size the joint. We recommend a width between 10 and 30 mm. The Width/depth ratio of the joint should be about 2:1.

Movement joint sealing for Roof waterproofing purposes:

Only the bottomof the joint should be sealed with Owl PU Mastic Joint-Sealant. Apply a stripe layer of Lava 20, 200mm wide and centered over the joint, using a brush. With the aid of an appropriate tool, press the polyester FABRIC into the joint until it is well saturated and thejoint is completely covered from the inside. The fabric should then be completely saturated with Lava 20. After that, insert a polyethylene cord with the appropriate diameters into thejoint and press it firmly on the soaked fabric there. Apply Owl PU Mastic sealant to thejoint's remaining open region and let it cure for 12 hours.

Priming

If an adhesion test reveals weak adherence, priming is required. Prime absorbent surfaces such as concrete, screed, and wood with Lava 20 Quick Primer in this scenario.

Sealing

Press aflexible, non-adhesive joint filler (polyethylene cable) into the joint once the primer has dried. To prevent bubbles from forming in the joint, the joint filler needs to be devoid of any holes. Apply Owl PU mastic with pneumatic or hand-held special pistols (maximum required pressure: 3.5 kg). Avoid trapping air when applying. Use ajoint nail or putty knife to smooth. Use protective strips to provide a superior finish.

Apply the mastic in one motion to narrow joints. Apply the mastic in three locations for very wide joints: the first two should be on the joint's edges, and the third should be on the filler. Clean up with some soapy water. Being sure to avoid forming air bubbles, press the mastic firmly on the joint filler and the edges. Take offthe safety barriers. After polymerization is finished, painting is possible. After performing a sectional test, use acrylic or vinyl dispersion paints.

Storage

Product should be stored in dry and cool rooms for up to 12 months. Protect the material against moisture and direct sunlight. Storage temperature: 5° -35° C. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

Safety measures

Owl PU Mastic contains isocyanates. See information supplied by the manufacturer. Please study the Safety Data sheet.

PROFESSIONAL USE ONLY

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 **: The applied sealant might yellow and/or fade upon UV exposure.



Super Quick Primer

TECHNICAL DATA SHEET

Description

Developed to meet the demand for a quicker yet still penetrating single pack primer. Whilst most other single pack Pu primers available to professional roofers are tack free in times from 2hrs our Quick Prime is ready to be overcoated in times from just 10 minutes! This creates a huge time saving when the area to be primed is small and you as the contractor would usually have to wait before installing the membrane. Not anymore! Compatible with most substrates including Concrete, wood and bituminous membranes.

echnical	Colour	Amber
ata	Specific weight at 20°C	1±0.01 kg/l
	Viscosity at 20°C	30±10 mPa.s (speed 100 – Gr.1)
	Solids	46% by weight 40% by volume
	Theoretical consumption	150 g/m ²
	ASTM D 4541 adhesion to concrete	>3 MPa
	Overapplication time at 22°C, 50% RH	20 minutes minimum 60 minutes maximum
	Storage	12 months from date of production if stored properly in original, unopened sealed packag- ing, in a dry place at temperatures between +5°C and +35°C.
		VOC: 661 g/l



Lava 20 Top Coat (Coloured: Dark Grey, White etc.)

TECHNICAL DATA SHEET

UV-resistant Aliphatic Polyurethane Top-Coat

Product Description

Advantages

Lava 20 is a coloured single-component polyurethane material which can be used over Lava 20 to prolong the life of the system even further or change the colour.

The Lava 20 Top Coats can be manufactured in different colours; generally speaking white and dark grey is readily available whilst other colours can be produced on special request; simply contact Owl Waterproofing Solutions should you require other coloured Top Coats.

The Lava 20 Top Coats are flexible coatings that have a fluid application; also Lava 20 Top Coats are slightly harder than Lava 20 and do not degrade; further Lava 20 Top Coats are UV resistant and therefore do not deteriorate from exposure to UV & rain etc.

Lava 20 Top Coats are breathable and dry quickly (about 15 minutes to dry.)

· Easy to use (roller or airless spray).

- Improves the waterproofing membrane's resilience to stress and corrosion.
- Offers high solar reflectivity, which helps with thermoinsulation.
- Color and UV resistance.
- Produces a glossy, cleanable surface
- Does not exhibit the aromatic polyurethane coatings' grainy effect;
 Maintains its mechanical qualities across a temperature range of
- 40°C to +90°C
- Water, heat, and frost resistant.

Main Uses

- Roof waterproofing
- · Roof, Terrace, balcony, and patio waterproofing
- Waterproofing footpaths, walkways, podium decks and auto decks etc.
- · Waterproofing flat or slopped roofs, balconies and decks etc

PRODUCT INFORMATION

Tochnical Data

Chemical Base One-component, solvent based, cold curing aliphatic polyurethane

Packaging	5 kg or 20 kg pails
Colour	White, Grey, Dark Grey & Other Colours Available on Request
Shelf Life	9 months from date of production

Consumption

120-250 gr/m2 in one or two layers.

Its coverage is based on effective roller application onto a flat surface under ideal circumstances. Consumption can be affected by elements like as surface porosity, temperature, humidity, application technique, and finish necessary.

PROPERTY	RESULTS	TEST METHOD	
Composition	Pigmented Aliphatic moisture triggered Polyurethane polymer. Solvent based		
Resistance to Water Pressure	No Leak	DIN EN 1928	
Elonaation at break	289%	DIN EN ISO 527	
Tensile strenath	3,72 N/mm ²	DIN EN ISO 527	
Elongation at break after 2000h of accelerated aaina (DIN EN ISO 4892-3, 400 MJ/m2)	372 %	DIN EN ISO 527	
Tensile strength after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m2)	2,68 N/mm ²	DIN EN ISO 527	
Gloss retention after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m2)	Good	DIN 67530	
Surface chalking after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m2)	No chalking observed. Chalkinq qrade 0	DIN EN ISO 4628-6	
Adhesion to the MARISEAL® 250	>2 N/mm ²	ASTM D 903	
Hardness (Shore A Scale)	65	ASTM D 2240 (15")	
Solar Reflectance (SR) (white color)	93.5%	ASTM E903-96	
UV accelerated aaeina, in the presence of moisture	Passed - No sianificant chanaes	EOTA TR-010	
Hydrolysis (5% KOH, ?days cycle)	No sianificant elastomeric chanae	Inhouse Lab	
Service Temperature	-40°C to +90°C	Inhouse Lab	
Tack Free Time	1-3 hours		
Light Pedestrian Traffic Time	12 hours	Conditions: 20°c, 50% RH	
Final Curina time	7 davs		
Chemical Properties	Good resistance against acidic and alka seawater and oils.	ali solutions (5%), detergen	



Application

Surface Preparation

For the best quality and longevity, careful surface preparation is necessary.

The surface must be free of any pollution that could compromise the membrane's adhesion and be clean, dry, and sound. No more than 5% of the total weight should be moisture. Compressive strength of the substrate should be at least 25 MPa, and cohesive bond strength should be at least 1.5 MPa. At least 28 days must pass before new concrete constructions are ready. A grinding machine must remove dust, filth, fats, oils, organic materials, and old, loose coatings. Potential surface imperfections must be smoothed off. Grinding dust and any loose surface fragments must be completely cleaned.

Top Coat

Before using, thoroughly mix the Lava 20 Top Coat.

Apply the Lava 20 Top Coat in one or two layers using a roller, brush, or airless spray.

Let the two layers to cure for 3-6 hours (but no longer than 36 hours).

The ideal temperature range for application and cure is between 5° c and 35°C. High temperatures hasten curing while low temperatures delay it. Excessive humidity could have an impact on the finish.

WARNING: When wet, the Lava 20 Top Coat and/or Lava 20 System are slick. Sprinkle appropriate aggregates onto the still-wet coating to create an anti-slip surface to prevent slickness on rainy days. For further information, please contact Owl Waterproofing Solutions.

Packaging

Lava 20 Top Coat is available in metal pails of 5 kg & 20 kg. Pails should be kept for up to nine months in cool, dry areas. The material needs to be protected from moisture and direct sunshine. 5°C to 30°C C for storage. Items must be kept in their original, unopened packaging with labels that clearly state the manufacturer, the product name, the batch number, and any application warnings.

Safety Measures

Lava 20 Top Coat contains isocyanates. See information supplied by the manufacturer. Please study the Safety Data sheet. PROFESSIONAL USE ONLY

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OWL PU MASTIC

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Safety Data Sheet According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

ECTION 1: Identification of the substance/mixture and of the company /un	dertaking
.1 Product identifier	
Frade name: OWL PU MASTIC	
.2 Relevant identified uses of the substance or mixture and uses advised Application of the substance / the mixture: Polyourethane sealant for move	
.3 Details of the supplier of the safety data sheet Manufacturer/Supplier:	
OWL WATERPROOFING SOLUTIONS	
135 Slaney Road, Dublin Industrial Estate Glasnevin, Dublin 11	
Tel: +353 01 830 2250	
Email: info@owlwaterproofing.co.uk Website: www.owlwaterproofing.co.uk	
.4 Emergency telephone number:	
C European Emergency Tel.: +353 01 830 2250	
S	
ECTION 2: Hazard identification	
2.1 Classification of the substance or mixture Classification according to Regulation EC No 1272/2008 CLP:	
GHS07	
×	
Skin Irrit. 2 H315 Causes skin irritation.	
Eye Irrit. 2 H319 Causes serious eye irritation.	
2.2 Label elements	
Labelling according to Regulation EC No 1272/2008 CLP: The product is classified and labelled according to the CLP regulation.	
Hazard pictograms:	
\wedge	
GHS07	
01007	
Signal word: Warning	
Hazard statements:	
1315 Causes skin irritation.	
1319 Causes serious eye irritation.	
Precautionary statements	
264 Wash thoroughly after handling.	(Contd. on pa
	(Contd on pa

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	(Contd. of page 1)
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P321	Specific treatment (see on this label).
P305+P351+P	338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313	If skin irritation occurs: Get medical advice/attention.
Additional inf	ormation:
EUH204 Conta	ins isocyanates. May produce an allergic reaction.
2.3 Other haz	
Results of PB	f and vPvB assessment
PBT: Not appl	icable.
vDvB · Not and	licabla

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

*

Description: Mixture: consisting of the following components.

Ingredients according Regulation	(EU) 2020/878:	
CAS: 1330-20-7 EINECS: 215-535-7 Index number: 601-022-00-9 Reg.nr.: 01-2119488216-32-XXXX	xylene Flam. Liq. 3, H226; O Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	≤10%
CAS: 100-41-4 EINECS: 202-849-4 Index number: 601-023-00-4 Reg.nr.: 01-2119489370-35-XXXX	ethylbenzene Flam. Liq. 2, H225; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H332	≤5%
CAS: 2530-83-8 EINECS: 219-784-2	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane Eye Dam. 1, H318	≤1%
CAS: 64742-47-8 EINECS: 265-149-8 Index number: 649-422-00-2	Distillates (petroleum), hydro- treated light	≤1%
CAS: 101-68-8 EINECS: 202-966-0 Index number: 615-005-00-9 Reg.nr.: 01-2119457014-47-XXXX	4,4'-methylenediphenyl diisocyanate Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204 Specific concentration limits: Eye Irrit. 2; H319: $C \ge 5 \%$ Skin Irrit. 2; H315: $C \ge 5 \%$ Resp. Sens. 1; H334: $C \ge 0.1 \%$ STOT SE 3; H335: $C \ge 5 \%$	≥0.01-<0.1%

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SECTION 4: First aid	
4.1 Description of firs	
General information:	
Allow affected people t	
Request medical help in	amediately
After inhalation:	
1. March 1996, March 1997, March 1997, A. March 1997, March 199	nconscious, secure him in a side position for transportation.
Get fresh air.	
f symptoms last, see a	loctor.
After skin contact:	and the second state of th
	er immediately, then thoroughly rinse.
Talk to a doctor if skin i	rritation persists.
fter eye contact:	
	ider flowing water for at least 15 minutes.
	nses and keep rinsing for a few minutes.
Consult a doctor if the s	
Safeguard uninjured eye	
After swallowing:	and fails of the second ment definition and
	vomit; instead, contact emergency help right away.
	ots of fresh air and drink. Make a doctor's appointment immediately.
Seek emergency medica	
	mptoms and effects, both acute and delayed
No further relevant inf	
	immediate medical attention and special treatment needed
No further relevant inf	ormation available.
SECTION 5: Firefight	ing measures
A DECEMBER OF	
5.1 Extinguishing me	
	g agents: CO2, powder or water spray. Fight larger fires with water spray.
	suitable extinguishing agents: Water with full jet
	rising from the substance or mixture
	se of fire poisonous gases are produced.
5.3 Advice for firefig	
Protective equipment	
	contained breathing gear and full protective clothes are required.
Additional information	
Separately collect conta	minated fire-fighting water. It should not go down the sewage line.
SECTION 6: Accident	al release measures
6.1 Personal precauti	ons, protective equipment and emergency procedures:
Make sure there is end	
Avoid breathing in fur	
Stay away from source	
	necessary. Keep vulnerable people at a distance.
	bid skin and eye contact.
Fut on safety gear. Ave	nu skili anu eve contact.

6.1.1 For non-emergency personnel Stay away from any leaking or flowing substances.

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6.1.2 For emergency responders

Protective gear, gloves, goggles, and a breathing device with a type A filter are required for first-aid rescuers.

6.2 Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

Do not allow to penetrate the ground/soil.

6.3 Methods and material for containment and cleaning up:

Utilize absorbent material to collect (sand, diatomite).

Make sure there is enough airflow.

Utilize a liquid binding substance to absorb liquid components.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

If applied effectively, no further safety measures are required.

Assure enough exhaustion and airflow at the worksite.

Avoid inhaling vapors.

Avoid eating, drinking, and smoking while using the product.

Avoid skin and eye contact.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Preserve the container tightly locked.

To avoid leaks, keep containers firmly in place and upright.

Requirements to be met by storerooms and receptacles:

Retain in a cold environment.

Don't let any liquid soak into the ground.

Receptacles should have ventilation.

Information about storage in one common storage facility:

Keep away from food.

Keep away from water.

Further information about storage conditions: Prevent exposure to heat and sunshine.

7.3 Specific end use(s) No further relevant information available.

8.1 Control parame	ters	
Ingredients with limit values that require monitoring at the workplace:		
CAS: 1330-20-7 xyl	ene	
WEL (Great Britain)	Short-term value: 441 mg/m ³ , 100 ppm Long-term value: 220 mg/m ³ , 50 ppm Sk; BMGV	
IOELV (EU)	Short-term value: 442 mg/m ³ , 100 ppm Long-term value: 221 mg/m ³ , 50 ppm Skin	

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CAS: 100-41-4 ethyl	benzene	(Contd. of page 4
the second se	Short-term value: 552 mg/m ³ , 125 ppm	
WEL (Great Britain)	Long-term value: 441 mg/m ³ , 100 ppm Sk	
IOELV (EU)	Short-term value: 884 mg/m ³ , 200 ppm Long-term value: 442 mg/m ³ , 100 ppm Skin	
CAS: 101-68-8 4,4'-	nethylenediphenyl diisocyanate	
WEL (Great Britain)	Short-term value: 0.07 mg/m3	
1992 1993 1994 1994 1994 1995 1995 1995 1995 1995	Long-term value: 0.02 mg/m ³ Sen; as -NCO	
DNELs		
	ene (mixture of isomers)	
Workers:		
High Exposure, Syste		
	n Exposure, Systemic, 289 mg/m ³	
	n Exposure, Local, 289 mg/m ³	
innalation, Large exp	osure, Systemic, 77 mg/m ³	
Consumers:		
	Systemic, 1.6 mg/kg	
	re, Systemic, 108 mg/kg	
	oosure, Systemic, 14.8 mg/m ³	
CAS: 100-41-4 Ethyl		
Workers:		
	re-Systemic-180 mg/kg	
	exposure-Local-293 mg/m ³	
Inhalation - Large exp	posure - Systemic - 77 mg/m ³	
Consumers:		
Oral Exposure-Large		
	osure-Systemic-15 mg/m ³	
	nethylenediphenyl diisocyanate.	
Workers:		
	systemic & local effects: 0.05 mg/m ³ .	
	temic & local effects: 0.1 mg/m ³ .	
Dermal - acute local	nic effects: 50 mg/kg bw/d.	
Consumers:	streets. 28.7 mg/cm	
	systemic & local effects: 0.025 mg/m',	
	temic & local effects: 0.05 mg/m ³ .	
	nic effects: 25 mg/kg bw/d.	
Dermal - acute local		
Oral - acute local effe		
PNECs		
	ene (mixture of isomers)	
STP: 6.58 mg/l		
Freshwater: 0.327 mg	:/1	
Soil: 2.31 mg/kg		
		(Contd. on page

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Marine water: 0.327 mg/l Intermittent releases: 0.327 mg/l Sediment (freshwater): 12.46 mg/kg Sediment (marinewater): 12.46 mg/kg CAS: 100-41-4 Ethylbenzene STP 9.6 mg/L Freshwater: 0.1 mg/l Soil 2,68 mg/kg Marine water: 0.01 mg/l Intermittent releases: 0.1 mg/l Sediment (freshwater): 13.7 mg/kg For oral use: 20 g/kg Sediment (marinewater): 1.37 mg/kg CAS: 101-68-8 4,4'-methylenediphenyl diisocyanate. Fresh water: > 1 mg/l Marine water: > 0.1 mg/l Sewage treatment plant: > 1 mg/l Soil: >1 mg/kg dry weight.

8.2 Exposure controls

8.2.1. Appropriate engineering controls

Make sure there is enough airflow. Take the necessary safety precautions while handling chemicals and mixtures.

Individual protection measures, such as personal protective equipment General protective and hygienic measures:

Avoid food, drink, and feed.

Prior to breaks and after work, wash your hands.

Keep your hands away from your skin and eyes.

Avoid eating, drinking, and smoking while using the product.

Avoid inhaling mists or vapors.

Respiratory protection:



In cases of inadequate ventilation, use an appropriate respiratory protection gear. Respiratory protection is necessary while spraying and in poorly ventilated work spaces. For brief durations of labor, a charcoal filter and particle filter A2-P2 (EN529) combination mask or an air-fed mask are advised.

Hand protection



Protective gloves resistant to chemicals (standard EN 374-1)

The material used for the gloves must be waterproof and resistant to the product, substance, or preparation. No advice for the glove material for the product, preparation, or chemical mixture can be made due to a lack of studies. Choose the glove material while taking the degradation, diffusion, and penetration rates into account

Material of gloves

Hand protection when handling the product at room temperature: Butyl rubber - IIR: thickness ≥ 0.5 mm; breakthrough time ≥ 480 min. Fluorinated rubber - FKM: thickness ≥ 0.4 mm; breakthrough time ≥ 480 min. Recommendation: contaminated gloves should be disposed of.

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Penetration time of glove material

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended. Eye/face protection



*

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:



Chemically resistant, protective work clothing (EN 14605) and boots.

Environmental exposure controls

Prevent enter of the product into drains, surface and groundwater and soil. Dispose of flushing liquids in accordance with local and national regulations.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties **General Information Physical state** Liquid Colour: Various colours Odour: Characteristic **Odour threshold:** Not determined Melting point/freezing point: Not determined Flammability Not applicable Lower and upper explosion limit Not determined Lower: Upper: Not determined Not Flammable Flash point: Auto-ignition temperature: Product is not selfigniting. **Decomposition temperature:** Not determined Not determined pH Viscosity: Not determined **Kinematic viscosity Kinematic viscosity** Not determined Dynamic: Solubility Insoluble water: Partition coefficient n-octanol/water (log value) Not determined Vapour pressure: Not determined Density and/or relative density Density at 20 °C: 1.12-1.18 g/cm3 **Relative density** Not determined Vapour density Not determined

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Trade name: OWL PU MASTIC

	(Contd. of page
9.2 Other information	
Appearance:	
Form:	Paste
Important information on protection of heal environment, and on safety.	th and
Auto-ignition temperature:	Not determined
Explosive properties:	Product does not present an explosion hazard.
Cloud point / clarification point:	
Oxidising properties	Not oxidising
Evaporation rate	Not determined
Information with regard to physical hazard	classes
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flamma	able
gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided Stable at environment temperature.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid Avoid heat, sparkles, naked flame or other sources of ignition.

10.5 Incompatible materials Amines

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Ī	Dermal	LD50	≥17,000 mg/kg (rabbit)
	Inhalative	LC50/4 h (vapour)	≥73.3 mg/l

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CAD. 15.	30-20-7 xylene	
Oral	LD50	4,300 mg/kg (rat)
Dermal	LD50	1,700 mg/kg (rabbit)
Inhalative	LC50 (4h)	5,000 ppm (rat)
CAS: 100)-41-4 ethylbenz	zene
Oral	LD50	3,500 mg/kg (rat)
Dermal	LD50	17,800 mg/kg (rabbit)
Inhalative	LC50 (4h)	4,000 ppm (rat)
CAS: 101	1-68-8 4,4'-meth	ylenediphenyl diisocyanate
Oral	LD50	2,200 mg/kg (rat)
Dermal	LD50	>9,400 mg/kg (rabbit)
Carcinog Reprodu STOT-sin	enicity Based or ctive toxicity Ba ngle exposure B peated exposur on hazard Based al toxicological	Based on available data, the classification criteria are not met. n available data, the classification criteria are not met. used on available data, the classification criteria are not met. ased on available data, the classification criteria are not met. e Based on available data, the classification criteria are not met. on available data, the classification criteria are not met. fon available data, the classification criteria are not met.
Addition Repeated		ased on available data, the classification criteria are not met.
Addition Repeated 11.2 Info	rmation on othe	ased on available data, the classification criteria are not met. er hazards
Addition Repeated 11.2 Info Endocrin		ased on available data, the classification criteria are not met. er hazards operties

Aquatic toxici	ty:
CAS: 1330-20	-7 xylene
EC50 (48h)	>7.4 mg/l (daphnia magna)
LC50 (96h)	2.6 mg/l (fis)
NOEC r (72h)	440 mg/l (algae)
CAS: 100-41-4	4 ethylbenzene
EC50 (48h)	73 mg/l (daphnia magna)
CAS: 101-68-	8 4,4'-methylenediphenyl diisocyanate
EC50	>1,000 mg/l (daphnia magna) (Daphnia magna Reproduction Test)
EC50 (72h)	>1,640 mg/l (ssu) (Freshwater Alga and Cyanobacteria, Grow Inhibition)
LC50 (96h)	>1,000 mg/l (Danio rerio) (Fish, Acute Toxicity Test)
NOEC (21d)	>10 mg/l (Daphnia magna) (Daphnia sp. Acute Immobilisation Test)
12.2 Persisten	ce and degradability No further relevant information available.

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12.4 Mobility in soil No further relevant information available.
12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods Recommendation



Dispose according to National Regulations.



Not to be disposed of with regular trash. Do not let product enter the drainage system.

Uncleaned packaging:

Recommendation: Official guidelines must be followed while disposing of materials.

14.1 UN number or ID number ADR, ADN, IMDG, IATA	Void	
14.2 UN proper shipping name ADR, ADN, IMDG, IATA	Void	
14.3 Transport hazard class(es)		
ADR, ADN, IMDG, IATA Class	Void	
14.4 Packing group ADR, IMDG, IATA	Void	
14.5 Environmental hazards:	Not applicable.	
14.6 Special precautions for user	Not applicable.	
14.7 Maritime transport in bulk according instruments	g to IMO Not applicable.	
UN "Model Regulation":	Void	

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SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture REACH Regulation 1907/2006/EC.
 Regulation (EU) 2020/878
 CLP Regulation 1272/2008/EC
 Directive 98/24/EC on safeguarding employees' health and safety against hazards posed by chemical agents at work.

Youth protection at work: amended version of Council Directive 94/33/EC.

The amended version of Directive 92/85/EEC on the adoption of measures to promote advancements in the safety and health at work of pregnant employees, new mothers, and nursing employees

Directive 2012/18/EU

Named dangerous substances - ANNEX I Substance is not listed. REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 56a, 74

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

National regulations:

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57

It doesn't contain substances of very high concern (SVHC).

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on what we know right now. This, however, does not create a legally binding business relationship or a guarantee for any particular product characteristics.

Relevant phrases

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 May cause respiratory irritation.

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H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure.

EUH204 Contains isocyanates. May produce an allergic reaction.

Training hints

On the basis of all the available knowledge, the staff should receive the proper training about safety when handling, storing, and converting the product.

Department issuing SDS:

OWL WATERPROOFING SOLUTIONS 135 Slaney Road, Dublin Industrial Estate Glasnevin, Dublin 11 Tel: +353 01 830 2250 Email: info@owlwaterproofing.co.uk Website: www.owlwaterproofing.co.uk Version number of previous version: 1

Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (REACH) PNEC: Predicted No-Effect Concentration (REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic SVHC: Substances of Very High Concern vPvB: very Persistent and very Bioaccumulative Flam. Liq. 2: Flammable liquids - Category 2 Flam. Liq. 3: Flammable liquids - Category 3 Acute Tox. 4: Acute toxicity - Category 4 Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Dam. 1: Serious eye damage/eye irritation - Category 1 Eye Irrit. 2: Serious eye damage/eye irritation - Category 2 Resp. Sens. 1: Respiratory sensitisation - Category 1 Skin Sens. 1: Skin sensitisation - Category 1 Carc. 2: Carcinogenicity - Category 2 STOT SE 3: Specific target organ toxicity (single exposure) - Category 3 STOT RE 2: Specific target organ toxicity (repeated exposure) - Category 2 Asp. Tox. 1: Aspiration hazard - Category 1 * Data compared to the previous version altered.



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SECTION 1: Ide	ntification of	the substance/mixtu	re and of the compa	ny /undertakii	ıg
1.1 Product iden	atifier				
Trade name: LA	AVA 20 QUIC	K PRIMER			
		of the substance or / the mixture: Poly	mixture and uses ad urethane primer	lvised against	Professional use
1.3 Details of th Manufacturer/S OWL WATERPI 135 Staney Road, Glasnevin, Dublin Tel: +353 01 830	Supplier: ROOFING SC , Dublin Indust n 11		et		
Email: info@owl	waterproofing.				
Website: www.ow 1.4 Emergency 1					
1.4 Emergency	terepnone nu	mber:			
Europe	ean Emergenc	y Tel.: +353 01 830	2250		
		cation tance or mixture			
2.1 Classificatio	on of the subs ccording to F		272/2008 CLP:		
Classification a	on of the subs ccording to F 2 flame	tance or mixture			1
2.1 Classificatio Classification ac GHS02 Flam. Liq. 3	on of the subs ccording to F 2 flame	tance or mixture Regulation EC No 1 Imable liquid and va			
2.1 Classificatio Classification ac GHS02 Flam. Liq. 3	on of the subs ccording to F 2 flame H226 Flan 3 health hazard	tance or mixture Regulation EC No 1 Imable liquid and va		eathing difficu	lties if inhaled.
2.1 Classificatio Classification ac GHS02 Flam. Liq. 3 GHS08	on of the subs ccording to F 2 flame H226 Flan 3 health hazard H334 May	tance or mixture Regulation EC No 1 Imable liquid and va	pour. hma symptoms or bro	eathing difficu	lties if inhaled.
2.1 Classificatio Classification ac GHS02 Flam. Liq. 3 GHS08 Resp. Sens. 1	on of the subs ccording to F 2 flame H226 Flam 3 health hazard H334 May H351 Susp	tance or mixture Regulation EC No 1 mable liquid and va l cause allergy or ast pected of causing cau	pour. hma symptoms or bro		
2.1 Classificatio Classification ad GHS02 Flam. Liq. 3 GHS08 Resp. Sens. 1 Carc. 2 STOT RE 2	on of the subs ccording to F 2 flame H226 Flam 3 health hazaro H334 May H351 Sust H373 May	tance or mixture Regulation EC No 1 mable liquid and va d cause allergy or ast pected of causing cau cause damage to or	pour. hma symptoms or bracer.	ged or repeated	
2.1 Classificatio Classification ac GHS02 Flam. Liq. 3 GHS08 Resp. Sens. 1 Carc. 2	on of the subs ccording to F 2 flame H226 Flan 3 health hazard H334 May H351 Susp H373 May H304 May	tance or mixture Regulation EC No 1 mable liquid and va d cause allergy or ast pected of causing cau cause damage to or	pour. hma symptoms or bracer. gans through prolong	ged or repeated	
2.1 Classificatio Classification ac GHS02 Flam. Liq. 3 GHS08 Resp. Sens. 1 Carc. 2 STOT RE 2 Asp. Tox. 1	on of the subs ccording to F 2 flame H226 Flam 3 health hazaro H334 May H351 Sust H373 May H304 May	tance or mixture Regulation EC No 1 mable liquid and va d cause allergy or ast pected of causing cau cause damage to or	pour. hma symptoms or bracer. gans through prolong	ged or repeated	
2.1 Classificatio Classification ac GHS02 Flam. Liq. 3 GHS08 Resp. Sens. 1 Carc. 2 STOT RE 2 Asp. Tox. 1 GHS07	on of the subs ccording to F 2 flame H226 Flan 3 health hazard H334 May H351 Susp H373 May H304 May	tance or mixture Regulation EC No 1 mable liquid and va cause allergy or ast pected of causing cau cause damage to or be fatal if swallowe	pour. hma symptoms or bracer. gans through prolong	ged or repeated	
2.1 Classificatio Classification ac GHS02 Flam. Liq. 3 Carc. 2 STOT RE 2 Asp. Tox. 1 Carc. 1 Carc. 2 GHS07 Acute Tox. 4	on of the subs ccording to F 2 flame H226 Flam 3 health hazard H334 May H351 Sust H373 May H304 May H304 May	tance or mixture legulation EC No 1 mable liquid and va cause allergy or ast bected of causing cau cause damage to or be fatal if swallowe	npour. hma symptoms or brancer. gans through prolong ed and enters airways	ged or repeated	

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Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements Labelling according to Regulation EC No 1272/2008 CLP: The product is classified and labelled according to the CLP regulation. Hazard pictograms:



Signal word: Danger

Hazard-determining components of labelling:

Reaction mass of ethylbenzene and m-xylene and p-xylene

diphenylmethane diisocyanate, isomeres and homologues

maleic anhydride

m-tolylidene diisocyanate

Addition reaction products of conjugated sunflower-oil fatty acids and tall-oil fatty acids with maleic anhydride

Hazard statements:

H226 Flammable liquid and vapour.

H332 Harmful if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H304 May be fatal if swallowed and enters airways.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331	Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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P308+P313	IF exposed or concerned: Get medical advice/attention.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
Additional inf	ormation:
EUH204 Conta	ins isocyanates. May produce an allergic reaction.
2.3 Other haza	ards
Results of PB'	f and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Ingredients according Regulation	(EU) 2020/878:	
EC number: 905-562-9 Reg.nr.: 01-2119488216-32-XXXX	Reaction mass of ethylbenzene and m-xylene and p- xylene Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335; Aquatic Chronic 3, H412	25-50%
CAS: 9016-87-9	diphenylmethane diisocyanate, isomeres and homologues Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204 Specific concentration limits: Eye Irrit. 2; H319: $C \ge 5 \%$ Skin Irrit. 2; H315: $C \ge 5 \%$ Resp. Sens. 1; H334: $C \ge 0.1 \%$ STOT SE 3; H335: $C \ge 5 \%$	10-25%
CAS: 108-65-6 EINECS: 203-603-9 Index number: 607-195-00-7 Reg.nr.: 01-2119475791-29-XXXX	2-methoxy-1-methylethyl acetate Flam. Liq. 3, H226	10-25%
CAS: 26471-62-5 EINECS: 247-722-4 Index number: 615-006-00-4 Reg.nr.: 01-2119454791-34-XXXX	 m-tolylidene diisocyanate Acute Tox. 2, H330; Resp. Sens. 1, H334; Carc. 2, H351; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335; Aquatic Chronic 3, H412, EUH204 Specific concentration limit: Resp. Sens. 1; H334; C ≥ 0.1 % 	≥0.1-<1%

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EC number: 701-043-4 Reg.nr.: 01-2119976378-19-XXXX	Addition reaction products of conjugated sunflower-oil fatty acids and tall-oil fatty acids with maleic anhydride Skin Irrit. 2, H315; Skin Sens. 1, H317	≥0.1-<1%
CAS: 108-31-6 EINECS: 203-571-6 Index number: 607-096-00-9 Reg.nr.: 01-2119472428-31-XXXX	maleic anhydride	≥0.001-<0.1%

	ECTION 4: First aid measures .1 Description of first aid measures
	General information:
	Medical observation is required for at least 48 hours after the accident since symptoms of poisoning may no
	show up for several hours.
	Ensure the first aider's personal safety.
	Allow affected people to get some fresh air.
	Request medical help immediately
	After inhalation:
1	f the patient becomes unconscious, secure him in a side position for transportation.
	Get fresh air & call a doctor immediately.
	f symptoms last, see a doctor.
	After skin contact:
1	Wash with soap and water immediately, then thoroughly rinse.
	Seek emergency medical attention.
	Take off any contaminated clothing.
1	After eye contact:
1	Rinse the opened eye under flowing water for 15 minutes.
-	Safeguard uninjured eye.
(Consult a doctor if the symptoms continue.
	After swallowing:
	Do not force yourself to vomit; instead, contact emergency help right away.
	Ensure you are getting lots of fresh air and drink. Make a doctor's appointment immediately.
5	eek emergency medical attention.
	.2 Most important symptoms and effects, both acute and delayed
	No further relevant information available.
	I.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.
1	No further relevant information available.
-	
S	ECTION 5: Firefighting measures
4	5.1 Extinguishing media

5.1 Extinguishing media
Suitable extinguishing agents: CO2, powder or water spray. Use foam to put out major fires.
For safety reasons unsuitable extinguishing agents: Water with full jet
5.2 Special hazards arising from the substance or mixture No further relevant information available.
5.3 Advice for firefighters
Protective equipment:
Mouth respiratory protective device.

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Wear protective equipment.

Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Put on safety gear.

Avoid breathing in fumes.

Stay away from sources of ignition.

Avoid skin, eye and clothing contact.

6.1.1 For non-emergency personnel Make sure there is enough air circulation.

6.1.2 For emergency responders

Wear safety gear when necessary. Keep vulnerable people at a distance.

Protective gear, gloves, goggles, and a breathing device with a type A filter are required for first-aid rescuers. **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Utilize absorbent material to collect (sand, diatomite).

Make sure there is enough airflow.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling Make sure there is adequate exhaustion and ventilation at work. **Information about fire - and explosion protection:**



Avoid smoking and keep all combustible materials away.

Safeguard against electrostatic charges. Store away from heat, fires, ignition, and direct sunlight.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

Retain in a cold environment.

Store far from combustible materials

Receptacles should be ventilated.

Further information about storage conditions: Preserve the container tightly locked.

7.3 Specific end use(s) No further relevant information available.

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Ingredients with lin	nit values that require monitoring at the workplace:		
	henylmethane diisocyanate, isomeres and homologues		
	Short-term value: 0.07 mg/m ³		
WEE (Great Distail)	Long-term value: 0.02 mg/m ³		
	Sen; as -NCO		
CAS: 108-65-6 2-m	thoxy-1-methylethyl acetate		
WEL (Great Britain)	Short-term value: 548 mg/m ³ , 100 ppm		
	Long-term value: 274 mg/m ³ , 50 ppm		
	Sk		
IOELV (EU)	Short-term value: 550 mg/m ³ , 100 ppm		
Contractor Associate	Long-term value: 275 mg/m ³ , 50 ppm		
	Skin		
CAS: 26471-62-5 m	-tolylidene diisocyanate		
WEL (Great Britain)	Short-term value: 0.07 mg/m ³		
	Long-term value: 0.02 mg/m ³		
and the second	Sen; as -NCO		
CAS: 108-31-6 maleic anhydride			
WEL (Great Britain)	Short-term value: 3 mg/m ³		
	There takes in large 1 and lock		
	Long-term value: 1 mg/m ³		
DNELs	Sen		
ETHYLBENZOLE I DNEL Workers: Inhalation - Intensive Inhalation - Chronic Skin - Chronic system DNEL Consumers: Mouth - Chronic syst Inhalation - Intensive Inhalation - Chronic	Sen REACTION MIXTURE, m-Xylol and p-Xylol. e systemic effect = 289 mg / m 3 systemic effect = 77 mg / m 3 nic effect = 180 mg / kg temic effect = 1.6 mg / kg e systemic effect = 174 mg / m 3 systemic effect = 14.8 mg / m 3		
ETHYLBENZOLE I DNEL Workers: Inhalation - Intensive Inhalation - Chronic Skin - Chronic system DNEL Consumers: Mouth - Chronic syst Inhalation - Intensive Inhalation - Chronic Skin - Chronic system PNECs	Sen REACTION MIXTURE, m-Xylol and p-Xylol. a systemic effect = 289 mg / m 3 systemic effect = 77 mg / m 3 nic effect = 180 mg / kg temic effect = 1.6 mg / kg a systemic effect = 174 mg / m 3 systemic effect = 108 mg / m 3 nic effect = 108 mg / kg		
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ETHYLBENZOLE I DNEL Workers: Inhalation - Intensive Inhalation - Chronic Skin - Chronic system DNEL Consumers: Mouth - Chronic system Inhalation - Intensive Inhalation - Chronic Skin - Chronic system PNECs ETHYLBENZOLE I PNEC: in fresh water 0.327 in marine water 0.327	Sen REACTION MIXTURE, m-Xylol and p-Xylol. e systemic effect = 289 mg / m 3 systemic effect = 77 mg / m 3 nic effect = 180 mg / kg e systemic effect = 1.6 mg / kg e systemic effect = 174 mg / m 3 systemic effect = 14.8 mg / m 3 nic effect = 108 mg / kg REACTION MIXTURE, m-Xylol and p-Xylol. mg / 1 7 mg / 1		
ETHYLBENZOLE I DNEL Workers: Inhalation - Intensive Inhalation - Chronic Skin - Chronic system DNEL Consumers: Mouth - Chronic system Inhalation - Intensive Inhalation - Intensive Inhalation - Chronic Skin - Chronic system PNECs ETHYLBENZOLE I PNEC: in fresh water 0.327 in marine water 0.327 for sediment in fresh	Sen REACTION MIXTURE, m-Xylol and p-Xylol. e systemic effect = 289 mg / m 3 systemic effect = 77 mg / m 3 nic effect = 180 mg / kg e systemic effect = 1.6 mg / kg e systemic effect = 174 mg / m 3 systemic effect = 14.8 mg / m 3 nic effect = 108 mg / kg REACTION MIXTURE, m-Xylol and p-Xylol. mg / 1 7 mg / 1 water 12,46 mg / kg		
ETHYLBENZOLE I DNEL Workers: Inhalation - Intensive Inhalation - Chronic Skin - Chronic system DNEL Consumers: Mouth - Chronic system Inhalation - Intensive Inhalation - Intensive Inhalation - Chronic Skin - Chronic system PNECs ETHYLBENZOLE I PNEC: in fresh water 0.327 in marine water 0.327 for sediment in fresh for sediment in marine	Sen REACTION MIXTURE, m-Xylol and p-Xylol. e systemic effect = 289 mg / m 3 systemic effect = 77 mg / m 3 nic effect = 180 mg / kg temic effect = 1.6 mg / kg e systemic effect = 174 mg / m 3 systemic effect = 14.8 mg / m 3 nic effect = 108 mg / kg REACTION MIXTURE, m-Xylol and p-Xylol. mg / 1 7 mg / 1 water 12,46 mg / kg herewater 12,46 mg / kg		
ETHYLBENZOLE I DNEL Workers: Inhalation - Intensive Inhalation - Chronic Skin - Chronic system DNEL Consumers: Mouth - Chronic system Inhalation - Intensive Inhalation - Intensive Inhalation - Chronic Skin - Chronic system PNECs ETHYLBENZOLE I PNEC: in fresh water 0.327 in marine water 0.327 for sediment in fresh for sediment in marin for water, intermitter	Sen REACTION MIXTURE, m-Xylol and p-Xylol. r systemic effect = 289 mg / m 3 systemic effect = 77 mg / m 3 nic effect = 180 mg / kg remic effect = 1.6 mg / kg r systemic effect = 174 mg / m 3 systemic effect = 174 mg / m 3 nic effect = 108 mg / kg REACTION MIXTURE, m-Xylol and p-Xylol. mg / 1 7 mg / 1 water 12,46 mg / kg newater 12,46 mg / kg there are a systemic and a systemic an		
ETHYLBENZOLE I DNEL Workers: Inhalation - Intensive Inhalation - Chronic Skin - Chronic system DNEL Consumers: Mouth - Chronic system Inhalation - Intensive Inhalation - Intensive Inhalation - Chronic Skin - Chronic system PNECs ETHYLBENZOLE I PNEC: in fresh water 0.327 in marine water 0.327 for sediment in fresh for sediment in marine	Sen REACTION MIXTURE, m-Xylol and p-Xylol. e systemic effect = 289 mg / m 3 systemic effect = 77 mg / m 3 nic effect = 180 mg / kg temic effect = 1.6 mg / kg e systemic effect = 174 mg / m 3 systemic effect = 14.8 mg / m 3 nic effect = 108 mg / kg REACTION MIXTURE, m-Xylol and p-Xylol. mg / 1 7 mg / 1 water 12,46 mg / kg newater 12,46 mg / kg there are a systemic effect = 12,46 mg / kg there a systemic effe		

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8.2 Exposure controls

Individual protection measures, such as personal protective equipment General protective and hygienic measures:

Avoid food, drink and feed.

Before breaks and after work, wash your hands.

Avoid eating, drinking and smoking while using the product.

Protective clothes should be stored seperately.

Keep your hands away from your skin and eyes.

Respiratory protection:



In cases of inadequate ventilation, use an appropriate respiratory protection gear. Respiratory protection is necessary while spraying and in poorly ventilated work spaces. For brief durations of labor, a charcoal filter and particle filter A2-P2 (EN529) combination mask or an air-fed mask are advised.

Hand protection



Protective gloves resistant to chemicals (standard EN 374-1)

The material used for the gloves must be waterproof and resistant to the product, substance, or preparation. No advice for the glove material for the product, preparation, or chemical mixture can be made due to a lack of studies.

Choose the glove material while taking the degradation, diffusion, and penetration rates into account

Material of gloves

Hand protection when handling the product at room temperature:

Butyl rubber - IIR: thickness ≥0,5mm; breakthrough time ≥480min.

Fluorinated rubber - FKM: thickness ≥0,4mm; breakthrough time ≥480min.

Recommendation: contaminated gloves should be disposed of.

The selection of appropriate gloves is dependent not only on the materials, but also on additional quality indicators, and differs from manufacturer to manufacturer. The resilience of the glove material must thus be tested before use because the product is a blend of numerous components and cannot be predicted in advance.

Penetration time of glove material

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended. **Eye/face protection**



Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:



Chemically resistant, protective work clothing (EN 14605) and boots.

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9.1 Information on basic physical and chemical p	roperties
General Information	
Physical state	Liquid
Colour:	transparent/yellowish
Odour:	Characteristic
Odour threshold:	Not determined
Melting point/freezing point: Boiling point or initial boiling point and boiling	Not determined
range	130 °C
Flammability	Not applicable
Lower and upper explosion limit	
Lower:	0.8 Vol %
Upper:	10.8 Vol %
Flash point:	27-32 °C (Reaction mass of ethylbenzene and m-xyle
The second s	and p-xylene)
Auto-ignition temperature:	Product is not selfigniting.
Decomposition temperature:	Not determined
Viscosity:	and the second
Kinematic viscosity	Not determined
Kinematic viscosity	
Dynamic at 20 °C:	<40 mPas
Solubility	
water:	Not miscible
Partition coefficient n-octanol/water (log value)	Not determined
Vapour pressure:	Not determined
Density and/or relative density	. ist determined
Density at 20 °C:	1 g/cm ³
Relative density	Not determined
Vapour density	Not determined
9.2 Other information	VOC(g/l): 498
Appearance:	1 10 - 1 - 1 - 1
Form:	Liquid
Important information on protection of health an	
environment, and on safety.	
Auto-ignition temperature:	488 °C
Explosive properties:	Product is not explosive. However, formation of
Expressive properties.	explosive air/vapour mixtures are possible.
Solvent content:	expressive any vapour mixtures are possible.
VOC (EC)	498 g/l
Cloud point / clarification point:	490 gr
Oxidising properties	Not considered as oxidising.
Evaporation rate	Not determined
Information with regard to physical hazard class	
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void

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Gases under pressure	Void	
Flammable liquids		
Flammable liquid and vapour.		
Flammable solids	Void	
Self-reactive substances and mixtures	Void	
Pyrophoric liquids	Void	
Pyrophoric solids	Void	
Self-heating substances and mixtures	Void	
Substances and mixtures, which emit flamm	able	
gases in contact with water	Void	
Oxidising liquids	Void	
Oxidising solids	Void	
Organic peroxides	Void	
Corrosive to metals	Void	
Desensitised explosives	Void	

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.

10.2 Chemical stability

*

Thermal decomposition / conditions to be avoided Stable at environment temperature.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid Avoid heat, sparkles, naked flame or other sources of ignition.

10.5 Incompatible materials No further relevant information available.

10.6 Hazardous decomposition products No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 Acute toxicity Harmful if inhaled.

LD/LC50 values relevant for classification:

Inhalative ATEmix (vapours) 17.7 mg/l (rat)

Oral	LD50	4,300 mg/kg (rat)	
Inhalative	LC50 (4h)	5,000 ppm (rat)	
	1	5,000 ppm (rabbit)	
CAS: 901	6-87-9 diphenylme	hane diisocyanate, isomeres and homologues	
Oral	LD50	>10,000 mg/kg (rat)	
Dermal	LD50	>10,000 mg/kg (rabbit)	
Inhalative	LC50/4 h (vapour)	0.493 mg/l (rat) (OECD 401)	
		0.493 mg/l (rabbit)	
CAS: 108	3-65-6 2-methoxy-1-	methylethyl acetate	
Oral	LD50	>5,000 mg/kg (rat)	
Dermal	LD50	>5,000 mg/kg (rat)	
			(Contd. on page 1

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Tabalatter	T CED (ALL)	(Contd. of page
	LC50 (4h)	1,805.05 ppm (rat)
		nixture of isomers
Oral	LD50	4,300 mg/kg (rat)
Dermal	LD50	1,700 mg/kg (rabbit)
	LC50 (4h)	5,000 ppm (rat)
CAS: 264	71-62-5 m-tolyl	idene diisocyanate
Oral	LD50	4,130 mg/kg (rat)
Dermal	LD50	>9,400 mg/kg (rabbit)
CAS: 108	-31-6 maleic an	hydride
Oral	LD50	400 mg/kg (rat)
Dermal	LD50	2,620 mg/kg (rabbit)
Germ cell Carcinoge Carcinoge Cancer-cau Reproduc STOT-sim The produc May cause STOT-rep STOT Rep May cause Aspiratio The produc May be fa Additiona Sensitisat CMR effe	enicity n, Category 2 using agent suspec- tive toxicity Ba- agle exposure let is classified a e respiratory irrit peated exposure be damage to organ hazard let is classified A tal if swallowed al toxicological if ion Sensitization ects (carcinogen	Based on available data, the classification criteria are not met. cted sed on available data, the classification criteria are not met. s Specific Target Organ Toxicity after single exposure Category 3 tation. Category 2 ins through prolonged or repeated exposure. Aspiration toxicity Category 1 and enters airways. information: n possible through skin contact ity, mutagenicity and toxicity for reproduction)
CAS: 108	-65-6 2-methox	y-1-methylethyl acetate
NOEC (28	3d) 1.659 mg/l (crustacean)
Carc. 2 11.2 Infor	mation on othe	r hazards
Endocrin	e disrupting pro	operties

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12.1 Toxicity			
Aquatic toxi	city:		
CAS: 108-65-6 2-methoxy-1-methylethyl acetate			
EC50 (48h)	8.8 mg/l (crustacean)		
LC50 (96h)	6.83 mg/l (fis)		
CAS: 1330-2	0-7 Xylene mixture of isomers		
EC50 (48h)	>7.4 mg/l (daphnia magna)		
LC50 (96h)	2.6 mg/l (fis)		
NOEC r (72h) 440 mg/l (algae)		
CAS: 26471-62-5 m-tolylidene diisocyanate			
EC50 (48h)	12.5 mg/l (daphnia magna)		
LC50 (96h)	133 mg/l (Oncorhynchus mykiss)		
12.3 Bioaccu 12.4 Mobility 12.5 Results PBT: Not ap vPvB: Not ap 12.6 Endocri 12.7 Other a Remark: Ha Additional e General note	pplicable. ne disrupting properties For information on endocrine disrupting properties see section 11. dverse effects mful to fish cological information:		

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation



Dispose according to National Regulations.



Not to be disposed of with regular trash. Do not let product enter the drainage system.

Contact manufacturer for recycling information.

Uncleaned packaging:

Recommendation:

Official guidelines must be followed while disposing of materials.

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LAVA 20 QUICK PRIMER Page 12/14 Safety Data Sheet According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878 Printing date 12.10.2021 Version number 5 (replaces version 4) Revision: 12.10.2021 Trade name: LAVA 20 QUICK PRIMER (Contd. of page 11) After cleaning, packaging can be recycled or used again. **SECTION 14: Transport information** 14.1 UN number or ID number ADR, IMDG, IATA UN1866 14.2 UN proper shipping name 1866 RESIN SOLUTION ADR IMDG, IATA **RESIN SOLUTION** 14.3 Transport hazard class(es) ADR, IMDG, IATA Class 3 Flammable liquids. Label 3 14.4 Packing group ADR, IMDG, IATA Ш 14.5 Environmental hazards: Marine pollutant: No 14.6 Special precautions for user Warning: Flammable liquids. Hazard identification number (Kemler code): 30 **EMS Number:** F-E,S-E Stowage Category A 14.7 Maritime transport in bulk according to IMO Not applicable. instruments **Transport/Additional information:** ADR Limited quantities (LQ) 5L **Excepted quantities (EQ)** Code: E1 Maximum net quantity per inner packaging: 30 ml

Transport category Tunnel restriction code

IMDG Limited quantities (LQ) Excepted quantities (EQ) Maximum net quantity per outer packaging: 1000 ml 3 D/E 5L

Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

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UN "Model Regulation":

UN 1866 RESIN SOLUTION, 3, III

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 94/62/EC on packaging and packaging waste. REACH Regulation 1907/2006/EC

Regulation (EU) 2020/878

CLP Regulation 1272/2008/EC

Directive 98/24/EC on safeguarding employees' health and safety against hazards posed by chemical agents at work.

Youth protection at work: amended version of Council Directive 94/33/EC.

The amended version of Directive 92/85/EEC on the adoption of measures to promote advancements in the safety and health at work of pregnant employees, new mothers, and nursing employees

Directive 2012/18/EU

Named dangerous substances - ANNEX I Substance is not listed.

Seveso category P5c FLAMMABLE LIQUIDS

Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000 t Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000 t REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 74

National regulations:

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57

It doesn't contain substances of very high concern (SVHC).

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on what we know right now. This, however, does not create a legally binding business relationship or a guarantee for any particular product characteristics.

Relevant phrases

- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H330 Fatal if inhaled.
- H332 Harmful if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 May cause respiratory irritation.
- H351 Suspected of causing cancer.
- H372 Causes damage to organs through prolonged or repeated exposure.

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Printing date 12.10.2021 Version number 5 (replaces version 4) Revision: 12.10.2021 Trade name: LAVA 20 QUICK PRIMER (Contd. of page 13) H373 May cause damage to organs through prolonged or repeated exposure. H412 Harmful to aquatic life with long lasting effects. EUH204 Contains isocyanates. May produce an allergic reaction. Department issuing SDS: **OWL WATERPROOFING SOLUTIONS** 135 Slaney Road, Dublin Industrial Estate Glasnevin, Dublin 11 Tel: +353 01 830 2250 Email: info@owlwaterproofing.co.uk Website: www.owlwaterproofing.co.uk Version number of previous version: 4 Abbreviations and acronyms: ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) VOC: Volatile Organic Compounds (USA, EU) DNEL: Derived No-Effect Level (REACH) PNEC: Predicted No-Effect Concentration (REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic SVHC: Substances of Very High Concern vPvB: very Persistent and very Bioaccumulative Flam. Liq. 3: Flammable liquids - Category 3 Acute Tox. 4: Acute toxicity - Category 4 Acute Tox. 2: Acute toxicity - Category 2 Skin Corr. 1B: Skin corrosion/irritation - Category 1B Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Irrit. 2: Serious eye damage/eye irritation - Category 2 Resp. Sens. 1: Respiratory sensitisation - Category 1 Skin Sens. I: Skin sensitisation - Category 1 Carc. 2: Carcinogenicity - Category 2 STOT SE 3: Specific target organ toxicity (single exposure) - Category 3 STOT RE 1: Specific target organ toxicity (repeated exposure) - Category | STOT RE 2: Specific target organ toxicity (repeated exposure) - Category 2 Asp. Tox. 1: Aspiration hazard - Category 1 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3 * Data compared to the previous version altered.



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Printing date 12.10.2021 Version number 5 (replaces version 4) Revision: 12.10.2021 SECTION 1: Identification of the substance/mixture and of the company /undertaking 1.1 Product identifier Trade name: LAVA 20 SUPER QUICK PRIMER 1.2 Relevant identified uses of the substance or mixture and uses advised against Professional use Application of the substance / the mixture: Polyisocyanate hardener 1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier: **OWL WATERPROOFING SOLUTIONS** 135 Slaney Road, Dublin Industrial Estate Glasnevin, Dublin 11 Tel: +353 01 830 2250 Email: info@owlwaterproofing.co.uk Website: www.owlwaterproofing.co.uk 1.4 Emergency telephone number: European Emergency Tel.: +353 01 830 2250 **SECTION 2: Hazards identification** 2.1 Classification of the substance or mixture Classification according to Regulation EC No 1272/2008 CLP: GHS02 flame Flam. Liq. 2 H225 Flammable liquid and vapour. GHS08 health hazard Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. Repr. Tox. 2 H316d Suspected of damaging the unborn child. STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure. Asp. Tox. 1 H304 May be fatal if swallowed and enters airways. GHS07 Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2 H319 Causes serious eye irritation. Skin Sens. 1 H317 May cause an allergic skin reaction. STOT SE 3 H336 May cause drowsiness or dizziness. (Contd. on page 2)

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2.2 Label elements Labelling according to Regulation EC No 1272/2008 CLP: The product is classified and labelled according to the CLP regulation. Hazard pictograms:



Signal word: Danger

Hazard-determining components of labelling:

Reaction mass of ethylbenzene and m-xylene and p-xylene diphenylmethane diisocyanate, isomeres and homologues

maleic anhydride

m-tolylidene diisocyanate

Addition reaction products of conjugated sunflower-oil fatty acids and tall-oil fatty acids with maleic anhydride

Hazard statements:

H361d Suspected of damaging the unborn child.

EUH208 Contains: TOLUENE-2,4-DI-ISOCYANATE. May produce an allergic reaction.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

EUH204 Contains isocyanates. May produce an allergic reaction.

H373 May cause damage to organs through prolonged or repeated exposure.

H304 May be fatal if swallowed and enters airways.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 Avoid breathing dust / fume / gas / mist / vapours / spray.P280Wear protective gloves / clothing and eye / face protection.

P301+P310 IF SWALLOWED: immediately call a POISON CENTER / doctor / ...

P331 Do NOT induce vomiting.

P342+P311 If experiencing respiratory symptoms: call a POISON CENTER / doctor / . .

Contains:TOLUENEPOLYOXY(METHYL-1,2-ETHANEDIYL), .ALPHA.-HYDRO-.OMEGA.-HYDROXY-, POLYMER WITH2,4-DIISOCYANATO-1-METHYLBENZENETOLUENE-2,4-DI-ISOCYANATEETHYL ACETATE

VOC (Directive 2004/42/EC) :

Binding primers.VOC given in g/litre of product in a ready-to-use condition : 661,05 Limit value: 750,00

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2.3 Other hazards Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable.

Ingredients according Regu	llation (EU) 2020/878:	
CAS EC 203-625-9 INDEX 601-021-00-3	TOLUENE Flam. Liq. 2 H225, Repr. 2 H361d, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H336	$35 \le x \le 37,5$
CAS 37273-56-6 EC 609-378-7 INDEX	POLYOXY(METHYL-1,2-ETHANEDIYL), ALPHAHYDROOMEGAHYDROXY-, POLYMER WITH 2,4-DIISOCYANATO-1-METHYLBENZENE Acute Tox. 4 H332, Eye Irrit. 2 H319, Resp. Sens. 1 H334, Skin Sens. 1 H317	$28,5 \le x \le 30$
CAS 1330-20-7 EC 215-535-7 INDEX 601-022-00-9	XYLENE (MIXTURE OF ISOMERS) Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Irrit. 2 H315, Note C	$10 \le x \le 11,5$
CAS 108-65-6 EC 203-603-9 INDEX 607-195-00-7	2-METHOXY-1-METHYLETHYL ACETATE Flam. Liq. 3 H226	9≤x<10,5

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Hude hande. EAVA 20 SOTT	ek gölek i kiniek	
CAS 141-78-6 EC 205-500-4 INDEX 607-022-00-5	ETHYLACETATE Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066	$10 \le x \le 11.5$
CAS 110-19-0 EC 203-745-1 INDEX 607-026-00-7	ISOBUTYL ACETATE Flam. Liq. 2 H225, EUH066, Note C	$4 \le x \le 4,5$
CAS 91-08-7 EC 202-039-0 INDEX 615-006-00-4	TOLUENE-2,4-DI-ISOCYANATE Carc. 2 H351, Acute Tox. 2 H330, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Resp. Sens. 1 H334, Skin Sens. 1 H317,	$0,25 \le x < 0,3$

Aquatic Chronic 3 H412, Note 2 C

SECTION 4: First aid measures

4.1 Description of first aid measures

After inhalation:

Remove to open air.

If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

After skin contact:

Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

After eye contact:

Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

After swallowing:

Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by adoctor.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray canbe used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT: Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to preventexplosions.

5.2 Special hazards arising from the substance or mixture HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE. Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products. (Contd. on page 5)

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5.3. Advice for firefighters: Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous forhealth. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS: Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination withself-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Block the leakage if there is no hazard. Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

These indications apply for both processing staff and those involved in emergency procedures. Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakagesite.

6.2. Environmental precautions: The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up: Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point13.

6.4. Reference to other sections: Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Withoutadequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system andwear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers withcaution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities: Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a wellventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away fromany incompatible materials, see section 10 for details.

7.3 Specific end use(s) No further relevant information available.

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SECTION 8: Ex	posure controls/	personal protection
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8.1. Control parameters

Regulatory References:

*

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
FIN	Suomi	HTP-arvot 2012. Haitallisiksi tunnetut pitoisuudet - Sosiaali- ja terveysministeriön julkaisuja 2012:5
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81EUOEL EUDirective (EU) 2017/164; Directive
EU	OEL EU	2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC;Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

TOLUENE

Threshold Limit	Value					
Туре	Country	TWA/8h mg/m3	ppm	STEL/15 mg/m3	min ppm	
VLA	ESP	192	50	384	100	SKIN
HTP	FIN	81	25	380	100	SKIN
VLEP	FRA	76,8	20	384	100	SKIN
WEL	GBR	191	50	384	100	SKIN
VLEP	ITA	192	50			SKIN
OEL	EU	192	50	384	100	SKIN
TLV-ACGIH		75,4	20			

ETHYL ACETATE

Threshold Limit	Value			Torney 1		
Туре	Country	TWA/8h mg/m3	ppm	STEL/15 mg/m3	min ppm	
VLA	ESP	1460	400		44.	
HTP	FIN	1100	300	1800	500	
VLEP	FRA	1400	400			
WEL	GBR		200		400	
OEL	EU	734	200	1468	400	
TLV-ACGIH		1441	400			

2-METHOXY-1-METHYLETHYL ACETATET

Threshold Lin	nit Value					
Туре	Country	TWA/8h mg/m3	ppm	STEL/15 mg/m3	min ppm	
VLA	ESP	275	50	550	100	SKIN
HTP	FIN	270	50	550	100	SKIN
VLEP	FRA	275	50	550	100	SKIN
WEL	GBR	274	50	548	100	1 m 1 m 1
VLEP	ITA	275	50	550	100	SKIN
OEL	EU	275	50	550	100	SKIN

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Type	Country	TWA/8h		STEL/15	min		
	country	mg/m3	ppm	mg/m3	ppm		
VLA	ESP	221	50	442	100	SKIN	
HTP	FIN	220	50	440	100	SKIN	
VLEP	FRA	221	50	442	100	SKIN	
WEL	GBR	220	50	441	100	Contrast.	
VLEP	ITA	221	50	442	100	SKIN	
OEL	EU	221	50	442	100	SKIN	
TLV-ACGIH		434	100	651	150		
ISOBUTYL	ACETATE	1					
hreshold Limit		CONTRACTOR .	_	attend of			
Туре	Country	TWA/8h		STEL/15			
		mg/m3	ppm	mg/m3	ppm		
VLA	ESP	0,036	0,005	0,14	0,02		
WEL	GBR	0,02		0,07		and a	
TLV-ACGIH			0,001		0,003	SKIN	
.egend:							
TOLUENE-2	.,4-DI-ISO	CYANATE		_			
Threshold Limit	Value						
Туре	Country	TWA/8h		STEL/15	min		
		mg/m3	ppm	mg/m3	ppm		
VLA	ESP	0,036	0,005	0,14	0,02		
WEL	GBR	0,02	last on	0,07	S. Sie		
TLV-ACGIH			0,001		0,003	SKIN	
_egend:							

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice. Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station. Exposure levels must be kept as low as possible to avoid significant build-up in the organism.

Manage personal protective equipment so asto guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION: Protect hands with category III work gloves (see standard EN 374). The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability. The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time dependson the duration and type of use.

SKIN PROTECTION: Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Washbody with soap and water after removing protective clothing.Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

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EYE PROTECTION: Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION: If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with atype AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required. Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited. If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of anemergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathingapparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS: The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties General Information

Ceneral Information	T CARL	
Physical state	Liquid	
Colour:	Straw-coloured	
Odour:	Characteristic	
Odour threshold:	Not determined	
Melting point/freezing point:	Not determined	
Boiling point or initial boiling point and boiling range	Not determined	
Flammability	Not applicable	
Lower and upper explosion limit		
Lower:	Not determined	
Upper:	Not determined	
Flash point:	-4°C	
Auto-ignition temperature:	Product is not selfigniting.	
Decomposition temperature:	Not determined	
Viscosity:		
Kinematic viscosity	Not determined	
Kinematic viscosity		
Solubility	Reacts with water developing Car	bon Dioxide
water: Partition coefficient n-octanol/water (log value)	Not determined	
Vapour pressure:	Not determined	
Density and/or relative density	Hot determined	
Density at 20 °C:	0.94	
Relative density	Not determined	
Vapour density	Not determined	
9.2. Other information	1. A. C.	
Total solids (250°C / 482°F)	29,75%	(Contd. on page 9)

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10.1. Reactivity

Avoid overheating.

Version number 5 (replaces version 4)

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Frade name: LAV	A 20	SUPER	QUICK	PRIMER

(Contd. of page 8) VOC (Directive 2004/42/EC) : 70.25 % - 661.05g/litre VOC (volatile carbon) : 55,39 % - 521,24g/litre SECTION 10: Stability and reactivity There are no particular risks of reaction with other substances in normal conditions of use. TOLUENE: Avoid exposure to: light. ETHYL ACETATE: Decomposes slowly into acetic acid and ethanol under the effect of light, air and water. 2-METHOXY-1-METHYLETHYLACETATE: Stable in normal conditions of use and storage. With the air it may slowly develop peroxides that explode with an increase in temperature. ISOBUTYL ACETATE: Decomposes under the effect of heat. Attacks various types of plastic materials. TOLUENE-2,4-DI-ISOCYANATE: Polymerises developing heat on contact with: amines, strong bases. Reacts with hot water and alcohols, decomposing and releasing carbon dioxide. 10.2. Chemical stability The product is stable in normal conditions of use and storage. 10.3. Possibility of hazardous reactions The vapours may also form explosive mixtures with the air. TOLUENE: Risk of explosion on contact with: funning sulphuric acid, nitric acid, silver perchlorate, nitrogen dioxide,non-metal halogenates,aceticacid,organic nitrocompounds.May form explosive mixtures with: air. May react dangerously with: strong oxidising agents, strongacids, sulphur. ETHYL ACETATE: Risk of explosion on contact with: alkaline metals, hydrides, oleum. May react violently with: fluorine, strong oxidisingagents, explosion on contact with: fuming sulphuric acid, nitric acid, silver perchlorate,nitrogen dioxide,non-metal halogenates,aceticacid,organic nitrocompounds,May form explosive mixtures with: air. May react dangerously with: strong oxidising agents, strongacids, sulphur. 2-METHOXY-1-METHYLETHYLACETATE: May react violently with: oxidising substances.strong acids.alkaline metals. XYLENE (MIXTURE OF ISOMERS): Stable in normal conditions of use and storage. Reacts violently with: strong oxidants, strong acids, nitric acid, perchlorates. May form explosive mixtures with: air. **ISOBUTYL ACETATE:** Risk of explosion on contact with: strong oxidising agents. May react violently with: alkaline hydroxides, potassium tert-butoxide. Forms explosive mixtures with: air. TOLUENE-2,4-DI-ISOCYANATE: Polymerises developing heat on contact with: amines, strong bases. Reacts violently developing heat on contact with: acetylchloride,amines,bases,ethanol,methanol,oxidising substances, phenoles. Forms explosive mixtures with: hot air. 10.4. Conditions to avoid Avoid bunching of electrostatic charges. Avoid all sources of ignition. ETHYL ACETATE: Avoid exposure to: light, sources of heat, naked flames. ISOBUTYL ACETATE: Avoid exposure to: sources of heat, naked flames. TOLUENE-2,4-DI-ISOCYANATE: Avoid exposure to: sources of heat, naked flames. (Contd. on page 10)

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10.5. Incompatible materials

ETHYL ACETATE: Incompatible with: acids,bases,strong oxidants,aluminium,nitrates,chlorosulphuric acid.Incompatible materials: plastic materials.

2-METHOXY-1-METHYLETHYL ACETATE: Incompatible with: oxidising substances, strong acids, alkaline metals.

ISOBUTYL ACETATE: Incompatible with: strong oxidants,nitrates,strong acids,strong bases. **TOLUENE-2,4-DI-ISOCYANATE:** Incompatible with: water,acids,alkalis,amines,strong oxidants.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

TOLUENE-2,4-DI-ISOCYANATE: May develop: carbon oxides, hydrogen cyanide, nitrous gases.

SECTION 11: Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances itcontains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information:

2-METHOXY-1-METHYLETHYL ACETATEThe main route of entry is the skin, whereas the respiratory route is less important due to the low vapour pressure of the product.

Information on likely routes of exposure:

XYLENE (MIXTURE OF ISOMERS)

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; inhalation of ambient air.

2-METHOXY-1-METHYLETHYL ACETATE

WORKERS: inhalation; contact with the skin.

ETHYL ACETATE

Risk of explosion on contact with: alkaline metals, hydrides, oleum. May react violently with: fluorine, strong oxidising agents, chlorosulphuric acid, potassium tert-butoxide. Forms explosive mixtures with: air.

2-METHOXY-1-METHYLETHYL ACETATE

May react violently with: oxidising substances, strong acids, alkaline metals.

XYLENE (MIXTURE OF ISOMERS)

Stable in normal conditions of use and storage.Reacts violently with: strong oxidants,strong acids,nitric acid,perchlorates.May formexplosive mixtures with: air.

ISOBUTYL ACETATE

Risk of explosion on contact with: strong oxidising agents. May react violently with: alkaline hydroxides, potassium tert-butoxide. Formsexplosive mixtures with: air.

TOLUENE-2,4-DI-ISOCYANATE

Polymerises developing heat on contact with: amines, strong bases. Reacts violently developing heat on contact with: acetylchloride, amines, bases, ethanol, methanol, oxidising substances, phenoles. Forms explosive mixtures with: hot air.

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XYLENE (MIXTURE OF ISOMERS)

Intake of alcohol interferes with the metabolism of the substance, inhibiting it. Ethanol consumption (0.8 g/kg) before a 4-hourexposure to xylene vapours (145 and 280 ppm) causes a 50% reduction in the excretion of methyl hippuric acid, whereas the concentration of xylenes in the blood increases approx. 1.5-2 times. At the same time there is an increase in the secondary sideeffects of the ethanol. The metabolism of the xylenes is increased by phenobarbital and 3-methyl-colantrene type enzyme inducers. Aspirin and xylenes mutually inhibit their conjugation with the glycine, which results in a decrease in urinary excretion of methylhippuric acid. Other industrial products can interfere with the metabolism of xylenes.

TOLUENE

Certain drugs and other industrial products can interfere with the metabolism of the toluene.

ACUTE TOXICITY	
LC50 (Inhalation) of the mixture; LD50 (Oral) of the mixture: LD50 (Dermal) of the mixture:	> 20 mg/l Not classified (no significant component) >2000 mg/kg
XYLENE (MIXTURE OF ISOMERS) LD50 (Oral) LD50 (Dermal) LC50 (Inhalation)	3523 mg/kg Rat 4350 mg/kg Rabbit 26 mg/l/4h Rat
2-METHOXY-1-METHYLETHYL ACETATE LD50 (Oral) LD50 (Dermal)	8530 mg/kg Rat >5000 mg/kg Rat
TOLUENE LD50 (Oral) LD50 (Dermal) LC50 (Inhalation)	5580 mg/kg Rat 12124 mg/kg Rabbit 28.1 mg/l/4h Rat

SKIN CORROSION / IRRITATION: Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION: Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION: Sensitising for the skinSensitising for the respiratory system. May produce an allergic reaction.

Contains:

TOLUENE-2,4-DI-ISOCYANATE GERM CELL MUTAGENICITY: Does not meet the classification criteria for this hazard class

CARCINOGENICITY: Does not meet the classification criteria for this hazard class

XYLENE (MIXTURE OF ISOMERS): Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC). The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenicpotential".

TOLUENE: Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 1999). The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenicpotential".

REPRODUCTIVE TOXICITY: Suspected of damaging the unborn child

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STOT - SINGLE EXPOSURE: May cause drowsiness or dizziness STOT - REPEATED EXPOSURE: May cause damage to organs ASPIRATION HAZARD: Toxic for aspiration

SECTION 12: Ecological information

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil andwaterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all theproper measures to reduce harmful effects on aquifers.

12.1. Toxicity

Information not available

12.2. Persistence and degradability

XYLENE (MIXTURE OF ISOMERS) Solubility in water Biodegradability:	100 - 1000 mg/l Information not available	
2-METHOXY-1-METHYLETHYL ACETATE Solubility in water Rapidly biodegradable	> 10000 mg/1	
TOLUENE Solubility in water Rapidly biodegradable	100 - 1000 mg/l	
ETHYL ACETATE Solubility in water Rapidly biodegradable	> 10000 mg/I	
ISOBUTYLACETATE Solubility in water Rapidly biodegradable	1000 - 10000 mg/l	
XYLENE (MIXTURE OF ISOMERS) Partition coefficient: n-octanol/water BCF	3.12 25.9	1
2-METHOXY-1-METHYLETHYL ACETATE Partition coefficient: n-octanol/water	1,2	
TOLUENE Partition coefficient: n-octanol/water BCF	2,73 90	

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ETHYL ACETATE Partition coefficient: n-octanol/water BCF	0,68 30	
ISOBUTYL ACETATE Partition co efficient: n-octanol/water BCF	2,3 15,3	

12.4. Mobility in soil

XYLENE (MIXTURE OF ISOMERS)	2.73	
Partition coefficient: soil/water.	111111111111111	

12.5 Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13: Disposal consideration

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this productshould be evaluated according to applicable regulations. Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations. Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING: Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14: Transport information

14.1. UN number ADR / RID, IMDG, IATA: 1263

14.2. UN proper shipping name

ADR / RID: PAINT or PAINT RELATED MATERIAL IMDG: PAINT or PAINT RELATED MATERIAL IATA: PAINT or PAINT RELATED MATERIAL

14.3. Transport hazard class(es) ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3

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14.4. Packing group

ADR / RID, IMDG, IATA: II

The product, if packed in packages of less than 450 litres, can be assigned to P.G. III as provided for by 2.2.3.1.4 of the ADR.

The product, if packed in packages of less than 30 litres, can be assigned to P.G. III as provided for by 2.3.2.2 of the IMDG Code.

The product, if packed in packages of less than 30 litres, can be assigned to P.G. III as provided for by 3.3.3.1.1 of the DGR IATA.

14.5. Environmental hazards

ADR / RID: NO IMDG: NO IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 33 Special Provision: 640D	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:EMS:	F-E, S-E	Limited Quantities: 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 220 L Maximum quantity: 60 L A3, A72, A192	Packaging instructions: 366 Packaging instructions: 355

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code Information not relevant

SECTION 15: Regulatory iinformation

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006 Product Point: 3- 40

Contained Substance Point: 48 TOLUENE

Substances in Candidate List (Art. 59 REACH): On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH): None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012: None

Substances subject to the Rotterdam Convention: None

Substances subject to the Stockholm Convention: None

Healthcare controls: Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risksrelated to the workers' health and safety are modest and that the 98/24/EC directive is respected.

VOC (Directive 2004/42/EC): Binding primers.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains. (Contd. on page 15)

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SECTION 16: Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Carc. 2	Carcinogenicity, category 2
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit, 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Resp. Sens. 1	Respiratory sensitization, category 1
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H330	Fatal if inhaled.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.
	Repeated exposure may cause skin dryness or cracking.
EUH066 EUH204	Contains isocyanates. May produce an allergic reaction.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road

- CAS NUMBER: Chemical Abstract Service Number

- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%

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SECTION 16: Other information

- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

- 1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
- 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
- 3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
- 4. Regulation (EU) 2015/830 of the European Parliament
- 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
- 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
- 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
- 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
- 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- 10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
- 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
- The Merck Index. 10th Edition
- Handling Chemical Safety
- INRS Fiche Toxicologique (toxicological sheet)
- Patty Industrial Hygiene and Toxicology
- N.I. Sax Dangerous properties of Industrial Materials
- -7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals
- Ministry of Health and ISS (Istituto Superiore di Sanità) Italy

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Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify thesuitability and thoroughness of provided information according to each specific use of the product. This document must not be regarded as a guarantee on any specific product property. The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the currenthealth and safety laws and regulations. The producer is relieved from any liability arising from improper uses. Provide appointed staff with adequate training on how to use chemical products.



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and the second se	the second s	f the substance/mixture and of the company /underta	aking
1.1 Product ide	entifier		
Trade name: L	AVA 20		
		s of the substance or mixture and uses advised ag ce / the mixture: Polyurethane Waterproofing coatin	
1.3 Details of the	he supplier o	of the safety data sheet	
Manufacturer/			
OWL WATERP 135 Slaney Road			
Glasnevin, Dubli	n 11		
Tel: +353 01 830			
Email: info@owl Website: www.ov			
1.4 Emergency		÷	
0	0.00		
Europ	bean Emerger	ncy Tel.:+353 01 830 2250	
	e e		
SECTION 2: Ha		ostance or mixture	
		Regulation EC No 1272/2008 CLP:	
GHS0	2 flame		
	HOOLEL		
Flam. Liq. 3	H220 Fla	ammable liquid and vapour.	
GHS0	8 health haza	urd	
Resp. Sens. 1	H334 Mg	ay cause allergy or asthma symptoms or breathing di	fficulties if inhaled
STOT RE 2		ay cause damage to organs through prolonged or rep	
Asp. Tox. 1		ay be fatal if swallowed and enters airways.	cated exposure.
Пар, тол, т	11504 1410	be fata if swallowed and enters all ways.	
GHS0	7		
Skin Irrit, 2	H315 Ca	uses skin irritation.	
Eye Irrit. 2		uses serious eye irritation.	
Skin Sens. 1		ay cause an allergic skin reaction.	
Aquatic Chronie	c 3 H412 Ha	rmful to aquatic life with long lasting effects.	

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2.2 Label elements Labelling according to Regulation EC No 1272/2008 CLP: The product is classified and labelled according to the CLP regulation. Hazard pictograms:



Signal word: Danger

Hazard-determining components of labelling:

Reaction mass of ethylbenzene and m-xylene and p-xylene m-tolylidene diisocyanate 4,5-dichloro-2-octyl-2H-isothiazol-3-one

Hazard statements:

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H373 May cause damage to organs through prolonged or repeated exposure.

H304 May be fatal if swallowed and enters airways.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

I recutionary	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331	Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P3	338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
Additional inf	ormation:
EUH211 Warn	ing! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

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10 µm.

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vPvB: Not applicable.

Ingredients according Regulation	(EU) 2020/878:	
EC number: 905-562-9 Reg.nr.: 01-2119488216-32-XXXX	Reaction mass of ethylbenzene and m-xylene and p- xylene Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335; Aquatic Chronic 3, H412	≥15-<20%
CAS: 26471-62-5 EINECS: 247-722-4 Index number: 615-006-00-4 Reg.nr.: 01-2119454791-34-XXXX	 m-tolylidene diisocyanate Acute Tox. 2, H330; Resp. Sens. 1, H334; Carc. 2, H351; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335; Aquatic Chronic 3, H412, EUH204 Specific concentration limit: Resp. Sens. 1; H334; C ≥ 0.1 % 	0.1-<0.5%
CAS: 64359-81-5 EINECS: 264-843-8 Index number: 613-335-00-8	4,5-dichloro-2-octyl-2H-isothiazol-3-one	≥0.0025-<0.025%
CAS: 1317-65-3 EINECS: 215-279-6	limestone	≥30-<40%
CAS: 13463-67-7 EINECS: 236-675-5 Index number: 022-006-00-2 Reg.nr.: 01-2119489379-17-XXXX	titanium dioxide substance with a Community workplace exposure limit	≥2-<3%

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SECTION 4: First aid measures 4.1 Description of first aid measures General information: Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident. Take affected persons out into the fresh air. Seek immediate medical advice. After inhalation: If the patient becomes unconscious, secure him in a side position for transportation. Get fresh air. Provide artificial respiratory support if necessary. Keep the patient warm. If symptoms last, see a doctor. After skin contact: Wash with soap and water immediately, then thoroughly rinse. Talk to a doctor if skin irritation persists. After eye contact: Rinse the opened eve under flowing water for 15 minutes. Take off your contact lenses and keep rinsing for a few minutes. Avoid forceful water jets to prevent corneal injury; consult a doctor. After swallowing: Do not force yourself to vomit; instead, contact emergency help right away. Ensure you are getting lots of fresh air and drink. Make a doctor's appointment immediately. Seek emergency medical attention. 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available. 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available. **SECTION 5: Firefighting measures** 5.1 Extinguishing media Suitable extinguishing agents: CO2, powder or water spray. Use water spray to put out major fires. For safety reasons unsuitable extinguishing agents: Water with full jet 5.2 Special hazards arising from the substance or mixture Carbon dioxide (CO2) Carbon monoxide (CO) 5.3 Advice for firefighters Protective equipment: Self-contained breathing gear Full protective clothes are required. Additional information Separately collect contaminated fire-fighting water. It should not go down the sewage line.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Make sure there is enough air circulation. Stay away from sources of ignition.

(Contd. on page 5)

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

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Trade name: LAVA 20

(Contd. of page 4)

Wear safety gear when necessary. Keep vulnerable people at a distance.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Utilize absorbent material to collect (sand, diatomite).

Avoid using aqueous cleaning solutions or water to flush.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling & storage

7.1 Precautions for safe handling

Make sure the workspace has adequate exhaustion and ventilation.

Wear the appropriate personal protection equipment as necessary. See section 8 for more information on protective gear.

Do not breathe in vapors.

Avoid skin, eyes, and clothing contact.

Information about fire - and explosion protection:



Avoid smoking and keep all combustible materials away.

Safeguard against electrostatic charges.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

*

Requirements to be met by storerooms and receptacles:

Retain in a cold environment.

Store far from combustible materials Receptacles should be ventilated.

Further information about storage conditions:

Preserve the container tightly locked.

Safeguard against high temperatures and sunlight.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

CAS: 13463-67-7 titanium dioxide

WEL (Great Britain) Long-term value: 10* 4** mg/m³ *total inhalable **respirable

CAS: 26471-62-5 m-tolylidene diisocyanate

WEL (Great Britain) Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³ Sen; as -NCO

(Contd. on page 6)

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Printing date 12.10.2021 Version number 6 (replaces version 5) Revision: 12.10.2021 Trade name: LAVA 20 (Contd. of page 5) DNELS Reaction mass of ethylbenzene, m-xylene and p-xylene | EC: 905-562-9. Consumers: Long-term Systemic effect Oral: 1.6 mg/kg bw/d Long-term Systemic effect By inhalation: 14.8 mg/m3 Long-term Systemic effect Dermal: 108 mg/kg bw/d Workers: Long-term Systemic effect By inhalation: 77 mg/ml Long-term Systemic effect Dermal: 180 mg/kg bw/d Short-term Local effect By inhalation: 289 mg/ml Short-term Systemic effect By inhalation: 289 mg/m **PNECs** Reaction mass of ethylbenzene, m-xylene and p-xylene | EC: 905-562-9. Fresh water: 0.327 mg / 1 Marine water: 0.327 mg /1 Freshwater sediments: 12.46 mg / kg Marine water sediments: 12,46 mg / kg Soil: 2.31 mg / kg Sewage treatment plant: 6.58 mg / 1 Additional information: The lists valid during the making were used as basis. 8.2 Exposure controls

Individual protection measures, such as personal protective equipment General protective and hygienic measures:

Avoid food, drink, and feed. Prior to breaks and after work, wash your hands. Keep your hands away from your skin and eyes. Avoid eating, drinking, and smoking while using the product.

Avoid inhaling mists or vapors.

Respiratory protection:



In cases of inadequate ventilation, use an appropriate respiratory protection gear. Respiratory protection is necessary while spraying and in poorly ventilated work spaces. For brief durations of labor, a charcoal filter and particle filter A2-P2 (EN529) combination mask or an air-fed mask are advised.

Hand protection



Protective gloves resistant to chemicals (standard EN 374-1)

The material used for the gloves must be waterproof and resistant to the product, substance, or preparation. No advice for the glove material for the product, preparation, or chemical mixture can be made due to a lack of studies.

Choose the glove material while taking the degradation, diffusion, and penetration rates into account

Material of gloves

Hand protection when handling the product at room temperature: Butyl rubber - IIR: thickness ≥ 0.5 mm; breakthrough time ≥ 480 min. Fluorinated rubber - FKM: thickness ≥ 0.4 mm; breakthrough time ≥ 480 min. Recommendation: contaminated gloves should be disposed of.

(Contd. on page 7)

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

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Trade name: LAVA 20

The material used for the gloves must be waterproof and resistant to the product, substance, or preparation. No advice for the glove material for the product, preparation, or chemical mixture can be made due to a lack of studies. Choose the glove material while taking the degradation, diffusion, and penetration rates into account

Penetration time of glove material

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended. **Eye/face protection**



Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:



Chemically resistant, protective work clothing (EN 14605) and boots.

SECTION 9: Physical & chemical properties

General Information	
Physical state	Liquid
	Viscous liquid
Colour:	Various colours
Odour:	Characteristic
Odour threshold:	Not determined
Melting point/freezing point:	Not determined
Boiling point or initial boiling point and boiling	
range	130-150 °C (Reaction mass of ethylbenzene and m-
	xylene and p-xylene)
Flammability	Not applicable
Lower and upper explosion limit	and approximate
Lower:	0.8 Vol %
Upper:	Not determined
Flash point:	31 °C (Pensky-Martens)
Auto-ignition temperature:	Product is not selfigniting.
Decomposition temperature:	Not determined
pH	Not determined
Viscosity:	
Kinematic viscosity at 23 °C	398 s (ISO 2431/Flow time tISO)
Kinematic viscosity	
Dynamic:	Not determined
Solubility	The determined
water:	Not miscible
	Not determined
Partition coefficient n-octanol/water (log value)	Not determined
Vapour pressure:	Not determined

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Revision: 12.10.2021 Printing date 12.10.2021 Version number 6 (replaces version 5) Trade name: LAVA 20 (Contd. of page 7) Density and/or relative density Density at 20 °C: 1.39-1.41 g/cm3 **Relative density** Not determined Vapour density Not determined 9.2 Other information Appearance: Viscous liquid Form: Important information on protection of health and environment, and on safety. Auto-ignition temperature: 480 °C (xylene, Reaction mass of ethylbenzene and mxylene and p-xylene) Product is not explosive. However, formation of **Explosive properties:** explosive air/vapour mixtures are possible. Solvent separation test: <1 % (UN Part III, par. 32.5.1) Solvent content: VOC (EC) 249 g/l Cloud point / clarification point: Not oxidising **Oxidising properties Evaporation** rate Not determined Information with regard to physical hazard classes Void Explosives Flammable gases Void Void Aerosols **Oxidising gases** Void Gases under pressure Void Flammable liquids Flammable liquid and vapour. Flammable solids Void Self-reactive substances and mixtures Void **Pyrophoric liquids** Void **Pyrophoric solids** Void Self-heating substances and mixtures Void Substances and mixtures, which emit flammable Void gases in contact with water Void **Oxidising liquids Oxidising solids** Void **Organic** peroxides Void **Corrosive to metals** Void **Desensitised explosives** Void

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided Stable at environment temperature.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid Avoid heat, sparkles, naked flame or other sources of ignition.

10.5 Incompatible materials No further relevant information available.

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Trade name:	LAVA 20		-
10.6 Haza	rdous decomposition p	products Carbon monoxide and carbon dioxide	(Contd. of page 8
SECTION	11: Toxicological inform	nation	
11.1 Infor	mation on hazard clas	ses as defined in Regulation (EC) No 1272/2008 data, the classification criteria are not met.	
LD/LC50	values relevant for cla	ssification:	
Dermal	ATEmix	9,434 mg/kg	
Inhalative	ATEmix	35 mg/l	
Reaction	mass of ethylbenzene a	nd m-xylene and p-xylene	
Oral	LD50	4,300 mg/kg (rat)	
Le regel	LC50 (4h)	5,000 ppm (rat)	
	a see is soone	5,000 ppm (rabbit)	
CAS: 264	71-62-5 m-tolylidene d		
Oral	LD50	4,130 mg/kg (rat)	
Dermal	LD50	>9,400 mg/kg (rabbit)	
CAS: 643	59-81-5 4,5-dichloro-2-	octyl-2H-isothiazol-3-one	
Oral	LD50	567 mg/kg (ATE)	
Inhalative	LC50/4h (dusts and mi	sts) 0.16 mg/l (ATE)	
Serious ey Respirato Inhalation Might resu Germ cell Carcinoge Reproduc STOT-sin STOT-rep STOT Rep May cause Aspiration The produ May be fat Additiona Sensitisati	ry or skin sensitisation may result in symptoms of the in an allergic skin cond mutagenicity Based on enicity Based on availab tive toxicity Based on a gle exposure Based on peated exposure beated Exposure Categor damage to organs through the constitution of the sensitive tal if swallowed and ental it toxicological informa- tion Sensitization possib	auses serious eye irritation. of allergies, asthma, or breathing problems. lition. n available data, the classification criteria are not me ole data, the classification criteria are not met. available data, the classificat	
11.2 Infor	mation on other hazar	ds	
	e disrupting properties		

LAVA 20

(Contd. on page 10)

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According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

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Trade name: LAVA 20

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SECTION 12: Ecological information	
12.1 Toxicity	
Aquatic toxicity:	
CAS: 26471-62-5 m-tolylidene diisocyana	te
EC50 (48h) 12.5 mg/l (daphnia magna)	
LC50 (96h) 133 mg/l (Oncorhynchus mykis	ss)
12.7 Other adverse effects Remark: Harmful to fish Additional ecological information: General notes:	relevant information available. Formation available. information on endocrine disrupting properties see section 11.
13.1 Waste treatment methods Recommendation Dispose according to National Report	gulations.
Not to be disposed of with regular t	rash. Do not let product enter the drainage system.
Uncleaned packaging: Recommendation: Official guidelines must	
SECTION 14: Transport information	
14.1 UN number or ID number ADR, IMDG, IATA	UN1866
14.2 UN proper shipping name ADR	1866 RESIN SOLUTION
IMDG, IATA	RESIN SOLUTION

LAVA 20 Safety Data Sheet	Page 11/
According to Regulation (EC) No. 1907/2006 Amendment Regulation (EC) No.1272/2008 (C	
Printing date 12.10.2021 Version number	r 6 (replaces version 5) Revision: 12.10.20
Trade name: LAVA 20	
	(Contd. of page 1
14.3 Transport hazard class(es)	
ADR, IMDG, IATA	
Class	3 Flammable liquids.
Label	3
14.4 Packing group ADR, IMDG, IATA	ш
14.5 Environmental hazards: Marine pollutant:	No
14.6 Special precautions for user Hazard identification number (Kemler code): EMS Number:	Warning: Flammable liquids. 30 F-E,S-E
Stowage Category 14.7 Maritime transport in bulk according to I	A
instruments	Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ) Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
Transport category	3
Tunnel restriction code Remarks:	 D/E Viscous liquid par. 2.2.3.1.5., 2.2.3.1.5.2 ADR and par. 2.3.2.5 of the IMDG Code. Exception for packages: ≤ 5 liters. In accordance to paragraphs 2.2.3.1.5, 2.2.3.1.5.2 of ADR (road transport) and 2.3.2.5 of the IMDG Code (marine transport) for packaging ≤ 5 liters (L), are not subject to the ADR agreement and are not subject to the provisions for the marking, labelling and testing of packages (IMDG).
IMDG Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml
Remarks:	 Maximum net quantity per outer packaging: 1000 ml Viscous liquid par. 2.2.3.1.5., 2.2.3.1.5.2 ADR and par. 2.3.2.5 of the IMDG Code. Exception for packages: ≤ 5 liters. In accordance to paragraphs 2.2.3.1.5, 2.2.3.1.5.2 of

(Contd. on page 12)

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Printing date 12.10.2021 Version number 6 (replaces version 5) Revision: 12.10.2021 Trade name: LAVA 20 (Contd. of page 11) ADR (road transport) and 2.3.2.5 of the IMDG Code (marine transport) for packaging ≤ 5 liters (L), are not subject to the ADR agreement and are not subject to the provisions for the marking, labelling and testing of packages (IMDG). **UN "Model Regulation":** UN 1866 RESIN SOLUTION, 3, III **SECTION 15: Regulatory information** 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture REACH Regulation 1907/2006/EC Regulation (EU) 2020/878 CLP Regulation 1272/2008/EC Directive 94/62/EC on packaging and packaging waste. Directive 98/24/EC on safeguarding employees' health and safety against hazards posed by chemical agents at work. Youth protection at work: amended version of Council Directive 94/33/EC. The amended version of Directive 92/85/EEC on the adoption of measures to promote advancements in the safety and health at work of pregnant employees, new mothers, and nursing employees Directive 2012/18/EU Named dangerous substances - ANNEX I Substance is not listed. Seveso category P5c FLAMMABLE LIQUIDS Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000 t Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000 t REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 74 National regulations: Other regulations, limitations and prohibitive regulations Substances of very high concern (SVHC) according to REACH, Article 57

It doesn't contain substances of very high concern (SVHC).

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on what we know right now. This, however, does not create a legally binding business relationship or a guarantee for any particular product characteristics.

Relevant phrases

- Flammable liquid and vapour. H226
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.

(Contd. on page 13)

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Printing date 12.10.2021 Version number 6 (replaces version 5) Revision: 12.10.2021 Trade name: LAVA 20 (Contd. of page 12) H330 Fatal if inhaled. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H351 Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure. H373 H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects. EUH204 Contains isocyanates. May produce an allergic reaction. **Department issuing SDS: OWL WATERPROOFING SOLUTIONS** 135 Slaney Road, Dublin Industrial Estate Glasnevin, Dublin 11 Tel: +353 01 830 2250 Email: info@owlwaterproofing.co.uk Website: www.owlwaterproofing.co.uk Version number of previous version: 5 Abbreviations and acronyms: ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) VOC: Volatile Organic Compounds (USA, EU) DNEL: Derived No-Effect Level (REACH) PNEC: Predicted No-Effect Concentration (REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic SVHC: Substances of Very High Concern vPvB: very Persistent and very Bioaccumulative Flam. Liq. 3: Flammable liquids - Category 3 Acute Tox. 4: Acute toxicity - Category 4 Acute Tox. 2: Acute toxicity - Category 2 Skin Corr. 1: Skin corrosion/irritation - Category 1 Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Dam. 1: Serious eye damage/eye irritation - Category 1 Eye Irrit. 2: Serious eye damage/eye irritation - Category 2 Resp. Sens. 1: Respiratory sensitisation - Category 1 Skin Sens. 1: Skin sensitisation - Category 1 Skin Sens. 1A: Skin sensitisation - Category 1A Carc. 2: Carcinogenicity - Category 2 STOT SE 3: Specific target organ toxicity (single exposure) - Category 3 STOT RE 2: Specific target organ toxicity (repeated exposure) - Category 2 Asp. Tox. 1: Aspiration hazard - Category 1 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3

* Data compared to the previous version altered.



Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Version number 5 (replaces version 4) Printing date 04.10.2021 Revision: 04.10.2021 SECTION 1: Identification of the substance/mixture and of the company /undertaking 1.1 Product identifier **Trade name: LAVA 20 VERTICAL** 1.2 Relevant identified uses of the substance or mixture and uses advised against Professional use Application of the substance / the mixture: Polyurethane Waterproofing coating 1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier: **OWL WATERPROOFING SOLUTIONS** 135 Slaney Road, Dublin Industrial Estate Glasnevin, Dublin 11 Tel: +353 01 830 2250 Email: info@owlwaterproofing.co.uk Website: www.owlwaterproofing.co.uk 1.4 Emergency telephone number: European Emergency Tel.: +353 01 830 2250 **SECTION 2: Hazard identification** 2.1 Classification of the substance or mixture Classification according to Regulation EC No 1272/2008 CLP: GHS02 flame Flam. Liq. 3 H226 Flammable liquid and vapour. GHS08 health hazard Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure. GHS07 H315 Causes skin irritation. Skin Irrit. 2 Eye Irrit. 2 H319 Causes serious eye irritation. Skin Sens. 1 H317 May cause an allergic skin reaction. Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects. 2.2 Label elements Labelling according to Regulation EC No 1272/2008 CLP: The product is classified and labelled according to the CLP regulation.

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LAVA 20 VERTICAL Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Trade name: LAVA 20 VERTICAL (Contd. of page 1) Hazard pictograms: GHS02 GHS08 Signal word: Danger Hazard-determining components of labelling: Reaction mass of ethylbenzene and m-xylene and p-xylene m-tolylidene diisocyanate 4,5-dichloro-2-octyl-2H-isothiazol-3-one Hazard statements: H226 Flammable liquid and vapour. H315 Causes skin irritation. H319 Causes serious eye irritation. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H317 May cause an allergic skin reaction. H373 May cause damage to organs through prolonged or repeated exposure. H412 Harmful to aquatic life with long lasting effects. **Precautionary statements** P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. P261 P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P331 Do NOT induce vomiting. IF ON SKIN: Wash with plenty of water and soap. P302+P352 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container in accordance with local/regional/national/international regulations. Additional information: EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist, 2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

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Revision: 04.10.2021

Version number 5 (replaces version 4)

Printing date 04.10.2021

LAVA 20 VERTICAL Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Printing date 04.10.2021

(Contd. of page 2)

Revision: 04.10.2021

SECTION 3: Composition/information on ingredients 3.2 Mixtures Description: Mixture: consisting of the following components. Ingredients according Regulation (EU) 2020/878: EC number: 905-562-9 Reaction mass of ethylbenzene and m-xylene and p-≥10-<25% Reg.nr.: 01-2119488216-32-XXXX xylene Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335; Aquatic Chronic 3, H412 CAS: 26471-62-5 m-tolylidene diisocyanate ≥0.1-<1% EINECS: 247-722-4 Acute Tox. 2, H330; Resp. Sens. 1, H334; Carc. 2, H351; 1 Skin Irrit. 2, H315; Eye Irrit. 2, Index number: 615-006-00-4 H319; Skin Sens. 1, H317; STOT SE 3, H335; Reg.nr.: 01-2119454791-34-XXXX Aquatic Chronic 3, H412, EUH204 Specific concentration limit: Resp. Sens. 1; H334: C ≥ 0.1 % CAS: 64359-81-5 4,5-dichloro-2-octyl-2H-isothiazol-3-one ≥0.0025-<0.025% Acute Tox. 2, H330; Skin Corr. 1, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=100); EINECS: 264-843-8 Index number: 613-335-00-8 Aquatic Chronic 1, H410 (M=100); 🚯 Acute Tox. 4, H302; Skin Sens. 1A, H317 ATE: LD50 oral: 567 mg/kg Specific concentration limits: Skin Irrit. 2; H315: C ≥ 0.025 % Eye Irrit, 2; H319; C ≥ 0.025 % Skin Sens. 1A; H317: C ≥ 0.0015 % CAS: 1317-65-3 limestone ≥25-<35% EINECS: 215-279-6 CAS: 13463-67-7 titanium dioxide ≥2.5-<5% EINECS: 236-675-5 substance with a Community workplace exposure Index number: 022-006-00-2 limit Reg.nr.: 01-2119489379-17-XXXX

Additional information:

(CAS:13463-67-7) Titanium dioxide

Note 10: The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter \leq 10 µm.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

Medical observation is required for at least 48 hours after the accident since symptoms of poisoning may not show up for several hours.

Allow affected people to get some fresh air. Request medical help immediately

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Trade name: LAVA 20 VERTICAL

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According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

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After inhalation: If the patient becomes unconscious, secure him in a side position for transportation. Get fresh air. Provide artificial respiratory support if necessary. Keep the patient war If symptoms last, see a doctor.	(Contd. of page 3 m.
After skin contact: Wash with soap and water immediately, then thoroughly rinse. Talk to a doctor if skin irritation persists. Take off any contaminated clothing.	
After eye contact: Rinse the opened eye under flowing water for a few minutes. Consult a doctor if the Take off your contact lenses and keep rinsing for a few minutes. Avoid forceful water jets to prevent corneal injury; consult a doctor. After swallowing: Do not force yourself to vomit; instead, contact emergency help right away. Ensure you are getting lots of fresh air and drink. Make a doctor's appointment immed Seek emergency medical attention. Never offer anything by mouth to an unconscious individual.	
 4.2 Most important symptoms and effects, both acute and delayed May be fatal if swallowed and enters airways. 4.3 Indication of any immediate medical attention and special treatment need If swallowed or in case of vomiting, danger of entering the lungs. 	ed
SECTION 5: Firefighting measures	
 SECTION 5: Firefighting measures 5.1 Extinguishing media Suitable extinguishing agents: CO2, powder or water spray. Use foam to put out n For safety reasons unsuitable extinguishing agents: Water with full jet 5.2 Special hazards arising from the substance or mixture No further relevant i 5.3 Advice for firefighters Protective equipment: In the event of fire, self-contained breathing gear and full protective clothes are requi Additional information Separately collect contaminated fire-fighting water. It should not go down the sewage 	nformation available. red.
 5.1 Extinguishing media Suitable extinguishing agents: CO2, powder or water spray. Use foam to put out n For safety reasons unsuitable extinguishing agents: Water with full jet 5.2 Special hazards arising from the substance or mixture No further relevant i 5.3 Advice for firefighters Protective equipment: In the event of fire, self-contained breathing gear and full protective clothes are requi Additional information Separately collect contaminated fire-fighting water. It should not go down the sewage	nformation available. red.
 5.1 Extinguishing media Suitable extinguishing agents: CO2, powder or water spray. Use foam to put out n For safety reasons unsuitable extinguishing agents: Water with full jet 5.2 Special hazards arising from the substance or mixture No further relevant i 5.3 Advice for firefighters Protective equipment: In the event of fire, self-contained breathing gear and full protective clothes are requi Additional information 	nformation available. red. hine.

LAVA 20 VERTICAL Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

7.1 Precautions for safe handling Avoid skin, eye, and clothing contamination. Carefully open and handle the container. Handle carefully. Avoid collision, abrasion, and shaking. Information about fire - and explosion protection: Avoid smoking and keep all combustible materials away. Safeguard against electrostatic charges. Never spray anything to an incandescent or a bare flame. Empty containers may generate flammable gas-air mixtures. Store it in a dry, cold, well-ventilated location, away from heat, fires, ignition, and direct sunlight, 7.2 Conditions for safe storage, including any incompatibilities Storage: Store in cool, dry conditions in well sealed receptacles. Requirements to be met by storerooms and receptacles: Retain in a cold environment. Store far from combustible materials Receptacles should be ventilated. Further information about storage conditions: Preserve the container tightly locked. Safeguard against high temperatures and sunlight. 7.3 Specific end use(s) No further relevant information available. SECTION 8: Exposure controls/personal protection 8.1 Control parameters Ingredients with limit values that require monitoring at the workplace: CAS: 28553-12-0 diisononyl phthalate

Version number 5 (replaces version 4)

WEL (Great Britain) Long-term value: 5 mg/m3

CAS: 13463-67-7 titanium dioxide

WEL (Great Britain) Long-term value: 10* 4** mg/m³ *total inhalable **respirable

CAS: 26471-62-5 m-tolylidene diisocyanate

WEL (Great Britain) Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³ Sen; as -NCO

DNELS

ETHYLBENZOLE REACTION MIXTURE, m-Xylol and p-Xylol.

DNEL Workers:

Inhalation - Intensive systemic effect = 289 mg / m 3

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Revision: 04.10.2021

Trade name: LAVA 20 VERTICAL

6.4 Reference to other sections:

For details on safe handling, see Section 7.

For details on disposal, see Section 13.

SECTION 7: Handling & storage

For details on personal protective equipment, see Section 8.

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Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Printing date 04.10.2	2021	Version number 5 (replaces version 4)	Revision: 04.10.2021
rade name: LAVA	20 VERT	ICAL	
i dan katal		(2) (2) (2) (2)	(Contd. of page 5
		c effect = 77 mg / m 3	
Skin - Chronic sys	stemic effe	ct = 180 mg / kg	
DNEL Comment			
DNEL Consumers Mouth - Chronic s		fact = 1.6 mg/kg	
		ic effect = $174 \text{ mg} / \text{m} 3$	
		c effect = 14.8 mg/m^3	
Skin - Chronic sys			
PNECs			
	E REACT	ION MIXTURE, m-Xylol and p-Xylol.	
PNEC:			
in fresh water 0.3			
in marine water 0.		0.46 mg / hg	
for sediment in free for sediment in m			
for water, intermi			
for STP 6.58 mg/			
for the terrestrial			
8.2 Exposure con	trols		
Individual prote General protecti		ures, such as personal protective equipment gienic measures:	
Avoid food, drink	, and feed.		
Prior to breaks an	d after wor	k, wash your hands.	
		your skin and eyes.	
		smoking while using the product.	
Avoid inhaling m	ists or vapo	ors.	
Respiratory prot	ection:		
protec	tion is nec a charcoal	equate ventilation, use an appropriate respiratory prote essary while spraying and in poorly ventilated work s filter and particle filter A2-P2 (EN529) combination	paces. For brief durations of
Hand protection			
alla			
Protecti	ve gloves	resistant to chemicals (standard EN 374-1)	
No advice for the of studies.	glove mat	oves must be waterproof and resistant to the product, s erial for the product, preparation, or chemical mixture	can be made due to a lack
Choose the glove	material w	hile taking the degradation, diffusion, and penetration	rates into account
Material of glove			
		ing the product at room temperature:	
		≥0,5mm; breakthrough time ≥480min.	
		hickness ≥ 0.4 mm; breakthrough time ≥ 480 min.	

Recommendation: contaminated gloves should be disposed of.

The material used for the gloves must be waterproof and resistant to the product, substance, or preparation. No advice for the glove material for the product, preparation, or chemical mixture can be made due to a lack of studies. Choose the glove material while taking the degradation, diffusion, and penetration rates into account

LAVA 20 VERTICAL Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Printing date 04.10.2021 Version number 5 (replaces version 4) Revision: 04.10.2021 Trade name: LAVA 20 VERTICAL (Contd. of page 6) Penetration time of glove material The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended. **Eve/face** protection Safety glasses with side-shields (frame goggles) (e.g. EN 166) **Body protection:** Chemically resistant, protective work clothing (EN 14605) and boots. SECTION 9: Physical & chemical properties 9.1 Information on basic physical and chemical properties **General Information** Physical state Viscous liquid Colour: Various colours Odour: Light Not determined **Odour threshold:** Melting point/freezing point: Not determined Not applicable Flammability Lower and upper explosion limit Lower: Not determined Upper: Not determined Flash point: 31 °C (ASTM D93) Product is not selfigniting. Auto-ignition temperature: Not determined **Decomposition temperature:** pH Not determined **Kinematic viscosity** 6000 mPas **Dynamic:** Not determined Solubility Not miscible water: Partition coefficient n-octanol/water (log value) Not determined Vapour pressure: Not determined Density and/or relative density Density at 20 °C: 1.34-1.35 g/cm3 **Relative density** Not determined Vapour density Not determined 9.2 Other information Appearance: Form: Viscous liquid Important information on protection of health and environment, and on safety. 488 °C Auto-ignition temperature: (Contd. on page 8)

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Trade name: LAVA 20 VERTICAL

	(Contd. of page
Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Solvent separation test:	<1 % (UN Part III, par. 32.5.1)
Solvent content:	
VOC (EC)	262 g/l
Cloud point / clarification point:	
Oxidising properties	Not considered as oxidising.
Evaporation rate	Not determined
Information with regard to physical hazard	classes
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	
Flammable liquid and vapour.	
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flamm	able
gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

SECTION 10: Stability & reactivity

10.1 Reactivity Stable under normal conditions

10.2 Chemical stability Material is stable under normal conditions.

Thermal decomposition / conditions to be avoided

To avoid thermal decomposition do not overheat.

Stable at environment temperature.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid Avoid heat, sparkles, naked flame or other sources of ignition.

10.5 Incompatible materials No further relevant information available.

10.6 Hazardous decomposition products No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 Acute toxicity Based on available data, the classification criteria are not met.

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ATE (Acu	te Toxicity Estimates)	
Dermal	LD50	6,425 mg/kg
Inhalative	LC50/4 h (vapour)	28.1 mg/l
Reaction	mass of ethylbenzene and	m-xylene and p-xylene
Oral	LD50	4,300 mg/kg (rat)
Inhalative	LC50 (4h)	5,000 ppm (rat)
		5,000 ppm (rabbit)
CAS: 264	71-62-5 m-tolylidene diiso	cyanate
Oral	LD50	4,130 mg/kg (rat)
Dermal	LD50	>9,400 mg/kg (rabbit)
CAS: 643	59-81-5 4,5-dichloro-2-oct	yl-2H-isothiazol-3-one
Oral	LD50	567 mg/kg (ATE)
Skin corre Serious ey Respirato Inhalation		a irritation. Is serious eye irritation. Illergies, asthma, or breathing problems.
Skin corre Serious ey Respirato Inhalation Might rest Germ cell Carcinogo Reproduc STOT-sin STOT-rep STOT Rep May cause Aspiration Additiona	osion/irritation Causes skin ve damage/irritation Causes ry or skin sensitisation may result in symptoms of a alt in an allergic skin condition mutagenicity Based on available d tive toxicity Based on available d stive toxicity Based on avail gle exposure Based on avail gle exposure Category 2 e damage to organs through n hazard Based on available d toxicological information ion Sensitization possible th	n irritation. es serious eye irritation. allergies, asthma, or breathing problems. on. ailable data, the classification criteria are not met. lata, the classification criteria are not met. lable data, the classification criteria are not met. prolonged or repeated exposure. e data, the classification criteria are not met. at
Skin corre Serious ey Respirato Inhalation Might resu Germ cell Carcinoge Reproduc STOT-sin STOT-rep STOT Rep May cause Aspiration Additional Sensitisati 11.2 Infor	osion/irritation Causes skin ve damage/irritation Causes ry or skin sensitisation may result in symptoms of a alt in an allergic skin condition mutagenicity Based on available dive toxicity Based on available d speated exposure Based on avail peated exposure beated Exposure Category 2 a damage to organs through n hazard Based on available d toxicological information ion Sensitization possible threation on other hazards	allergies, asthma, or breathing problems. on. ailable data, the classification criteria are not met. lata, the classification criteria are not met. lable data, the classification criteria are not met.
Skin corre Serious ey Respirato Inhalation Might rest Germ cell Carcinoge Reproduc STOT-sin STOT-rep STOT Rep May cause Aspiration Additiona Sensitisat 11.2 Infor Endocrine	osion/irritation Causes skin ve damage/irritation Causes ry or skin sensitisation may result in symptoms of a alt in an allergic skin condition mutagenicity Based on available d tive toxicity Based on available d stive toxicity Based on avail gle exposure Based on avail gle exposure Category 2 e damage to organs through n hazard Based on available d toxicological information ion Sensitization possible th	allergies, asthma, or breathing problems. on. ailable data, the classification criteria are not met. lata, the classification criteria are not met. lable data, the classification criteria are not met.

Aquatic toxicity:

CAS: 26471-62-5 m-tolylidene diisocyanate

EC50 (48h) 12.5 mg/l (daphnia magna)

LC50 (96h) 133 mg/l (Oncorhynchus mykiss)

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

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Revision: 04.10.2021 Version number 5 (replaces version 4) Trade name: LAVA 20 VERTICAL (Contd. of page 9) 12.5 Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable. 12.6 Endocrine disrupting properties For information on endocrine disrupting properties see section 11. 12.7 Other adverse effects Remark: Harmful to fish Additional ecological information: **General notes:** Do not let undiluted products or substantial quantities of them into sewage systems, water courses, or groundwater. Environmentally hazardous components are present in the product. Detrimental to aquatic life

SECTION 13: Disposal considerations

13.1 Waste treatment methods Recommendation



Dispose according to National Regulations.



Not to be disposed of with regular trash. Do not let product enter the drainage system.

Contact manufacturer for recycling information.

Uncleaned packaging:

Recommendation:

Official guidelines must be followed while disposing of materials. After cleaning, packaging can be recycled or used again.

SECTION 14: Transport information

14.1 UN number or ID number ADR, IMDG, IATA	UN1866
14.2 UN proper shipping name ADR IMDG, IATA	1866 RESIN SOLUTION RESIN SOLUTION
14.3 Transport hazard class(es) ADR, IMDG, IATA	
Class	3 Flammable liquids.
Label	3
	(Contd. on page

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Frade name: LAVA 20 VERTICAL		
		(Contd. of page 10
14.4 Packing group ADR, IMDG, IATA	ш	
14.5 Environmental hazards: Marine pollutant:	No	
14.6 Special precautions for user Hazard identification number (Kemler code): EMS Number: Stowage Category	Warning: Flammable liquids. 30 F-E,S-E A	
14.7 Maritime transport in bulk according to IM instruments	O Not applicable.	
Transport/Additional information:		
ADR		
Limited quantities (LQ)	5L	
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inn Maximum net quantity per out	
Transport category	3	1.00
Tunnel restriction code	D/E	
IMDG		
Limited quantities (LQ)	5L	
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inn Maximum net quantity per out	
UN "Model Regulation":	UN 1866 RESIN SOLUTION.	3, 111

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture REACH Regulation 1907/2006/EC Regulation (EU) 2020/878 CLP Regulation 1272/2008/EC

Directive 98/24/EC on safeguarding employees' health and safety against hazards posed by chemical agents at work.

Youth protection at work: amended version of Council Directive 94/33/EC.

The amended version of Directive 92/85/EEC on the adoption of measures to promote advancements in the safety and health at work of pregnant employees, new mothers, and nursing employees

Directive 2012/18/EU

Named dangerous substances - ANNEX I Substance is not listed.

Seveso category P5c FLAMMABLE LIQUIDS

Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000 t

Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000 t

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 52a, 74

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National regulations:

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57

It doesn't contain substances of very high concern (SVHC).

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on what we know right now. This, however, does not create a legally binding business relationship or a guarantee for any particular product characteristics.

Relevant phrases

H226 Flammable liquid and vapour.

- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H330 Fatal if inhaled.
- H332 Harmful if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 May cause respiratory irritation.
- H351 Suspected of causing cancer.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- EUH204 Contains isocyanates. May produce an allergic reaction.

Training hints

On the basis of all the available knowledge, the staff should receive the proper training about safety when handling, storing, and converting the product.

Version number of previous version: 4

Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)
- DNEL: Derived No-Effect Level (REACH)
- PNEC: Predicted No-Effect Concentration (REACH)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic SVHC: Substances of Very High Concern
- vPvB: very Persistent and very Bioaccumulative

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(Contd. of page 12) Flam. Liq. 3: Flammable liquids - Category 3 Acute Tox. 4: Acute toxicity - Category 4 Acute Tox. 2: Acute toxicity - Category 2 Skin Corr. 1: Skin corrosion/irritation - Category I Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Dam. 1: Serious eye damage/eye irritation - Category | Eye Irrit. 2: Serious eye damage/eye irritation - Category 2 Resp. Sens. 1: Respiratory sensitisation - Category 1 Skin Sens. 1: Skin sensitisation - Category 1 Skin Sens. 1A: Skin sensitisation - Category 1A Carc. 2: Carcinogenicity - Category 2 STOT SE 3: Specific target organ toxicity (single exposure) - Category 3 STOT RE 2: Specific target organ toxicity (repeated exposure) - Category 2 Asp. Tox. 1: Aspiration hazard - Category 1 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3 * Data compared to the previous version altered.



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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: LAVA 20 CLEAR TOP COAT UFI: GUE0-R0FC-F00T-A3CH

1.2 Relevant identified uses of the substance or mixture and uses advised against Professional use **Application of the substance / the mixture:** Waterproofing coating

1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier: OWL WATERPROOFING SOLUTIONS 135, Slaney Road, Dublin Industrial Estate Glasnevin, Dublin 11 Tel: +353 01 830 2250 Email: info@owlwaterproofing.co.uk Website: www.owlwaterproofing.co.uk 1.4 Emergency telephone number:



European Emergency Tel.: +353 01 830 2250

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Classification according to Regulation EC No 1272/2008 CLP:



Flam. Liq. 3

H226 Flammable liquid and vapour.



GHS08 health hazard

STOT RE 2H373 May cause damage to organs through prolonged or repeated exposure.Asp. Tox. 1H304 May be fatal if swallowed and enters airways.



Skin Irrit. 2	H315 Causes skin irritation.
Eye Irrit. 2	H319 Causes serious eye irritation.
Skin Sens. 1	H317 May cause an allergic skin reaction.
STOT SE 3	H335 May cause respiratory irritation.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

(Contd. on page 2)

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Trade name: LAVA 20 CLEAR TOP COAT

(Contd. of page 1)

2.2 Label elements Labelling according to Regulation EC No 1272/2008 CLP: The product is classified and labelled according to the CLP regulation. Hazard pictograms:



Signal word: Danger

Hazard-determining components of labelling:

Reaction mass of ethylbenzene and m-xylene and p-xylene 1,6-hexanediyl-bis(2-(2-(1-ethylpentyl)-3-oxazolidinyl)ethyl)carbamate 3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate

Hazard statements:

H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H304 May be fatal if swallowed and enters airways.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331	Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P	338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
22 Other hor	and a

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

(Contd. on page 3)

Safety data sheet complying with Regulation 1907/2006/EC (REACH Regulation), EU 2020/878 and Regulation No 1272/2008/EC (CLP)

ade name: LAVA 20 CLEAR TOP C	OAT	-
P308+P313 IF exposed or cor P403+P235 Store in a well-ve	(ncerned: Get medical advice/attention. entilated place. Keep cool. nts/container in accordance with local/regional/national/inf produce an allergic reaction.	Contd. of page 2
SECTION 3: Composition/inform 3.2 Mixtures Description: Mixture: consisting of Ingredients according Regulation	the following components.	
EC number: 905-562-9 Reg.nr.: 01-2119488216-32-XXXX	Reaction mass of ethylbenzene and m-xylene and p- xylene Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335; Aquatic Chronic 3, H412	25-50%
CAS: 9016-87-9	diphenylmethane diisocyanate, isomeres and homologues	10-25%
CAS: 108-65-6 EINECS: 203-603-9 Index number: 607-195-00-7 Reg.nr.: 01-2119475791-29-XXXX	2-methoxy-1-methylethyl acetate Flam. Liq. 3, H226	10-25%
CAS: 26471-62-5 EINECS: 247-722-4 Index number: 615-006-00-4 Reg.nr.: 01-2119454791-34-XXXX	 m-tolylidene diisocyanate Acute Tox. 2, H330; Resp. Sens. 1, H334; Carc. 2, H351; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335; Aquatic Chronic 3, H412, EUH204 Specific concentration limit: Resp. Sens. 1; H334: C ≥ 0.1 % 	≥0.1-<1%

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(Contd. of page 3) Take affected persons out into the fresh air. Seek immediate medical advice. After inhalation: In case of unconsciousness place patient stably in side position for transportation. Supply fresh air and to be sure call for a doctor. After skin contact: Immediately wash with water and soap and rinse thoroughly. Remove contaminated clothing. Wash contaminated clothing before use. In case of skin irritation, consult a physician. After eve contact: Rinse opened eye for at least 15 minutes under running water. Protect unharmed eye. Seek immediate medical advice. Avoid strong water jet-risk of cornea damage, consult a doctor. After swallowing: Do not induce vomiting; call for medical help immediately. Drink plenty of water and provide fresh air. Call for a doctor immediately. Never give anything by mouth to an unconscious person. 4.2 Most important symptoms and effects, both acute and delayed May be fatal if swallowed and enters airways. 4.3 Indication of any immediate medical attention and special treatment needed If swallowed or in case of vomiting, danger of entering the lungs. **SECTION 5: Firefighting measures** 5.1 Extinguishing media Suitable extinguishing agents: CO2, powder or water spray. Fight larger fire with foam. For safety reasons unsuitable extinguishing agents: Water with full jet 5.2 Special hazards arising from the substance or mixture During heating or in case of fire poisonous gases are produced. Carbon dioxide (CO2)

Carbon monoxide (CO)

5.3 Advice for firefighters Protective equipment:

Wear fully protective suit.

Mouth respiratory protective device.

Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation of vapors.

Mouth respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources.

6.1.1 For non-emergency personnel Avoid contact with dripping or leaking material

6.1.2 For emergency responders

Wear protective equipment. Keep unprotected persons away.

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(Contd. of page 4) First-aid responders must wear protectice clothing, gloves, goggles and respiratory device with filter type A. 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

Do not allow to penetrate the ground/soil.

6.3 Methods and material for containment and cleaning up:

Collect with absorbent material (sand, diatomite).

Dispose contaminated material as waste according to item 13.

Send for recovery or disposal in suitable receptacles.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling Open and handle receptacle with care. Handle with care. Avoid jolting, friction and impact. Information about fire - and explosion protection:



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Do not spray onto a naked flame or any incandescent material.

Flammable gas-air mixtures may form in empty receptacles.

7.2 Conditions for safe storage, including any incompatibilities

Storage: Store in cool, dry conditions in well sealed receptacles.

Requirements to be met by storerooms and receptacles:

Store in a cool location.

Store away from sources of ignition

Prevent any seepage into the ground.

Provide ventilation for receptacles.

Further information about storage conditions: Protect from heat and direct sunlight.

7.3 Specific end use(s) No further relevant information available.

8.1 Control parame	ters	
Ingredients with limit values that require monitoring at the workplace:		
CAS: 108-65-6 2-m	ethoxy-1-methylethyl acetate	
WEL (Great Britain)	Short-term value: 548 mg/m ³ , 100 ppm Long-term value: 274 mg/m ³ , 50 ppm Sk	
IOELV (EU)	Short-term value: 550 mg/m ³ , 100 ppm Long-term value: 275 mg/m ³ , 50 ppm Skin	

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ade name: LAVA 20 C	LEAR TOP COAT	
to the second second		(Contd. of page 5
CAS: 4098-71-9 3-iso	cyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	(contai of page :
	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen: as -NCO	
CAS: 108-31-6 malei	c anhvdride	
WEL (Great Britain)	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³ Sen	
DNELs	and a second to be a	
DNEL Workers: Inhalation - Intensive s Inhalation - Chronic s Skin - Chronic system DNEL Consumers: Mouth - Chronic syste	EACTION MIXTURE, m-Xylol and p-Xylol. systemic effect = 289 mg / m 3 ystemic effect = 77 mg / m 3 ic effect = 180 mg / kg emic effect = 1.6 mg / kg	
Inhalation - Chronic system PNECs ETHYLBENZOLE RI PNEC: in fresh water 0.327 m in marine water 0.327 for sediment in fresh w for sediment in marine for water, intermittent for STP 6.58 mg / 1 m for the terrestrial area	mg / 1 water 12,46 mg / kg ewater 12,46 mg / kg release of 0.327 mg / 1 icroorganisms of 2,31 mg / kg	
Ingredients with biol		
	cyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	
BMGV (Great Britain	 1 μmol creatinine/mol Medium: urine Sampling time: At the end of the period od exposure Parameter: isocyanate-derived diamine 	1
8.2 Exposure control	s	
General protective and Keep away from foods Wash hands before bro Store protective clothi Avoid contact with the Do not breathe vapour	e eyes and skin.	
Do not eat. drink of si	noke while using the product.	

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Respiratory protection:

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Use suitable respiratory protective device in case of insufficient ventilation. Respiratory protection required in insufficiently ventilated working areas and during spraying. An air-fed mask, or for short periods of work, a combination of charcoal filter and particulate filter A2-P2 (EN529) is recommended.

Hand protection



Protective gloves resistant to chemicals (standard EN 374-1)

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation Material of gloves

Hand protection when handling the product at room temperature:

Butyl rubber - IIR: thickness ≥0,5mm; breakthrough time ≥480min.

Fluorinated rubber - FKM: thickness ≥0,4mm; breakthrough time ≥480min.

Recommendation: contaminated gloves should be disposed of.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. **Penetration time of glove material**

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended. Eye/face protection



Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:



Chemically resistant, protective work clothing (EN 14605) and boots.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and ch General Information	emical properties	
Physical state	Viscous liquid	
Colour:	Clear	
Odour:	Characteristic	
Odour threshold:	Not determined	
Melting point/freezing point:	Not determined	
Boiling point or initial boiling point and	boiling	
range	162 °C	
Flammability	Not applicable	

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	(Contd. of page
Lower and upper explosion limit	
Lower:	0.7 Vol %
Upper:	7.5 Vol %
Flash point:	30 °C
Auto-ignition temperature:	Product is not selfigniting.
Decomposition temperature:	Not determined
Viscosity:	
Kinematic viscosity	Not determined
Kinematic viscosity	
Dynamic at 20 °C:	>40 mPas
Solubility	
water:	Not miscible
Partition coefficient n-octanol/water (log value)	Not determined
Vapour pressure at 20 °C:	5 hPa
Density and/or relative density	
Density at 20 °C:	1 g/cm ³
Relative density	Not determined
Vapour density	Not determined
9.2 Other information	
Appearance:	
Appearance. Form:	Liquid
Important information on protection of health an	
environment, and on safety.	a
Auto-ignition temperature:	315 °C
Explosive properties:	Product is not explosive. However, formation of
Explosive properties.	explosive air/vapour mixtures are possible.
Cloud point / clarification point:	explosive an vapour mixtures are possible.
Oxidising properties	Not considered as oxidising.
Evaporation rate	Not determined
Information with regard to physical hazard classe Explosives	void
	Void
Flammable gases Aerosols	Void
	Void
Oxidising gases	
Gases under pressure	Void
Flammable liquids Flammable liquid and vapour.	
Flammable solids	Void
Self-reactive substances and mixtures	Void
	Void
Pyrophoric liquids	Void
Pyrophoric solids	
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable	Void
and in contrast with water	V CHILL
gases in contact with water	
Oxidising liquids	Void
Oxidising liquids Oxidising solids	Void Void
Oxidising liquids	Void

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Void

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Desensitised explosives

SECTION 10: Stability and reactivity

10.1 Reactivity Stable under normal conditions

10.2 Chemical stability Material is stable under normal conditions.

Thermal decomposition / conditions to be avoided

To avoid thermal decomposition do not overheat.

Stable at environment temperature.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid Avoid heat, sparkles, naked flame or other sources of ignition.

10.5 Incompatible materials No further relevant information available.

10.6 Hazardous decomposition products No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Dermal LD50 3,508 mg/kg

Inhalative LC50/4 h (vapour) 33.3 mg/l

Reaction mass of ethylbenzene and m-xylene and p-xylene

Oral	LD50	4,300 mg/kg (rat)	
Inhalative	LC50 (4h)	5,000 ppm (rat)	
		5,000 ppm (rabbit)	

CAS: 108-65-6 2-methoxy-1-methylethyl acetate

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rat)
Inhalative	LC50 (4h)	1,805.05 ppm (rat)

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation Causes serious eye irritation.

Respiratory or skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT-single exposure

The product is classified as Specific Target Organ Toxicity after single exposure Category 3 May cause respiratory irritation.

STOT-repeated exposure

STOT Repeated Exposure Category 2

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

The product is classified Aspiration toxicity Category 1

May be fatal if swallowed and enters airways.

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11.2 Information on other hazards

Endocrine disrupting properties None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

CAS: 108-65-6 2-methoxy-1-methylethyl acetate

EC50 (48h) 8.8 mg/l (crustacean)

LC50 (96h) 6.83 mg/l (fis)

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Endocrine disrupting properties For information on endocrine disrupting properties see section 11.12.7 Other adverse effects

Remark: Harmful to fish

Additional ecological information:

General notes:

The product contains materials that are harmful to the environment.

Harmful to aquatic organisms

SECTION 13: Disposal considerations

13.1 Waste treatment methods Recommendation



Dispose according to National Regulations.



Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact manufacturer for recycling information.

Uncleaned packaging: Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN number or ID number ADR, IMDG, IATA

UN1866

(Contd. on page 11)

and a set of the second second second second second		
rade name: LAVA 20 CLEAR TOP COAT		
	(Contd. of page 10	
14.2 UN proper shipping name ADR IMDG, IATA	1866 RESIN SOLUTION RESIN SOLUTION	
14.3 Transport hazard class(es)		
ADR, IMDG, IATA	3 Flammable liquids.	
	3	
14.4 Packing group ADR, IMDG, IATA	ш	
14.5 Environmental hazards: Marine pollutant:	No	
14.6 Special precautions for user Hazard identification number (Kemler code): EMS Number: Stowage Category	Warning: Flammable liquids. 30 F-E,S-E A	
14.7 Maritime transport in bulk according to IM instruments	IO Not applicable.	
Transport/Additional information:		
ADR Limited quantities (LQ) Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml	
Transport category Tunnel restriction code	3 D/E	
IMDG Limited quantities (LQ) Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml	
UN "Model Regulation":	UN 1866 RESIN SOLUTION, 3, III	

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 94/62/EC on packaging and packaging waste. REACH Regulation 1907/2006/EC Regulation (EU) 2020/878 CLP Regulation 1272/2008/EC

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Directive 98/24/EC on the protection of health and safety of workers from the risks related to chemicals agents at work.

Council Directive 94/33/EC on the protection of young people at work, as ammended. Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding, as ammended

Directive 2012/18/EU

Named dangerous substances - ANNEX I Substance is not listed.

Seveso category

P5c FLAMMABLE LIQUIDS

P5c FLAMMABLE LIQUIDS

Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000 t Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000 t REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 74

National regulations:

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57

It doesn't contain substances of very high concern (SVHC).

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H332 Harmful if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.

EUH204 Contains isocyanates. May produce an allergic reaction.

Training hints

Suitable training on safety in handling, storing and converting the product should be given to the employees based on all the existing information.

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Trade name: LAVA 20 CLEAR TOP COAT

(Contd. of page 12) Department issuing SDS: **OWL WATERPROOFING SOLUTIONS** 135, Slaney Road, Dublin Industrial Estate Glasnevin, Dublin 11 Tel: +353 01 830 2250 Email: info@owlwaterproofing.co.uk Website: www.owlwaterproofing.co.uk Version number of previous version: 2 Abbreviations and acronyms: ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (REACH) PNEC: Predicted No-Effect Concentration (REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic SVHC: Substances of Very High Concern vPvB: very Persistent and very Bioaccumulative Flam. Liq. 2: Flammable liquids - Category 2 Flam. Liq. 3: Flammable liquids - Category 3 Acute Tox. 4: Acute toxicity - Category 4 Acute Tox. 3: Acute toxicity - Category 3 Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Irrit. 2: Serious eye damage/eye irritation - Category 2 Resp. Sens. 1: Respiratory sensitisation - Category 1 Skin Sens. 1: Skin sensitisation - Category 1 Skin Sens. 1B: Skin sensitisation - Category 1B STOT SE 3: Specific target organ toxicity (single exposure) - Category 3 STOT RE 2: Specific target organ toxicity (repeated exposure) - Category 2 Asp. Tox. 1: Aspiration hazard - Category 1 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3 * Data compared to the previous version altered.



Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Version number 5 (replaces version 4) Printing date 04.10.2021 Revision: 04.10.2021 SECTION 1: Identification of the substance/mixture and of the company /undertaking 1.1 Product identifier **Trade name: LAVA 20 VERTICAL** 1.2 Relevant identified uses of the substance or mixture and uses advised against Professional use Application of the substance / the mixture: Polyurethane Waterproofing coating 1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier: **OWL WATERPROOFING SOLUTIONS** 135 Slaney Road, Dublin Industrial Estate Glasnevin, Dublin 11 Tel: +353 01 830 2250 Email: info@owlwaterproofing.co.uk Website: www.owlwaterproofing.co.uk 1.4 Emergency telephone number: European Emergency Tel.: +353 01 830 2250 **SECTION 2: Hazard identification** 2.1 Classification of the substance or mixture Classification according to Regulation EC No 1272/2008 CLP: GHS02 flame Flam. Liq. 3 H226 Flammable liquid and vapour. GHS08 health hazard Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure. GHS07 H315 Causes skin irritation. Skin Irrit. 2 Eye Irrit. 2 H319 Causes serious eye irritation. Skin Sens. 1 H317 May cause an allergic skin reaction. Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects. 2.2 Label elements Labelling according to Regulation EC No 1272/2008 CLP: The product is classified and labelled according to the CLP regulation.

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Safety Data Sheet

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According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Printing date 15.07.2021 Version number 5 (replaces version 4) Revision: 15.07.2021 SECTION 1: Identification of the substance/mixture and of the company /undertaking 1.1 Product identifier Trade name: LAVA 20 DARK GREY TOP COAT 1.2 Relevant identified uses of the substance or mixture and uses advised against Professional use Application of the substance / the mixture: Polyurethane Waterproofing coating 1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier: **OWL WATERPROOFING SOLUTIONS** 135 Slaney Road, Dublin Industrial Estate Glasnevin, Dublin 11 Tel: +353 01 830 2250 Email: info@owlwaterproofing.co.uk Website: www.owlwaterproofing.co.uk 1.4 Emergency telephone number: European Emergency Tel.: +353 01 830 2250 **SECTION 2: Hazards identification** 2.1 Classification of the substance or mixture Classification according to Regulation EC No 1272/2008 CLP: GHS02 flame Flam, Liq. 3 H226 Flammable liquid and vapour. GHS08 health hazard STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure. Asp. Tox. 1 H304 May be fatal if swallowed and enters airways. GHS07 H315 Causes skin irritation. Skin Irrit. 2 Eye Irrit. 2 H319 Causes serious eye irritation. Skin Sens. 1 H317 May cause an allergic skin reaction. STOT SE 3 H335 May cause respiratory irritation. Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects. (Contd. on page 2)

LAVA 20 DARK GREY TOP COAT Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

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Version number 5 (replaces version 4)

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Trade name: LAVA 20 DARK GREY TOP COAT

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2.2 Label elements Labelling according to Regulation EC No 1272/2008 CLP: The product is classified and labelled according to the CLP regulation. Hazard pictograms:



Signal word: Danger

Hazard-determining components of labelling:

Reaction mass of ethylbenzene and m-xylene and p-xylene 1,6-hexanediyl-bis(2-(2-(1-ethylpentyl)-3-oxazolidinyl)ethyl)carbamate 3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers 4,5-dichloro-2-octyl-2H-isothiazol-3-one maleic anhydride 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate Addition reaction products of conjugated sunflower-oil fatty acids and tall-oil fatty acids with maleic anhydride

Hazard statements:

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H304 May be fatal if swallowed and enters airways.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331	Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P33	8 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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Trade name: LAVA 20 DARK GREY TOP COAT

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Additional information: EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist. 2.3 Other hazards

Results of PBT and vPvB assessment PBT: Not applicable. **vPvB:** Not applicable.

SECTION 3:	Composition/in	formation on in	gredients
------------	----------------	-----------------	-----------

3.2 Mixtures

Description: Mixture: consisting of the following components.

Reaction mass of ethylbenzene and m-xylene and p- xylene Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335; Aquatic Chronic 3, H412	≥30-<40%
1,6-hexanediyl-bis(2-(2-(1-ethylpentyl)-3-oxazolidinyl) ethyl)carbamate Skin Sens. 1, H317	≥3-<5%
2-methoxy-1-methylethyl acetate Flam. Liq. 3, H226	≥3-<5%
 3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers Skin Sens. 1B, H317; STOT SE 3, H335 	≥3-<5%
 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate Acute Tox. 3, H331; Resp. Sens. 1, H334; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204 Specific concentration limits: Resp. Sens. 1; H334: C ≥ 0.5 % Skin Sens. 1; H317: C ≥ 0.5 % 	≥0.25-<0.5%
	 ♦ Flam. Liq. 3, H226; ♦ STOT RE 2, H373; Asp. Tox. 1, H304; ↑ Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335; Aquatic Chronic 3, H412 1,6-hexanediyl-bis(2-(2-(1-ethylpentyl)-3-oxazolidinyl) ethyl)carbamate ♦ Skin Sens. 1, H317 2-methoxy-1-methylethyl acetate ♦ Flam. Liq. 3, H226 3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, oligomers ♦ Skin Sens. 1B, H317; STOT SE 3, H335 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate ♦ Acute Tox. 3, H331; ♦ Resp. Sens. 1, H334; ♦ Aquatic Chronic 2, H411; ↑ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204 Specific concentration limits: Resp. Sens. 1; H334; C ≥ 0.5 %

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Trade name: LAVA 20 DARK GREY TOP COAT

EC number: 701-043-4 Reg.nr.: 01-2119976378-19-XXXX	Addition reaction products of conjugated sunflower-oil fatty acids and tall-oil fatty acids with maleic anhydride Skin Irrit, 2, H315; Skin Sens. 1, H317	(Contd. of page 3) ≥0.1-<1%
CAS: 64359-81-5 EINECS: 264-843-8 Index number: 613-335-00-8	4,5-dichloro-2-octyl-2H-isothiazol-3-one Acute Tox. 2, H330; Skin Corr. 1, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100); Acute Tox. 4, H302; Skin Sens. 1A, H317 Specific concentration limits: Skin Irrit. 2; H315: $C \ge 0.025 \%$ Eye Irrit. 2; H319: $C \ge 0.025 \%$ Skin Sens. 1A; H317: $C \ge 0.0015 \%$	≥0.0025-<0.025%
CAS: 108-31-6 EINECS: 203-571-6 Index number: 607-096-00-9 Reg.nr.: 01-2119472428-31-XXXX	maleic anhydride & Resp. Sens. 1, H334; STOT RE 1, H372;	≥0.001-<0.1%
CAS: 13463-67-7 EINECS: 236-675-5 Index number: 022-006-00-2 Reg.nr.: 01-2119489379-17-XXXX	titanium dioxide substance with a Community workplace exposure limit	≥10-<20%

Additional information:

(CAS:13463-67-7) Titanium dioxide

Note 10: The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter \leq 10 µm.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

Medical observation is required for at least 48 hours after the accident since symptoms of poisoning may not show up for several hours.

Allow affected people to get some fresh air. Request medical help immediately

After inhalation:

If the patient becomes unconscious, secure him in a side position for transportation.

Get fresh air.

If symptoms last, see a doctor.

After skin contact:

Wash with soap and water immediately, then thoroughly rinse.

Talk to a doctor if skin irritation persists.

Take off any contaminated clothing.

After eye contact:

Rinse the opened eye under flowing water for at least 15 minutes. Safeguard uninjured eye.

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LAVA 20 DARK GREY TOP COAT Safety Data Sheet

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Trade name: LAVA 20 DARK GREY TOP COAT

Seek immediate medical assistance.

After swallowing:

Do not force yourself to vomit; instead, contact emergency help right away.

Ensure you are getting lots of fresh air and drink. Make a doctor's appointment immediately.

Seek emergency medical attention.

Never offer anything by mouth to an unconscious individual.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray.

For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture No further relevant information available.

5.3 Advice for firefighters

Protective equipment:

Self-contained breathing gear and full protective clothes are required.

Additional information

Separately collect contaminated fire-fighting water. It should not go down the sewage line.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Wear safety gear when necessary. Keep vulnerable people at a distance.

Avoid breathing in fumes.

Stay away from sources of ignition.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Utilize absorbent material to collect (sand, diatomite).

Make sure there is enough airflow.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling Ensure good ventilation/exhaustion at the workplace. Information about fire - and explosion protection:



Avoid smoking and keep all combustible materials away.

Safeguard against electrostatic charges.

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LAVA 20 DARK GREY TOP COAT Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

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Trade name: LAVA 20 DARK GREY TOP COAT

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7.2 Conditions for safe storage, including any incompatibilities Storage:

Requirements to be met by storerooms and receptacles:

Retain in a cold environment.

Store far from combustible materials

Receptacles should be ventilated.

Further information about storage conditions:

Preserve the container tightly locked.

Safeguard against high temperatures and sunlight.

Protect from heat and direct sunlight.

7.3 Specific end use(s) No further relevant information available.

CAS: 13463-67-7 titan WEL (Great Britain) L * CAS: 108-65-6 2-meth WEL (Great Britain) S L S IOELV (EU) S L S	ong-term value: 10* 4** mg/m ³ total inhalable **respirable oxy-1-methylethyl acetate hort-term value: 548 mg/m ³ , 100 ppm ong-term value: 274 mg/m ³ , 50 ppm	.ce:
WEL (Great Britain) L * CAS: 108-65-6 2-meth WEL (Great Britain) S L S IOELV (EU) S L S	ong-term value: 10* 4** mg/m ³ total inhalable **respirable oxy-1-methylethyl acetate hort-term value: 548 mg/m ³ , 100 ppm ong-term value: 274 mg/m ³ , 50 ppm k hort-term value: 550 mg/m ³ , 100 ppm ong-term value: 275 mg/m ³ , 50 ppm	
* CAS: 108-65-6 2-meth WEL (Great Britain) S L S IOELV (EU) S L S S	total inhalable **respirable oxy-1-methylethyl acetate hort-term value: 548 mg/m ³ , 100 ppm ong-term value: 274 mg/m ³ , 50 ppm k hort-term value: 550 mg/m ³ , 100 ppm ong-term value: 275 mg/m ³ , 50 ppm	
WEL (Great Britain) S L S IOELV (EU) S L S	hort-term value: 548 mg/m ³ , 100 ppm ong-term value: 274 mg/m ³ , 50 ppm k hort-term value: 550 mg/m ³ , 100 ppm ong-term value: 275 mg/m ³ , 50 ppm	
IOELV (EU)	ong-term value: 274 mg/m ³ , 50 ppm k hort-term value: 550 mg/m ³ , 100 ppm ong-term value: 275 mg/m ³ , 50 ppm	
LS	ong-term value: 275 mg/m3, 50 ppm	
CAS: 4098-71-9 3-isoc		
	yanatomethyl-3,5,5-trimethylcyclohexyl isocya	inate
L	hort-term value: 0.07 mg/m ³ ong-term value: 0.02 mg/m ³ en; as -NCO	
CAS: 108-31-6 maleic	anhydride	
L	hort-term value: 3 mg/m ³ ong-term value: 1 mg/m ³ en	
DNEL Workers:	ACTION MIXTURE, m-Xylol and p-Xylol.	
	effect = 289 mg / m 3 temic effect = 77 mg / m 3 effect = 180 mg / kg	
DNEL Consumers: Mouth - Chronic system		
	stemic effect = $174 \text{ mg} / \text{m} 3$ stemic effect = $14.8 \text{ mg} / \text{m} 3$	

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Trade name: LAVA 20 DARK GREY TOP COAT

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Titanium dioxide cas: 13463-67-7 DNEL: 10 mg/m3 PNECs ETHYLBENZOLE REACTION MIXTURE, m-Xylol and p-Xylol. PNEC: in fresh water 0.327 mg / 1 in marine water 0,327 mg / 1 for sediment in fresh water 12,46 mg / kg for sediment in marinewater 12,46 mg / kg for water, intermittent release of 0.327 mg/1 for STP 6.58 mg / 1 microorganisms for the terrestrial area of 2,31 mg / kg

Ingredients with biological limit values:

CAS: 4098-71-9 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate

BMGV (Great Britain) 1 umol creatinine/mol Medium: urine Sampling time: At the end of the period od exposure Parameter: isocyanate-derived diamine

8.2 Exposure controls

Individual protection measures, such as personal protective equipment General protective and hygienic measures: Avoid food, drink, and feed. Protective clothes should be kept apart.

Prior to breaks and after work, wash your hands and skin thoroughly.

Keep your hands away from your skin and eyes.

Avoid eating, drinking, and smoking while using the product.

Avoid inhaling mists or vapors.

Make sure there is enough airflow while using.

The standard protective procedures are to be followed to when handling chemicals.

Respiratory protection:



In cases of inadequate ventilation, use an appropriate respiratory protection gear. Respiratory protection is necessary while spraving and in poorly ventilated work spaces. For brief durations of labor, a charcoal filter and particle filter A2-P2 (EN529) combination mask or an air-fed mask are advised.

Hand protection



Protective gloves resistant to chemicals (standard EN 374-1)

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Material of gloves

Hand protection when handling the product at room temperature:

Butyl rubber - IIR: thickness ≥0,5mm; breakthrough time ≥480min.

Fluorinated rubber - FKM: thickness ≥0,4mm; breakthrough time ≥480min.

Recommendation: contaminated gloves should be disposed of.

(Contd. on page 8)

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The material used for the gloves must be waterproof and resistant to the product, substance, or preparation. No advice for the glove material for the product, preparation, or chemical mixture can be made due to a lack of studies. Choose the glove material while taking the degradation, diffusion, and penetration rates into account **Penetration time of glove material**

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended. **Eye/face protection**



*

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:



Chemically resistant, protective work clothing (EN 14605) and boots.

SECTION 9: Physical & chemical properties

9.1 Information on basic physical and chemical pr	roperties
General Information	1. Sec. 2.
Physical state	Liquid
Colour:	Various colours
Odour:	Characteristic
Odour threshold:	Not determined
Melting point/freezing point:	Not determined
Boiling point or initial boiling point and boiling	
range	130 °C
Flammability	Not applicable
Lower and upper explosion limit	
Lower:	0.8 Vol %
Upper:	Not determined
Flash point:	27-32 °C (closed cup, Reaction mass of ethylbenzene
	and m-xylene and p-xylene)
Auto-ignition temperature:	Product is not selfigniting.
Decomposition temperature:	Not determined
pH	Not determined
Viscosity:	
Kinematic viscosity	Not determined
Kinematic viscosity	
Dynamic at 20 °C:	>40 mPas
Solubility	
water:	Not miscible
Partition coefficient n-octanol/water (log value)	Not determined
Vapour pressure:	Not determined
Density and/or relative density	
Density at 20 °C:	1.14 g/cm ³
Relative density	Not determined
	(Contd. on page

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	(Contd. of pag
Vapour density	Not determined
9.2 Other information	
Appearance:	
Form:	Liquid
Important information on protection of heal environment, and on safety.	
Auto-ignition temperature:	488 °C (xylene)
Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Solvent content:	
VOC (EC)	460 g/l
Cloud point / clarification point:	
Oxidising properties	Not considered as oxidising.
Evaporation rate	Not determined
Information with regard to physical hazard	classes
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	
Flammable liquid and vapour.	
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flamm	able
gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided Stable at environment temperature.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid Avoid heat, sparkles, naked flame or other sources of ignition.

10.5 Incompatible materials No further relevant information available.

10.6 Hazardous decomposition products No dangerous decomposition products known.

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DA CSO	values relevant for cla	data, the classification criteria are not met.		
100 F 10 F 10 F	te Toxicity Estimates)		_	
Dermal	LD50	2,933 mg/kg		
	LC50/4 h (vapour)	>28.2 mg/l		
Reaction mass of ethylbenzene and m-xylene and p-xylene				
Dral	LD50	4,300 mg/kg (rat)		
nhalative	LC50 (4h)	5,000 ppm (rat)		
		5,000 ppm (rabbit)		
CAS: 108	-65-6 2-methoxy-1-met	hylethyl acetate		
Dral	LD50	>5,000 mg/kg (rat)		
Dermal	LD50	>5,000 mg/kg (rat)		
nhalative	LC50 (4h)	1,805.05 ppm (rat)		
CAS: 643	59-81-5 4,5-dichloro-2-	octyl-2H-isothiazol-3-one		
Dral	LD50	567 mg/kg (ATE)		
nhalative	LC50/4h (dusts and mi	sts) 0.16 mg/l (ATE)		
CAS: 108	-31-6 maleic anhydride			
Oral	LD50	400 mg/kg (rat)		
Dermal	LD50	2,620 mg/kg (rabbit)		
Serious ey Respirato Germ cell Carcinoge Reproduc STOT-sin The produ May cause STOT Rep May cause Aspiration The produ	ry or skin sensitisation mutagenicity Based on enicity Based on availab- tive toxicity Based on a gle exposure ct is classified as Specific respiratory irritation. peated exposure beated Exposure Categore damage to organs throu	auses serious eye irritation. May cause an allergic skin reaction. A vailable data, the classification criteria are not met. Alle data, the classification criteria are not met. Available data, the classification criteria are not met. The Target Organ Toxicity after single exposure Category 3 ry 2 high prolonged or repeated exposure. In toxicity Category 1		
1.2 Infor	mation on other hazar	ds		

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A DE LA TRANS - BICKLAS	
12.1 Toxicity	
Aquatic toxicity:	
CAS: 108-65-6 2-methoxy-1-methylethyl	acetate
EC50 (48h) 8.8 mg/l (crustacean)	
LC50 (96h) 6.83 mg/l (fis)	
12.7 Other adverse effects Remark: Harmful to fish Additional ecological information: General notes:	r relevant information available. formation available. at r information on endocrine disrupting properties see section 11. antities of it to reach ground water, water course or sewage syster
13.1 Waste treatment methods Recommendation	
	egulations.
Recommendation Dispose according to National Re	egulations. r trash. Do not let product enter the drainage system.
Recommendation Dispose according to National Relation Not to be disposed of with regular Uncleaned packaging: Recommendation: Official guidelines must be followed while d	r trash. Do not let product enter the drainage system. isposing of materials.
Recommendation Dispose according to National Relation Not to be disposed of with regular Uncleaned packaging: Recommendation: Official guidelines must be followed while d After cleaning, packaging can be recycled or	r trash. Do not let product enter the drainage system. isposing of materials.
Recommendation Dispose according to National Relation Not to be disposed of with regular Uncleaned packaging:	r trash. Do not let product enter the drainage system. isposing of materials.
Recommendation Dispose according to National Relation Not to be disposed of with regular Uncleaned packaging: Recommendation: Official guidelines must be followed while d After cleaning, packaging can be recycled or SECTION 14: Transport information 14.1 UN number or ID number	r trash. Do not let product enter the drainage system. isposing of materials. used again.

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Г	rade name: LAVA 20 DARK GREY TOP COAT	
		(Contd. of page 11
	IMDG, IATA	RESIN SOLUTION
	14.3 Transport hazard class(es) ADR, IMDG, IATA	
	Class	3 Flammable liquids.
1	Label	3
	14.4 Packing group	
	ADR, IMDG, IATA	ш
	14.5 Environmental hazards:	
	Marine pollutant:	No
	14.6 Special precautions for user	Warning: Flammable liquids.
	Hazard identification number (Kemler code):	30
	EMS Number:	F-E, <u>S-E</u>
	14.7 Maritime transport in bulk according to IM instruments	IO Not applicable.
	Transport/Additional information:	
	ADR	
	Limited quantities (LQ)	5L
	Excepted quantities (EQ)	Code: E1
		Maximum net quantity per inner packaging: 30 ml
	Transport optocom	Maximum net quantity per outer packaging: 1000 ml 3
	Transport category Tunnel restriction code	D/E
		212
	IMDG	51.
	Limited quantities (LQ) Excepted quantities (EQ)	SL Code: E1
	Excepted quantities (EQ)	Maximum net quantity per inner packaging: 30 ml
		Maximum net quantity per outer packaging: 1000 ml
	UN "Model Regulation":	UN 1866 RESIN SOLUTION, 3, III

SECTION 15: Regulatory information

*

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
 Directive 94/62/EC on packaging and packaging waste.
 REACH Regulation 1907/2006/EC
 Regulation (EU) 2020/878
 CLP Regulation 1272/2008/EC
 Directive 98/24/EC on the protection of health and safety of workers from the risks related to chemicals agents at work.
 (Control on protection of health and safety of workers from the risks related to chemicals agents at work.

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ade nan	ne: LAVA 20 DARK GREY TOP COAT
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Youth r	protection at work: amended version of Council Directive 94/33/EC.
	ended version of Directive 92/85/EEC on the adoption of measures to promote advancements in
	ty and health at work of pregnant employees, new mothers, and nursing employees
me sare	ty and nearly at work of pregnant employees, new moments, and nursing employees
Named	dangerous substances - ANNEX I Substance is not listed.
	category P5c FLAMMABLE LIQUIDS
Qualify	ving quantity (tonnes) for the application of lower-tier requirements 5,000 t
	ving quantity (tonnes) for the application of upper-tier requirements 50,000 t
	LATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 74
Nation	al regulations:
Other	regulations, limitations and prohibitive regulations
	nces of very high concern (SVHC) according to REACH, Article 57
It doesn	i't contain substances of very high concern (SVHC).
15.2 CI	nemical safety assessment: A Chemical Safety Assessment has not been carried out.
SECTIO	ON 16: Other information
This inf	ormation is based on what we know right now. This, however, does not create a legally binding
busines	s relationship or a guarantee for any particular product characteristics.
Releva	nt phrases
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
	4 Contains isocyanates. May produce an allergic reaction.
201120	(Contd. on page 1
	COULD. OIL DASE 1

LAVA 20 DARK GREY TOP COAT Safety Data Sheet

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Trade name: LAVA 20 DARK GREY TOP COAT

(Contd. of page 13) Department issuing SDS: **OWL WATERPROOFING SOLUTIONS** 135 Slaney Road, Dublin Industrial Estate Glasnevin, Dublin 11 Tel: +353 01 830 2250 Email: info@owlwaterproofing.co.uk Website: www.owlwaterproofing.co.uk Version number of previous version: 4 Abbreviations and acronyms: ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) VOC: Volatile Organic Compounds (USA, EU) DNEL: Derived No-Effect Level (REACH) PNEC: Predicted No-Effect Concentration (REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic SVHC: Substances of Very High Concern vPvB: very Persistent and very Bioaccumulative Flam. Liq. 3: Flammable liquids - Category 3 Acute Tox. 4: Acute toxicity - Category 4 Acute Tox. 2: Acute toxicity - Category 2 Acute Tox. 3: Acute toxicity - Category 3 Skin Corr. 1: Skin corrosion/irritation - Category 1 Skin Corr. 1B: Skin corrosion/irritation - Category 1B Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Dam, 1: Serious eye damage/eye irritation - Category 1 Eye Irrit. 2: Serious eye damage/eye irritation - Category 2 Resp. Sens. 1: Respiratory sensitisation - Category 1 Skin Sens. 1: Skin sensitisation - Category 1 Skin Sens. 1A: Skin sensitisation - Category 1A Skin Sens. 1B: Skin sensitisation - Category 1B STOT SE 3: Specific target organ toxicity (single exposure) - Category 3 STOT RE 1: Specific target organ toxicity (repeated exposure) - Category 1 STOT RE 2: Specific target organ toxicity (repeated exposure) - Category 2 Asp. Tox. 1: Aspiration hazard - Category 1 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3 * Data compared to the previous version altered.



Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Version number 5 (replaces version 4) Printing date 04.10.2021 Revision: 04.10.2021 SECTION 1: Identification of the substance/mixture and of the company /undertaking 1.1 Product identifier **Trade name: LAVA 20 VERTICAL** 1.2 Relevant identified uses of the substance or mixture and uses advised against Professional use Application of the substance / the mixture: Polyurethane Waterproofing coating 1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier: **OWL WATERPROOFING SOLUTIONS** 135 Slaney Road, Dublin Industrial Estate Glasnevin, Dublin 11 Tel: +353 01 830 2250 Email: info@owlwaterproofing.co.uk Website: www.owlwaterproofing.co.uk 1.4 Emergency telephone number: European Emergency Tel.: +353 01 830 2250 **SECTION 2: Hazard identification** 2.1 Classification of the substance or mixture Classification according to Regulation EC No 1272/2008 CLP: GHS02 flame Flam. Liq. 3 H226 Flammable liquid and vapour. GHS08 health hazard Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure. GHS07 H315 Causes skin irritation. Skin Irrit. 2 Eye Irrit. 2 H319 Causes serious eye irritation. Skin Sens. 1 H317 May cause an allergic skin reaction. Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects. 2.2 Label elements Labelling according to Regulation EC No 1272/2008 CLP: The product is classified and labelled according to the CLP regulation.

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LAVA 20 VERTICAL Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Trade name: LAVA 20 VERTICAL (Contd. of page 1) Hazard pictograms: GHS02 GHS08 Signal word: Danger Hazard-determining components of labelling: Reaction mass of ethylbenzene and m-xylene and p-xylene m-tolylidene diisocyanate 4,5-dichloro-2-octyl-2H-isothiazol-3-one Hazard statements: H226 Flammable liquid and vapour. H315 Causes skin irritation. H319 Causes serious eye irritation. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H317 May cause an allergic skin reaction. H373 May cause damage to organs through prolonged or repeated exposure. H412 Harmful to aquatic life with long lasting effects. **Precautionary statements** P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. P261 P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P331 Do NOT induce vomiting. IF ON SKIN: Wash with plenty of water and soap. P302+P352 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container in accordance with local/regional/national/international regulations. Additional information: EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist, 2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

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LAVA 20 VERTICAL Safety Data Sheet

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SECTION 3: Composition/information on ingredients 3.2 Mixtures Description: Mixture: consisting of the following components. Ingredients according Regulation (EU) 2020/878: EC number: 905-562-9 Reaction mass of ethylbenzene and m-xylene and p-≥10-<25% Reg.nr.: 01-2119488216-32-XXXX xylene Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335; Aquatic Chronic 3, H412 CAS: 26471-62-5 m-tolylidene diisocyanate ≥0.1-<1% EINECS: 247-722-4 Acute Tox. 2, H330; Resp. Sens. 1, H334; Carc. 2, H351; 1 Skin Irrit. 2, H315; Eye Irrit. 2, Index number: 615-006-00-4 H319; Skin Sens. 1, H317; STOT SE 3, H335; Reg.nr.: 01-2119454791-34-XXXX Aquatic Chronic 3, H412, EUH204 Specific concentration limit: Resp. Sens. 1; H334: C ≥ 0.1 % CAS: 64359-81-5 4,5-dichloro-2-octyl-2H-isothiazol-3-one ≥0.0025-<0.025% Acute Tox. 2, H330; Skin Corr. 1, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=100); EINECS: 264-843-8 Index number: 613-335-00-8 Aquatic Chronic 1, H410 (M=100); 🚯 Acute Tox. 4, H302; Skin Sens. 1A, H317 ATE: LD50 oral: 567 mg/kg Specific concentration limits: Skin Irrit. 2; H315: C ≥ 0.025 % Eye Irrit, 2; H319; C ≥ 0.025 % Skin Sens. 1A; H317: C ≥ 0.0015 % CAS: 1317-65-3 limestone ≥25-<35% EINECS: 215-279-6 CAS: 13463-67-7 titanium dioxide ≥2.5-<5% EINECS: 236-675-5 substance with a Community workplace exposure Index number: 022-006-00-2 limit Reg.nr.: 01-2119489379-17-XXXX

Additional information:

(CAS:13463-67-7) Titanium dioxide

Note 10: The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter \leq 10 µm.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

Medical observation is required for at least 48 hours after the accident since symptoms of poisoning may not show up for several hours.

Allow affected people to get some fresh air. Request medical help immediately

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Trade name: LAVA 20 VERTICAL

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According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

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After inhalation: If the patient becomes unconscious, secure him in a side position for transportation. Get fresh air. Provide artificial respiratory support if necessary. Keep the patient war If symptoms last, see a doctor.	(Contd. of page 3
After skin contact: Wash with soap and water immediately, then thoroughly rinse. Talk to a doctor if skin irritation persists. Take off any contaminated clothing.	
After eye contact: Rinse the opened eye under flowing water for a few minutes. Consult a doctor if the Take off your contact lenses and keep rinsing for a few minutes. Avoid forceful water jets to prevent corneal injury; consult a doctor. After swallowing: Do not force yourself to vomit; instead, contact emergency help right away. Ensure you are getting lots of fresh air and drink. Make a doctor's appointment immed Seek emergency medical attention. Never offer anything by mouth to an unconscious individual.	
 4.2 Most important symptoms and effects, both acute and delayed May be fatal if swallowed and enters airways. 4.3 Indication of any immediate medical attention and special treatment need If swallowed or in case of vomiting, danger of entering the lungs. 	ed
SECTION 5: Firefighting measures	
 SECTION 5: Firefighting measures 5.1 Extinguishing media Suitable extinguishing agents: CO2, powder or water spray. Use foam to put out n For safety reasons unsuitable extinguishing agents: Water with full jet 5.2 Special hazards arising from the substance or mixture No further relevant i 5.3 Advice for firefighters Protective equipment: In the event of fire, self-contained breathing gear and full protective clothes are requi Additional information Separately collect contaminated fire-fighting water. It should not go down the sewage	nformation available. red.
 5.1 Extinguishing media Suitable extinguishing agents: CO2, powder or water spray. Use foam to put out n For safety reasons unsuitable extinguishing agents: Water with full jet 5.2 Special hazards arising from the substance or mixture No further relevant i 5.3 Advice for firefighters Protective equipment: In the event of fire, self-contained breathing gear and full protective clothes are requi Additional information Separately collect contaminated fire-fighting water. It should not go down the sewage	nformation available. red.
 5.1 Extinguishing media Suitable extinguishing agents: CO2, powder or water spray. Use foam to put out n For safety reasons unsuitable extinguishing agents: Water with full jet 5.2 Special hazards arising from the substance or mixture No further relevant i 5.3 Advice for firefighters Protective equipment: In the event of fire, self-contained breathing gear and full protective clothes are requi Additional information 	nformation available. red. line.

LAVA 20 VERTICAL Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

7.1 Precautions for safe handling Avoid skin, eye, and clothing contamination. Carefully open and handle the container. Handle carefully. Avoid collision, abrasion, and shaking. Information about fire - and explosion protection: Avoid smoking and keep all combustible materials away. Safeguard against electrostatic charges. Never spray anything to an incandescent or a bare flame. Empty containers may generate flammable gas-air mixtures. Store it in a dry, cold, well-ventilated location, away from heat, fires, ignition, and direct sunlight, 7.2 Conditions for safe storage, including any incompatibilities Storage: Store in cool, dry conditions in well sealed receptacles. Requirements to be met by storerooms and receptacles: Retain in a cold environment. Store far from combustible materials Receptacles should be ventilated. Further information about storage conditions: Preserve the container tightly locked. Safeguard against high temperatures and sunlight. 7.3 Specific end use(s) No further relevant information available. SECTION 8: Exposure controls/personal protection 8.1 Control parameters Ingredients with limit values that require monitoring at the workplace: CAS: 28553-12-0 diisononyl phthalate

Version number 5 (replaces version 4)

WEL (Great Britain) Long-term value: 5 mg/m3

CAS: 13463-67-7 titanium dioxide

WEL (Great Britain) Long-term value: 10* 4** mg/m³ *total inhalable **respirable

CAS: 26471-62-5 m-tolylidene diisocyanate

WEL (Great Britain) Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³ Sen; as -NCO

DNELS

ETHYLBENZOLE REACTION MIXTURE, m-Xylol and p-Xylol.

DNEL Workers:

Inhalation - Intensive systemic effect = 289 mg / m 3

(Contd. on page 6)

Revision: 04.10.2021

Trade name: LAVA 20 VERTICAL

6.4 Reference to other sections:

For details on safe handling, see Section 7.

For details on disposal, see Section 13.

SECTION 7: Handling & storage

For details on personal protective equipment, see Section 8.

Printing date 04.10.2021

(Contd. of page 4)

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Printing date 04.10.2	21	Version number 5 (replaces version 4)	Revision: 04.10.2021
rade name: LAVA	0 VERTIC	CAL	
Landson da est	S	(3) (3) (3)	(Contd. of page 5
		effect = 77 mg / m 3	
Skin - Chronic syst	emic effect	= 180 mg / kg	
DUEL C			
DNEL Consumers		$a_{1} = 1.6 ma/ka$	
Mouth - Chronic s		c = 1.6 mg / kg c effect = 174 mg / m 3	
		effect = $14.8 \text{ mg}/\text{m}/\text{s}$	
Skin - Chronic syst			
PNECs			
	REACTIO	N MIXTURE, m-Xylol and p-Xylol.	
PNEC:			
in fresh water 0.32			
in marine water 0,2		1	
for sediment in fre			
for sediment in ma			
for water, intermitt for STP 6.58 mg /			
for the terrestrial a			
8.2 Exposure cont			
Individual protec General protectiv		res, such as personal protective equipment enic measures:	
Avoid food, drink,			
Prior to breaks and			
Keep your hands a			
	· · · · · · · · · · · · · · · · · · ·	noking while using the product.	
Avoid inhaling mis	ts or vapor	5.	
Respiratory prote	ction:		
protec labor,	ion is nece charcoal f	uate ventilation, use an appropriate respiratory prote ssary while spraying and in poorly ventilated work s ilter and particle filter A2-P2 (EN529) combination	paces. For brief durations of
advise Hand protection	1.		
manu protection			
Protectiv	e gloves re	sistant to chemicals (standard EN 374-1)	
No advice for the g of studies.	love mater	es must be waterproof and resistant to the product, s ial for the product, preparation, or chemical mixture	can be made due to a lack
		ile taking the degradation, diffusion, and penetration	rates into account
Material of gloves			
		g the product at room temperature:	
		$0,5$ mm; breakthrough time ≥ 480 min.	
		ckness ≥0,4mm; breakthrough time ≥480min. ed gloves should be disposed of	

Recommendation: contaminated gloves should be disposed of.

The material used for the gloves must be waterproof and resistant to the product, substance, or preparation. No advice for the glove material for the product, preparation, or chemical mixture can be made due to a lack of studies. Choose the glove material while taking the degradation, diffusion, and penetration rates into account

LAVA 20 VERTICAL Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Printing date 04.10.2021 Version number 5 (replaces version 4) Revision: 04.10.2021 Trade name: LAVA 20 VERTICAL (Contd. of page 6) Penetration time of glove material The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended. **Eve/face** protection Safety glasses with side-shields (frame goggles) (e.g. EN 166) **Body protection:** Chemically resistant, protective work clothing (EN 14605) and boots. SECTION 9: Physical & chemical properties 9.1 Information on basic physical and chemical properties **General Information** Physical state Viscous liquid Colour: Various colours Odour: Light Not determined **Odour threshold:** Melting point/freezing point: Not determined Not applicable Flammability Lower and upper explosion limit Lower: Not determined Upper: Not determined Flash point: 31 °C (ASTM D93) Product is not selfigniting. Auto-ignition temperature: Not determined **Decomposition temperature:** pH Not determined **Kinematic viscosity** 6000 mPas **Dynamic:** Not determined Solubility Not miscible water: Partition coefficient n-octanol/water (log value) Not determined Vapour pressure: Not determined Density and/or relative density Density at 20 °C: 1.34-1.35 g/cm3 **Relative density** Not determined Vapour density Not determined 9.2 Other information Appearance: Form: Viscous liquid Important information on protection of health and environment, and on safety. 488 °C Auto-ignition temperature: (Contd. on page 8)

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Printing date 04.10.2021

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Trade name: LAVA 20 VERTICAL

	(Contd. of page
Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Solvent separation test:	<1 % (UN Part III, par. 32.5.1)
Solvent content:	
VOC (EC)	262 g/l
Cloud point / clarification point:	
Oxidising properties	Not considered as oxidising.
Evaporation rate	Not determined
Information with regard to physical hazard	classes
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	
Flammable liquid and vapour.	
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flamm	able
gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

SECTION 10: Stability & reactivity

10.1 Reactivity Stable under normal conditions

10.2 Chemical stability Material is stable under normal conditions.

Thermal decomposition / conditions to be avoided

To avoid thermal decomposition do not overheat.

Stable at environment temperature.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid Avoid heat, sparkles, naked flame or other sources of ignition.

10.5 Incompatible materials No further relevant information available.

10.6 Hazardous decomposition products No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 Acute toxicity Based on available data, the classification criteria are not met.

(Contd. on page 9)

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

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Revision: 04.10.2021

Trade name: LAVA 20 VERTICAL

ATE (Acu	te Toxicity Estimates)	
Dermal	LD50	6,425 mg/kg
Inhalative	LC50/4 h (vapour)	28.1 mg/l
Reaction	mass of ethylbenzene and	m-xylene and p-xylene
Oral	LD50	4,300 mg/kg (rat)
Inhalative	LC50 (4h)	5,000 ppm (rat)
		5,000 ppm (rabbit)
CAS: 264	71-62-5 m-tolylidene diiso	cyanate
Oral	LD50	4,130 mg/kg (rat)
Dermal	LD50	>9,400 mg/kg (rabbit)
CAS: 643	59-81-5 4,5-dichloro-2-oct	yl-2H-isothiazol-3-one
Oral	LD50	567 mg/kg (ATE)
1		
Skin corre Serious ey Respirato Inhalation		a irritation. Is serious eye irritation. Illergies, asthma, or breathing problems.
Skin corre Serious ey Respirato Inhalation Might rest Germ cell Carcinoge Reproduc STOT-sin STOT-rep STOT Rep May cause Aspiration Additiona	osion/irritation Causes skin re damage/irritation Causes ry or skin sensitisation may result in symptoms of a alt in an allergic skin condition mutagenicity Based on avail enicity Based on available d tive toxicity Based on avail gle exposure Based on avail peated exposure beated Exposure Category 2 damage to organs through	allergies, asthma, or breathing problems. on. ailable data, the classification criteria are not met. lata, the classification criteria are not met. lable data, the classification criteria are not met.
Skin corre Serious ey Respirato Inhalation Might resu Germ cell Carcinoge Reproduc STOT-sin STOT-rep STOT Rep May cause Aspiration Additional Sensitisati 11.2 Infor	osion/irritation Causes skin re damage/irritation Causes ry or skin sensitisation may result in symptoms of a alt in an allergic skin condition mutagenicity Based on available d tive toxicity Based on available d tive toxicity Based on available gle exposure Based on avail gle exposure Based on avail beated exposure beated Exposure Category 2 c damage to organs through in hazard Based on available d toxicological information ion Sensitization possible th mation on other hazards	allergies, asthma, or breathing problems. on. ailable data, the classification criteria are not met. lata, the classification criteria are not met. lable data, the classification criteria are not met.
Skin corre Serious ey Respirato Inhalation Might rest Germ cell Carcinoge Reproduc STOT-sin STOT-rep STOT Rep May cause Aspiration Additiona Sensitisat 11.2 Infor Endocrine	osion/irritation Causes skin re damage/irritation Causes ry or skin sensitisation may result in symptoms of a alt in an allergic skin condition mutagenicity Based on available d tive toxicity Based on avail gle exposure Based on avail gle exposure Based on avail peated exposure cated Exposure Category 2 a damage to organs through n hazard Based on available it toxicological information ion Sensitization possible th	allergies, asthma, or breathing problems. on. ailable data, the classification criteria are not met. lata, the classification criteria are not met. lable data, the classification criteria are not met.

Aquatic toxicity:

CAS: 26471-62-5 m-tolylidene diisocyanate

EC50 (48h) 12.5 mg/l (daphnia magna)

LC50 (96h) 133 mg/l (Oncorhynchus mykiss)

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

(Contd. on page 10)

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Printing date 04.10.2021

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Revision: 04.10.2021 Version number 5 (replaces version 4) Trade name: LAVA 20 VERTICAL (Contd. of page 9) 12.5 Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable. 12.6 Endocrine disrupting properties For information on endocrine disrupting properties see section 11. 12.7 Other adverse effects Remark: Harmful to fish Additional ecological information: **General notes:** Do not let undiluted products or substantial quantities of them into sewage systems, water courses, or groundwater. Environmentally hazardous components are present in the product. Detrimental to aquatic life

SECTION 13: Disposal considerations

13.1 Waste treatment methods Recommendation



Dispose according to National Regulations.



Not to be disposed of with regular trash. Do not let product enter the drainage system.

Contact manufacturer for recycling information.

Uncleaned packaging:

Recommendation:

Official guidelines must be followed while disposing of materials. After cleaning, packaging can be recycled or used again.

SECTION 14: Transport information

14.1 UN number or ID number ADR, IMDG, IATA	UN1866
14.2 UN proper shipping name ADR IMDG, IATA	1866 RESIN SOLUTION RESIN SOLUTION
14.3 Transport hazard class(es) ADR, IMDG, IATA	
Class	3 Flammable liquids.
Label	3
	(Contd. on page

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Printing date 04.10.2021 Version number	5 (replaces version 4)	Revision: 04.10.202
Frade name: LAVA 20 VERTICAL		
		(Contd. of page 10
14.4 Packing group ADR, IMDG, IATA	ш	
14.5 Environmental hazards: Marine pollutant:	No	
14.6 Special precautions for user Hazard identification number (Kemler code): EMS Number: Stowage Category	Warning: Flammable liquids. 30 F-E,S-E A	
14.7 Maritime transport in bulk according to IM instruments	O Not applicable.	
Transport/Additional information:		
ADR		
Limited quantities (LQ)	5L	
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inno Maximum net quantity per outo	
Transport category	3	1 0 0
Tunnel restriction code	D/E	
IMDG		
Limited quantities (LQ)	5L	
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inne Maximum net quantity per oute	
UN "Model Regulation":	UN 1866 RESIN SOLUTION,	3, 111

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture REACH Regulation 1907/2006/EC Regulation (EU) 2020/878 CLP Regulation 1272/2008/EC

Directive 98/24/EC on safeguarding employees' health and safety against hazards posed by chemical agents at work.

Youth protection at work: amended version of Council Directive 94/33/EC.

The amended version of Directive 92/85/EEC on the adoption of measures to promote advancements in the safety and health at work of pregnant employees, new mothers, and nursing employees

Directive 2012/18/EU

Named dangerous substances - ANNEX I Substance is not listed.

Seveso category P5c FLAMMABLE LIQUIDS

Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000 t

Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000 t

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 52a, 74

(Contd. on page 12)

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Printing date 04.10.2021

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Trade name: LAVA 20 VERTICAL

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National regulations:

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57

It doesn't contain substances of very high concern (SVHC).

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on what we know right now. This, however, does not create a legally binding business relationship or a guarantee for any particular product characteristics.

Relevant phrases

H226 Flammable liquid and vapour.

- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H330 Fatal if inhaled.
- H332 Harmful if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 May cause respiratory irritation.
- H351 Suspected of causing cancer.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- EUH204 Contains isocyanates. May produce an allergic reaction.

Training hints

On the basis of all the available knowledge, the staff should receive the proper training about safety when handling, storing, and converting the product.

Version number of previous version: 4

Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)
- DNEL: Derived No-Effect Level (REACH)
- PNEC: Predicted No-Effect Concentration (REACH)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic SVHC: Substances of Very High Concern
- vPvB: very Persistent and very Bioaccumulative

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LAVA 20 VERTICAL

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Printing date 04.10.2021

Version number 5 (replaces version 4)

Revision: 04.10.2021

Trade name: LAVA 20 VERTICAL

(Contd. of page 12) Flam. Liq. 3: Flammable liquids - Category 3 Acute Tox. 4: Acute toxicity - Category 4 Acute Tox. 2: Acute toxicity - Category 2 Skin Corr. 1: Skin corrosion/irritation - Category I Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Dam. 1: Serious eye damage/eye irritation - Category | Eye Irrit. 2: Serious eye damage/eye irritation - Category 2 Resp. Sens. 1: Respiratory sensitisation - Category 1 Skin Sens. 1: Skin sensitisation - Category 1 Skin Sens. 1A: Skin sensitisation - Category 1A Carc. 2: Carcinogenicity - Category 2 STOT SE 3: Specific target organ toxicity (single exposure) - Category 3 STOT RE 2: Specific target organ toxicity (repeated exposure) - Category 2 Asp. Tox. 1: Aspiration hazard - Category 1 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3 * Data compared to the previous version altered.

Lava 20 Eco (Solvent free - low VOC) quick step by step guide

Step. 1. ensure the surface is clean and dry

Step. 2. Full any joints holes or voids with Owl PU mastic

Step. 3. Prime the entire area with Lava 20 Primer eco

Step. 4. Apply the Lava 20 Eco liquid rubber system with reinforcement tape / matting as required, if using matting or tape apply another layer of Lava 20 Eco on top.

Step. 5. (Optional / recommended) apply any colour top coat coat for a hard / scratch resistant finish with an even longer life or use any colour Lava 20 Top Coat Eco with quartz for an anti slip finish.



Application Specification:

(Asphalt / Torched Down Felt / BUR) (Metal/Steel) June 2022

LAVA 20 ECO POLYURETHANE ELASTOMERIC COATING SYSTEM FOR ROLLER APPLICATION ON Asphalt / Torched Down Felt / BUR Metal / Steel

PART 1 - GENERAL

1.1 SUMMARY

This section describes the requirements for installing a liquid applied waterproofing, wear surface for deck surfaces over occupied space. Its intended use is suitable for residential and commercial foot traffic, patio furniture and similar equipment.

1.2 RELATED SECTIONS

- A. Cast-In-Place Concrete: Division 03 30 00
- B. Flashing and Sheet Metal: Division 07 60 00
- C. Drains, Vents, and Penetrations: Division 22 14 26.13

1.3 SUBMITTALS

A. Product Data: Submit manufacturer's standard submittal package including specification, installation instructions, and general information for each waterproofing material.

B. Americans with Disabilities Act (ADA) Recommendations: Prior to installation, submit manufacturer's data indicating that the specified waterproofing application conforms to the provisions of the ADA Accessibility Guidelines as published by the US Access Board, 1331 F Street, NW, Suite 1000, Washington, DC 20004-1111.

C. The static coefficient shall exceed the minimum recommendations of the American Disability Act (ADA), for accessible routes, for wet and dry surfaces, and for leather and rubber heel materials.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store all coating materials in the original unopened containers at 50 to 80 °F (10 to 27 °C) till coating is ready for use.
- B. Follow the special handling or storage requirements of the manufacturer for cold weather, hot weather, etc.
- C. Safety: Refer to all applicable data, including, but not limited to MSDS, PDS, product labels, specific instructions for specific personal protection requirements.

Page 2

D. Environmental requirements: Proceed with work of this section only when existing and forecasted weather conditions will permit the application to be performed in accordance with the manufacturer's recommendations.

1.6 JOB CONDITIONS

- A. Safety: Refer to all applicable data, including, but not limited to SDS, PDS, product labels and specific instructions for specific personal protection requirements.
- B. Weather: Proceed with the work of this section only when existing and forecasted weather conditions will permit the application to be performed in accordance with the manufacturer's recommendations.

1.7 WARRANTY

A 25-year warranty is available for commercial & domestic projects.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

Acceptable Manufacturers: OWL WATERPROOFING SOLUTIONS - www.owlwaterproofing.co.uk

2.2 MATERIALS

- A. Primer: Lava Prime Eco
- B. Polyurethane Base Coating: Lava 20 Eco
- C. Polyurethane Top Coating: Lava Topcoat Eco
- D. Flashing and Joint Reinforcing Fabric: Polyester Tape or chop strand matting as required for flashing drains, base angles, etc.
- E. Misc. Accessories: All items incorporated into this system shall be compatible with and approved by the coating manufacturer.

NOTE: Allow additional material for rough or irregular surfaces. Consult OWL Technical Service for further inquiries.

3.1 EXAMINATION

- A. Asphalt needs to be clean from any loose particles, moss, algae growth, etc. Surface needs to be fully dry before the application. Do not apply Owl Waterproofing products over asphalt or asphalt products that have not aged for a minimum of 180 days. Coating over uncured (not aged) asphalt products will cause staining and/or blistering of the Lava 20 Eco. Full reinforcement will be required using the Glass fiber (Chop Stand Matting) or Polyester Fabric
- **B.** Surface needs to be clean and dry any rust needs to be treated.

3.2 PREPARATION

- A. Clean substrate to remove all surface contaminants.
- B. Mask off all adjoining areas that are not to receive the fluid applied waterproofing.
- **C.** Provide a suitable workstation to mix the coating materials.

3.3 INSTALLATION

A. Existing Bitumen Based Materials (Asphalt / Torched Down Felt / BUR)

Asphalt needs to be clean from any loose particles, moss, algae growth, etc.

Surface needs to be fully dry before the application. Do not apply Owl Waterproofing products over asphalt or asphalt products that have not aged for a minimum of 180 days. Coating over uncured (not aged) asphalt products will cause staining and/or blistering of the Lava 20 Eco. Full reinforcement will be required using the Glass fiber (Chop Stand Matting)

Application.

Step 1. Fill and smooth any crack or voids with the Owl PU Mastic

Step 2. Prime the whole area with Lava Prime Eco at a rate of one gallon per 203 sq ft² & allow the dry for 2 -3 hours Step 3. Apply Lava 20 Eco over a section of the area then reinforce the area by embedding the Chop Strand Matting or Polyester Fabric into the wet coating, then apply more Lava 20 Eco to complete the waterproofing system. Coverage 0.074 gallon per sq ft²

Step 4. (Optional) Apply the Lava Topcoat over the entire area coverage 1 gallon per 215 sq ft²

B. Metal/Steel

Surface needs to be clean and dry; any rust needs to be treated before Lava Prime Eco

Application.

Step 1. Fill and smooth any crack or voids with the Owl PU Mastic

Step 2. Prime the whole area with Lava Prime Eco at a rate of one gallon per 203 sq ft² & allow the dry for 2 -3 hours Step 3. Reinforce all joints using the polyester fabric tape. Apply Lava 20 Eco over the joint then cut your tape to size place the tape over the joint, then apply more Lava 20 Eco to embed the tape.

Step 4. Simply coat the whole area with Lava 20 Eco at a rate of 0.074 gallon per sq ft²

Step 5. (Optional) Apply the Lava Topcoat over the entire area coverage 1 gallon per 215 sq ft²



Application Specification:

(Plywood/Concrete) June 2022

LAVA 20 ECO POLYURETHANE ELASTOMERIC COATING SYSTEM FOR ROLLER APPLICATION ON PLYWOOD AND CONCRETE DECKS

PART 1 - GENERAL

1.1 SUMMARY

This section describes the requirements for installing a liquid applied waterproofing, wear surface for deck surfaces over occupied space. Its intended use is suitable for residential and commercial foot traffic, patio furniture and similar equipment.

1.2 RELATED SECTIONS

- A. Cast-In-Place Concrete: Division 03 30 00
- B. Flashing and Sheet Metal: Division 07 60 00
- C. Drains, Vents, and Penetrations: Division 22 14 26.13

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's standard submittal package including specification, installation instructions, and general information for each waterproofing material.
- B. Americans with Disabilities Act (ADA) Recommendations: Prior to installation, submit manufacturer's data indicating that the specified waterproofing application conforms to the provisions of the ADA Accessibility Guidelines as published by the US Access Board, 1331 F Street, NW, Suite 1000, Washington, DC 20004-1111.

C. The static coefficient shall exceed the minimum recommendations of the American Disability Act (ADA), for accessible routes, for wet and dry surfaces, and for leather and rubber heel materials.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store all coating materials in the original unopened containers at 50 to 80 °F (10 to 27 °C) till coating is ready for use.
- B. Follow the special handling or storage requirements of the manufacturer for cold weather, hot weather, etc.
- C. Safety: Refer to all applicable data, including, but not limited to MSDS, PDS, product labels, specific instructions for specific personal protection requirements.
- D. Environmental requirements: Proceed with work of this section only when existing and forecasted weather conditions will permit the application to be performed in accordance with the manufacturer's recommendations.

Page 2

1.6 JOB CONDITIONS

- A. Safety: Refer to all applicable data, including, but not limited to SDS, PDS, product labels and specific instructions for specific personal protection requirements.
- B. Weather: Proceed with the work of this section only when existing and forecasted weather conditions will permit the application to be performed in accordance with the manufacturer's recommendations.

1.7 WARRANTY

A 25-year warranty is available for commercial & domestic projects.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

Acceptable Manufacturers: OWL WATERPROOFING SOLUTIONS - www.owlwaterproofing.co.uk

2.2 MATERIALS

- A. Primer: Lava Prime Eco
- B. Polyurethane Base Coating: Lava 20 Eco
- C. Polyurethane Top Coating: Lava Topcoat Eco
- D. Flashing and Joint Reinforcing Fabric: Polyester Tape or chop strand matting as required for flashing drains, base angles, etc.
- E. Misc. Accessories: All items incorporated into this system shall be compatible with and approved by the coating manufacturer.

NOTE: Allow additional material for rough or irregular surfaces. Consult OWL Technical Service for further inquiries.

3.1 EXAMINATION

- A. Verify substrate is ready to receive work; surface is clean, dry and free of substances that could affect the bond.
- B. Verify that the plywood / OSB shall conform to U.S. DOC PS 1 or CSA 0325 and shall carry the grade trademark of the Engineered Wood Association - APA AB EXT or APA AC EXT are acceptable. Underlayment grade plywood (APA AC EXT Underlayment) with solid, plugged cross bands under the face veneer is recommended for commercial installations.
- C. Unacceptable Grades: APA C-D EXT, APA C-C EXT, Exposure 1 markings, oriented strand board (OSB), waferboard and Lauan or Mahogany plywood are NOT suitable substrates for liquid-applied coating systems. This is due to poor dimensional stability, weak glue lines which allow buckling or lifting of the top ply, and excessive splintered, leafed and raised surface grain.
- D. Do not begin the work until the concrete substrate has cured 28 days and/or has achieved a moisture content of no greater than 12%.
- E. Ensure the substrate condition is clean and dry and ready to receive the waterproofing application.

Page 3

3.2 PREPARATION

- A. Clean substrate to remove all surface contaminants.
- B. Mask off all adjoining areas that are not to receive the fluid applied waterproofing.
- C. Provide a suitable workstation to mix the coating materials.

3.3 INSTALLATION

A. Concrete

New concrete shall have cured a minimum of 28 days. New or existing concrete shall be free of oil, grease, curing compounds, loose particles, moss, algae growth, laitance, friable matter, dirt, bituminous products, and previous waterproofing materials. New or existing concrete shall be dry.

Application Process

Step 1. Fill and smooth any crack or voids with the Owl PU Mastic

- Step 2. Prime the whole area with Lava Prime Eco at a rate of one gallon per 203 sq ft & allow the dry for 2 -3 hours
- Step 3. Simply coat the whole area with Lava 20 Eco at a rate of 0.074 gallon PER sq ft
- Step 4. (Optional) Apply the Lava Topcoat over the entire area coverage 1 gallon per 215 sq ft

B. Wood / Plywood

New or existing wood / plywood shall be dry with a maximum moisture content of (5%) five percent. Coating over wet components will adversely affect the adhesion of the Lava 20 Eco coatings.

Application Process

Step 1. Fill and smooth any crack or voids with the Owl PU Mastic

Step 2. Prime the whole area with Lava Prime Eco at a rate of one gallon per 203 sq ft & allow the dry for 2 -3 hours **Step 3**. Reinforce all joints using the polyester fabric tape. Apply Lava 20 Eco over the joint then cut your tape to size

place the tape over the joint, then apply more Lava 20 Eco to embed the tape.

Step 4. Simply coat the whole area with Lava 20 Eco at a rate of 0.074 gallon per sq ft

Step 5. (Optional) Apply the Lava Topcoat over the entire area coverage 1 gallon per 215 sq ft



Lava 20 Eco

Water Based Polyurethane Waterproofing System

TECHNICAL DATA SHEET Date: 15.09.2022

Product description

Advantages

Lava 20 Eco is a fluid applied, highly flexible, cold applied and cold curing, water based, single component, PU based waterproofing used for high performance waterproofing with a long life expectancy.

The Lava 20 Eco is made up of high quality elastic, water-based urethane resins.

Flat Roofs or Low Pitched Roofs etc.

Waterproofing & Sealing applications

Waterproofing of Rooftops, Flat Roofs.

Balconies, Valleys and Terraces etc
Protection of PU Spray Foam Insulation

BUR, felt, concrete, asphalt, insulation,

cement boards, timber (OSB), plywood, metals etc.

Lava 20 Eco gives you a hydrophobic, 100% waterproof layer which is both seamless and flexible and can expand and contract throughout various weather conditions. Lava 20 Eco can be used over new or exisitng surfaces and can be applied to many kinds of substrates to provide effective long term protection.

Simple application (roller or airless spray).
Water Based.

- When applied forms seamless membrane without joints.
- Provides high levels of crack bridging.
- Maintains its mechanical properties over a temperature span of -40°C to +90°C.
- · Provides water vapor permeability.
 - Full surface adherence without any additional anchoring.
- · The waterproofed surface can be walked on.
- Even if the membrane gets damaged, it can be easily repaired locally within minutes.
- In combination with top coat eco it offers long-lasting durability against UV and abrasion
- · Low VOC content 50 g/l

Uses

Quantity application rate

1. 4-2 k g per m² can be applied in two or three layers or in one application wet on wet with reinforcement fabric. This coverage rate is given on the basis of a roller, spray or brush application in average or good substrate conditions. Conditions such as substrate porosity, climate and installation technique can change consumption rates.

Colors The Lava 20 Eco system comes in white & light Grey

Technical data*		
PROPERTY	RESULTS	TEST METHOD
Tensile Strength at 2 0 ° C	> 5 , 5 N / mm2	ASTMD412
Elongation at Break at 20°C	> 350%	ASTMD412
Resistance to Water Pressure	No Leak (1m water column, 24h)	DINEN1928
Adhesion on surfaces (with primer)	>1 . 5 N / m m ² failure)	EN1542
Hardness (Shore A Scale)	65	ASTMD2240(15")
Light Pedestrian Traffic Time 1.9, 2.4 hours		Conditions: 20 ° C, 5 0 % R H
Final Curing time (ponding test)	10 days	Conditions. 20 °C, 5 0 % R H
VOC	50 g/l	



Installation Process

The surface needs to be structurally sound, clean & dry. The substrate moisture content should be over 8 %. New concretestructures need to dry for at least 28 days. Old, loose coatings, dirt, fats or oils need to be cleaned with alkaline cleaner or by agrinding machine.

Repairing voids, cracks or joints etc:

The careful sealing of existing cracks and joints before the application is extremely important for long lasting waterproofing results. This can be done with Owl PU mastic or Lava 20 Eco and Fabric Tape / mesh.

- Fill any voids with Owl PU mastic

- Apply a layer over Lava 20 Eco over the area and then embed the fabric tape fully saturating the cloth, then apply another layer of Lava 20 Eco over the area to complete the repair.

Priming

Use Lava Eco Primer over the entire surface (ensuring its clean and dry prior to use) & allow the primer to cure according its technical instruction.

Lava 20 Eco - Waterproofing Application

Mix thoroughly before use. Lay Lava 20 Eco on the surface once the primer has cured and spread it by roller, brush or squeegee over the entire area, alternatively you can use a spray pump.

Note: Always add reinforcement fabric on weak or problematic areas, like wall-floor junctions, pipes, outlets and around skylights etc.

To reinforce these areas; simply apply Lava 20 Eco over the area and then lay the reinforcement fabric over the Lava 20 Eco followed by more Lava 20 Eco to complete the reinforcement.

Lava 20 Eco can be used unreinforced over some surfaces such as metal, concrete and timber etc (with local reinforcement on joints etc) however for extra durable results you can install full reinforcement over the entire substrate and on some surfaces such as bitumen torch down felt and asphalt we recommend full reinforcement for extra strength.

You can apply another lay (wet on wet) over the Lava 20 Eco and the reinforcement fabric or you can leave the second coat for 18 - 24 hours and you can apply another layer of the Lava 20 Eco to complete the Lava 20 Eco application.

<u>Note:</u> Only apply Lava 20 Eco in temperatures above 5°C should be between 5°C. Low temperatures slow cure times and higher temperatures speeds up cure times.

Finishing (optional)

If a color stable, chalk free and hard wearing, durable, impact resistant surface is desired, apply one or two layers of the Lava Top-Coat Eco over Lava 20 Eco. The Lava Top Coat Eco is optional and if applied will extend the life of the system indefinitly.

Packaging

Lava 20 Eco pails should be stored in dry and cool rooms for up to 15 months. Protect the material against moisture and direct sunlight. Storage temperature: 5 °- 3 0 °C. Products should be stored in a cool & dry place in their unopened containers, bearing the manufacturers name, product description, batch number and warning labels.

Safety measures

Keep away from children. See data supplied by the manufacturer.

Keep out of reach from children. See information supplied by the manufacturer. FOR PROFESSIONAL USE ONLY. We are liable only for our products being free from defects and the correct installation of the materials is the installers liability and responsibility.



LAVA TOP COAT ECO

Durable Water Based Polyurethane Top-Coat, UVstable

Summary

The LAVA TOP COAT ECO is a water bourne, coloured, durable, flexible, UV-stable, weather resistant, single component, aliphatic polyurethane coating used as a top-coat for protection over water based waterproofing membranes, subject to wear and weathering conditions. The LAVA SILVER TOP COAT consists of flexible, water-based polyurethane resins (dispersion).

When the LAVA TOP COAT ECO is applied, it forms a hydrophobic, 100% waterproof, seamless, polyurethane coating, that protects the Lava 20 Eco waterproofing first layer on a long-term basis and prevents degradation.

Uses

Used over the OWL LAVA waterproofing membranes for: • Waterproofing Rooftops / balconies / valleys /

- terraces.
 Waterproofing & UV Protection of PU Foam Insulations.
- Waterproofing of most surfaces exposed to wear and weathering conditions as concrete protection system.

Used over the LAVA 20 ECO on surfaces, with domestic pedestrian traffic (e.g. Roofs, Terraces, Residential Walkways) that need a durable gloss finish.

Benefits

- · Simple application (brush, roller or airless spray).
- Water Based
- Durable and impact resistant.
- · Non yellowing & Color stable.
- Provides an easy to maintain finish.
- Doesn't fade or degrade by chalking effect of aromatic polyurethane waterproof materials.
- Performs in temperature ranges from -30°C to +80°C.
 - Low VOC content <100 grams per liter (actual: 50 grams per liter)
- · Resistant to frost and thermal shock

Quantity Rate

0.2-0.4 kg per m² applied in one or two coats. Coverage rate is based on a standard roller application on a smooth surface in good conditions. Factors such as substrate conditions, climate and application method can change consumption.

Colors

The LAVA TOP COAT ECO is supplied in white, light grey, brown & red. Other RAL colors can be manufactured & supplied on request.

TECHNICAL DATA SHEET Date: 15.01.2022



Technical data PROPERTY RESULTS TEST METHOD Elonaation to Break (at 2 0° C) >250 % ASTMD412 ASTMD412 Tensile Strenath (at 2 0° C) >10 N/mm UV Stability (2000 h) excellent ASTMG154 Resistance to Water Pressure No Leak (1 m water column, 24 h) DINEN1928 Adhesion on surfaces (primed) >2 N/mm A S T M D 1 5 4 2 Hardness (Shore A Scale) ASTMD2240(15") 65 Rain Stability Time 4 hours Conditions: 20 ° C , 50 % R H Liaht Pedestrian Traffic Time 18 to 24 hours Final Curina time (pondina test) 10 days voe 50 g/1

Installation Process

Substrate Preparation

The surface needs to be structurally sound, clean & dry. The substrate moisture content should be over 8 %. New concrete structures need to dry for at least 28 days. Old, loose coatings, dirt, fats or oils <u>need to be cleaned with alkaline cleaner or by a grinding machine.</u>

Top-Coat

Stir well before using. Apply the Lava 20 ECO Top Coat over Lava 20 ECO waterproofing membrane by roller, brush or airless spray in one or two layers.

To apply a second coat (with quartz etc) wait for 3 - 6 hours to cure and apply again.

Note: Only apply the Lava Top Coat Eco in temperatures above 5°C.

Shelf Life

Lava Top Coat Eco pails should be stored in a cool dry place and out of direct sunlight and can be stored to 15 months. Materials should be unopened & contain the manufacturers name, product description, batch number & warning labels.

Safety measures

Keep out of reach from children. See information supplied by the manufacturer. FOR PROFESSIONAL USE ONLY.

We are liable only for our products being free from defects and the correct installation of the materials is the installers liability and responsibility



Lava 20 Primer Eco

TECHNICAL DATA SHEET

Polyurethane Primer, Water-based

Product Description

Lava 20 Primer Eco is a water-based, transparent, semirigid, deep penetrating, quick drying polyurethane primer. Lava 20 Primer Eco consists of flexible, water-based polyurethane resins (dispersion).

Advantages

- · Simple application (roller or airless spray)
- Quick drying
- Deep penetrating
- Excellent anchoring to absorbent surfaces
- Heat and frost resistant
- Stops the creation of dust
- Maintains its mechanical properties over a temperature span of -30°C to +80°C.
- Low VOC content 50 g/l

PRODUCT INFORMATION

Chemical Base	Single component water-based polyurethane primer
Packaging	1/5/20 kg plastic pails
Colour	Milky-transparent
Shelf Life	18 months from date of production

Main Uses

Consumption

- Concrete
- Mortar
- Plaster
- Wood, etc.

0.200 kg/m² applied in one or two layers

This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature and application method can alter consumption.

Lava 20 Primer Eco can be used in combination with the Lava 20 Eco System (Lava 20 Eco, Lava 20 Top Coat Eco etc.)



Technical data*		
PROPERTY	RESULTS	TEST METHOD
Adhesion to concrete	>1,5 N/mm ²	EN 1542
Hardness (SHORE A Scale)	>80	ASTM D 2240
Resistance to Water Pressure	No Leak (1m water column, 24h)	DIN EN 1928
Service Temperature	-30°C to +90°C	Inhouse lab
Water Vapor Permeability	>15 gr/m²/day	ISO 9932:91
Tack free time	90 min	
Overcoating time	3-4 hours	Conditions: 20°C, 50% RH
Final Curing time	10 days	

Certifications

EN1504-2: Surface protection for concrete. Certification of Owl Waterproofing System 0.2kg Lava 20 Primer Eco, 1.4kg Lava 20 Eco, 0.25kg Lava 20 Top Coat Eco



Application

Surface Preparation

Careful surface preparation is essential for optimum finish and durability.

The surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the membrane. Maximum moisture content should not exceed 6%. Substrate compressive strength should be at least 25MPa, cohesive bond strength at least 1.5MPa. New concrete structures need to dry for at least 28 days. Old, loose coatings, dirt, fats, oils, organic substances and dust <u>need to be removed by a grinding machine</u>. Possible surface irregularities need to be smoothened. Any loose surface pieces and grinding dust need to be thoroughly removed.

WARNING: Do not use a metal-ball blasting machine to grind the surface, because the heavy metal-ball impacts destroy the cohesion of the concrete surface and lower its stability.

Priming

For best results, the temperature during application and cure should be between 5°C and 30°C. Low temperature retards cure, while high temperature speeds up curing. High humidity may affect the final finish.

Apply Lava 20 Primer Eco by roller or brush, until the surface is covered. You can use airless spray allowing a considerable saving of manpower.

After 1-3 hours and while the primer is still a bit tacky, apply the water-based polyurethane coating.

<u>RECOMMENDATION</u>: If the surface is very brittle, like lightweight concrete or porous cement screed, apply two layers of Lava 20 Primer Eco.

Storage Conditions Lava 20 Primer Eco pails should be stored in dry and cool rooms. Protect the material against moisture and direct sunlight. Storage temperature: 5°-35°C. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

PROTECT FROM FROST

Safety measures

Keep away from children. Do not use empty containers for food storage. See information supplied by the manufacturer. Please study the Safety Data Sheet.

PROFESSIONAL USE ONLY

Our technical advice for use, whether verbal or written, is given in good faith and reflect the current level of knowledge and experience with our products. When using our products, a detailed object-related and qualified inspection is required in each individual case in order to determine whether the product and /or application technology in question meets the specific requirements and purposes. We may guarantee only that our products are compliant with their technical specification; correct application of our products therefore falls entirely within your scope of liability and Users are responsible, in any case, for complying with local legislation and for obtaining any required approvals or authorizations, when necessary, either for their purchase and/or for their use. Values in this technical data sheet are given as examples and may not be regarded as specifications. For product specifications contact our R+D department. The new edition of the technical data sheet supersedes the previous technical information and renders it invalid. It is therefore necessary that you always have to hand the current code of practice.

* All values represent typical values and are not part of the product specification. The applied primer might yellow and/or fade upon UV exposure.



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Safety Data Sheet According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

SECTION 1: Identification	of the substance/mixture and of the company /unde	ertaking
1.1 Product identifier		
Trade name: LAVA 20 PR	IMER ECO	
No further relevant informa	es of the substance or mixture and uses advised aga ation available. ace / the mixture: Waterproofing coating	iinst
1.3 Details of the supplier Manufacturer/Supplier: OWL WATERPROOFING 135 Slaney Road, Dublin Ind Glasnevin, Dublin 11 Tel: +353 01 830 2250 Email: info@owlwaterproofi Website: www.owlwaterproof 1.4 Emergency telephone	SOLUTIONS ustrial Estate ng.co.uk fing.co.uk	
2.2 Label elements Labelling according to Re Hazard pictograms: Void	gulation EC No 1272/2008 CLP: Void	
Signal word: Void		
Hazard statements: Void 2.3 Other hazards Results of PBT and vPvB PBT: Not applicable.	assessment	
vPvB: Not applicable.		
SECTION 3: Composition	information on ingredients	
according to Reg. (EU) 202	ances that either not classified or not required to be sta 0/878. gulation (EU) 2020/878: Void	ated in the Safety Data Sho
		(Contd. on pag

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Printing date 13.10.2021

Version number 3 (replaces version 2)

Revision: 13.10.2021

Trade name: LAVA 20 PRIMER ECO

(Contd. of page 1)

	aid measures
	first aid measures
General informat	
	ople adequate ventilation.
Seek emergency m	edical attention.
After inhalation:	
	es unconscious, secure him in a side position for transportation.
	e artificial respiratory support if necessary. Keep the patient warm.
If symptoms last, so	
After skin contact	
	water immediately, then thoroughly rinse.
	kin irritation persists.
After eye contact:	
	e under flowing water for a few minutes.
Safeguard the uninj	
Consult a doctor if After swallowing:	he symptoms continue.
	Fts comits factored contest amore was held right away
	If to vomit; instead, contact emergency help right away.
	ng lots of fresh air and drink. Make a doctor's appointment immediately.
Seek emergency me	
	nt symptoms and effects, both acute and delayed information available.
4.5 Indication of a	my immediate medical attention and special treatment needed
	information available.
No further relevan	information available.
No further relevan	information available.
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(Contd. on page 3)

LAVA 20 PRIMER ECO Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Printing date 13.10.2021

Version number 3 (replaces version 2)

Revision: 13.10.2021

Trade name: LAVA 20 PRIMER ECO

(Contd. of page 2)

6.2 Environmental precautions:

Keep out of ground or surface water and sewers.

Do not allow to penetrate the soil or ground.

6.3 Methods and material for containment and cleaning up:

Utilize absorbent material to collect (sand, diatomite, acid binders, universal binders, sawdust, silica gel).

Make sure there is enough airflow.

Place in appropriate containers for salvage or disposal.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling & storage

7.1 Precautions for safe handling

If used appropriately, no further safety measures are required. Make sure the workplace has adequate exhaustion and ventilation. **Information about fire - and explosion protection:**



Avoid smoking and keep all combustile materials away.

Safeguard against electrostatic charges.

7.2 Conditions for safe storage, including any incompatibilities Storage:

Requirements to be met by storerooms and receptacles:

Retain in a cold environment.

Ensure that no water seeps into the ground.

Receptacles should be ventilated.

Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from flammable substances.

Further information about storage conditions:

Maintain a firmly sealed container.

Store in tightly sealed containers in a cold, dry environment.

Safeguard against heat and sunlight.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace: The product contains no significant amounts of elements with critical values that must be checked at the workplace.

8.2 Exposure controls

Individual protection measures, such as personal protective equipment General protective and hygienic measures: Keep away from foodstuffs, beverages and feed.

(Contd. on page 4)

Safety Data Sheet

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Printing date 13.10.2021

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Trade name: LAVA 20 PRIMER ECO

(Contd. of page 3)

Prior to breaks and after work, wash your hands. Keep your hands away from your skin and eyes. Avoid inhaling mists or vapors. Protective clothes should be kept apart.

Respiratory protection:

Use a respiratory filtration device if there has been a brief exposure or little pollution. Use a self-contained respiratory protection equipment in cases of prolonged or intensive exposure.

Hand protection



Protective gloves

The material used for the gloves must be waterproof and resistant to the product, substance, or preparation. No advice for the glove material for the product, preparation, or chemical mixture can be made due to a lack of studies.

Choose the glove material while taking the degradation, diffusion, and penetration rates into account **Material of gloves**

The material used for the gloves must be waterproof and resistant to the product, substance, or preparation. No advice for the glove material for the product, preparation, or chemical mixture can be made due to a lack of studies. Choose the glove material while taking the degradation, diffusion, and penetration rates into account **Penetration time of glove material**

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended. **Eye/face protection**



Goggles recommended during refilling

Body protection:



Protective work clothing

SECTION 9: Physical & chemical properties

9.1 Information on basic physical and ch	emical properties	
General Information		
Physical state	Liquid	
Colour:	Various colours	
Odour:		
Odour threshold:	Not determined	
Melting point/freezing point:	Not determined	
Flammability	Not applicable	
Lower and upper explosion limit		
Lower:	Not determined	

(Contd. on page 5)

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its Amendment Regulation (EC) No.1272/2008 (CLP) and EU 2020/878

Printing date 13.10.2021

Version number 3 (replaces version 2)

Revision: 13.10.2021

Trade name: LAVA 20 PRIMER ECO

	(Contd. of page
Upper:	Not determined
Flash point:	Not determined
Auto-ignition temperature:	Product is not selfigniting.
Decomposition temperature:	Not determined
pH at 20 °C	8.5-10
Viscosity:	
Kinematic viscosity	Not determined
Kinematic viscosity	
Dynamic:	Not determined
Solubility	
water:	Not determined
Partition coefficient n-octanol/water (log value)	Not determined
Vapour pressure:	Not determined
Density and/or relative density	
Density at 20 °C:	1.23 g/cm ³
Relative density	Not determined
Vapour density	Not determined
9.2 Other information	
Appearance:	23.33
Form:	Liquid
Important information on protection of health an	d
environment, and on safety.	And the second
Auto-ignition temperature:	Not determined
Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Cloud point / clarification point:	
Oxidising properties	Not oxidising
Evaporation rate	Not determined
Information with regard to physical hazard classe	es
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable	
Substances and mixtures, which thin naminable	Void
	T OIG
gases in contact with water	Void
gases in contact with water Oxidising liquids	Void
gases in contact with water Oxidising liquids Oxidising solids	Void
gases in contact with water Oxidising liquids	and the second se

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Desensitised explosives

SECTION 10: Stability & reactivity

10.1 Reactivity No further relevant information available.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided Stable under normal conditions

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid Avoid heat, sparkles, naked flame or other sources of ignition.

10.5 Incompatible materials No further relevant information available.

10.6 Hazardous decomposition products No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity Based on available data, the classification criteria are not met.

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eve damage/irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT-single exposure Based on available data, the classification criteria are not met.

STOT-repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Endocrine disrupting properties For information on endocrine disrupting properties see section 11.

12.7 Other adverse effects No further relevant information available.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods Recommendation



Dispose according to National Regulations.



Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations. Packaging may be reused or recycled after cleaning.

SECTION 14: Transport information

14.1 UN number or ID number ADR, ADN, IMDG, IATA	Void	
14.2 UN proper shipping name ADR, ADN, IMDG, IATA	Void	
14.3 Transport hazard class(es) ADR, ADN, IMDG, IATA		
Class 14.4 Packing group ADR, IMDG, IATA	Void	
14.5 Environmental hazards:	Not applicable.	
14.6 Special precautions for user	Not applicable.	
14.7 Maritime transport in bulk according instruments	g to IMO Not applicable.	
UN "Model Regulation":	Void	

SECTION 15: Regulatory information

*

 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture REACH Regulation 1907/2006/EC
 Regulation (EU) 2020/878
 CLP Regulation 1272/2008/EC
 Directive 98/24/EC on the protection of health and safety of workers from the risks related to chemicals agents at work.

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The revised version of Council Directive 94/33/EC on the protection of young people at work. 92/85/EEC Directive, as modified, on the adoption of measures to promote improvements in the safety and health at work of pregnant employees, workers who have just given birth, or workers who are breastfeeding.

Directive 2012/18/EU Named dangerous substances - ANNEX I Substance is not listed.

National regulations:

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57

It doesn't contain substances of very high concern (SVHC).

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS:

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OWL WATERPROOFING SOLUTIONS 135 Slaney Road, Dublin Industrial Estate Glasnevin, Dublin 11 Tel: +353 01 830 2250 Email: info@owlwaterproofing.co.uk

Website: www.owlwaterproofing.co.uk

Version number of previous version: 2

Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative * Data compared to the previous version altered.



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SECTION 1: Identification of the substance/mixture and of the company /undertaking

1.1 Product identifier

Trade name: LAVA 20 ECO

1.2 Relevant identified uses of the substance or mixture and uses advised against Professional use **Application of the substance / the mixture:** Waterproofing membrane

1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier: OWL WATERPROOFING SOLUTIONS 135 Slaney Road, Dublin Industrial Estate Glasnevin, Dublin 11 Tel: +353 01 830 2250 Email: info@owlwaterproofing.co.uk

Website: www.owlwaterproofing.co.uk 1.4 Emergency telephone number:



European Emergency Tel.: +353 01 830 2250

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

Classification according to Regulation EC No 1272/2008 CLP: Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to Regulation EC No 1272/2008 CLP:

The product is classified and labelled according to the CLP regulation. Hazard pictograms: Void

Signal word: Void

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.

P280 Wear protective gloves.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:

EUH208 Contains reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7]and 2-methyl-2H -isothiazol-3- one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3one [EC no. 247-500-7]and 2-methyl-4-isothiazolin-3- one [EC no. 220-239-6] (3:1), 2-octyl-2Hisothiazol-3-one. May produce an allergic reaction.

EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist. **2.3 Other hazards**

Results of PBT and vPvB assessment

PBT: Not applicable.

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rade name: LAVA 20 ECO		
vPvB: Not applicable.		(Contd. of page 1
SECTION 3: Composition/informa	ition on ingredients	
3.2 Mixtures Description: Mixture: consisting of	the following components.	
Ingredients according Regulation	(EU) 2020/878:	
CAS: 3470-98-2 EINECS: 222-437-8 Reg.nr.: 01-2120062728-48-XXXX	1-butylpyrrolidin-2-one Acute Tox. 3, H301; Acute Tox. 3, H331; Skin Irrit. 2, H315; Eye Irrit. 2, H319	≥2.5-<10%
CAS: 1314-13-2 EINECS: 215-222-5 Index number: 030-013-00-7 Reg.nr.: 01-2119463881-32-XXXX	zinc oxide Aquatic Acute 1, H400; Aquatic Chronic 1, H410	≥0.25-<2.5%
CAS: 55965-84-9 EC number: 611-341-5 Index number: 613-167-00-5	reaction mass of: 5-chloro-2- methyl-4- isothiazolin-3-one [EC no. 247-500-7]and 2- methyl-2H -isothiazol-3- one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2- methyl-4- isothiazolin-3-one [EC no. 247-500-7]and 2- methyl-4-isothiazolin-3- one [EC no. 220-239-6] (3:1) Acute Tox. 3, H301; Acute Tox. 2, H310; Acute Tox. 2, H330; Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100); Skin Sens. 1A, H317, EUH071 Specific concentration limits: Skin Corr. 1C; H314: C ≥ 0.6 % Eye Dam. 1; H318: C ≥ 0.6 % Eye Irrit. 2; H319: 0.06 % ≤ C < 0.6 % Skin Sens. 1A; H317: C ≥ 0.0015 %	≥0.00025-<0.0015%
CAS: 26530-20-1 EINECS: 247-761-7 Index number: 613-112-00-5	 2-octyl-2H-isothiazol-3-one Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 2, H330; Skin Corr. 1, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100); Skin Sens. 1A, H317, EUH071 ATE: LD50 oral: 125 mg/kg LD50 dermal: 311 mg/kg Specific concentration limit: Skin Sens. 1A; H317; C ≥ 0.0015 % 	≥0.00025-<0.00159

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CAS: 1317-65-3 EINECS: 215-279-6	limestone	(Contd. of page 2 ≥10-<15%
CAS: 13463-67-7 EINECS: 236-675-5 Index number: 022-006-00-2 Reg.nr.: 01-2119489379-17-XXXX	titanium dioxide substance with a Community workplace exposure limit	≥2.5-<5%

Additional information:

(CAS:13463-67-7) Titanium dioxide

Note 10: The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter \leq 10 µm.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

Allow affected people to get some fresh air.

Request medical help immediately

After inhalation:

Get fresh air. Provide artificial respiratory support if necessary. Keep the patient warm.

If symptoms last, see a doctor.

After skin contact:

Wash with soap and water immediately, then thoroughly rinse.

Talk to a doctor if skin irritation persists.

After eye contact:

Rinse the opened eye under flowing water for 15 minutes. Consult a doctor if the symptoms continue. Take off your contact lenses and keep rinsing for a few minutes.

Avoid forceful water jets to prevent corneal injury: consult a doctor.

Protect healthy eyes.

After swallowing:

Do not force yourself to vomit; instead, contact emergency help right away.

Ensure you are getting lots of fresh air and drink. Make a doctor's appointment immediately. Seek emergency medical attention.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray.
For safety reasons unsuitable extinguishing agents: Water with full jet
5.2 Special hazards arising from the substance or mixture
Carbon monoxide (CO)
Carbon dioxide (CO2)
zinc oxide (ZnO)

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Printing date 13.10.2021 Version number 3 (replaces version 2) Revision: 13.10.2021 Trade name: LAVA 20 ECO (Contd. of page 3) 5.3 Advice for firefighters **Protective equipment:** In the event of fire, self-contained breathing gear and full protective clothes are required. Separately collect contaminated fire-fighting water. It should not go down the sewage line. **SECTION 6: Accidental release measures** 6.1 Personal precautions, protective equipment and emergency procedures: Make sure there is enough air circulation. Avoid breathing in fumes. Stay away from sources of ignition. 6.1.1 For non-emergency personnel Stay away from any leaking or flowing substances. 6.1.2 For emergency responders Protective gear, gloves, goggles, and a breathing device with a type A filter are required for first-aid rescuers. 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water. Do not allow to penetrate the ground/soil. 6.3 Methods and material for containment and cleaning up: Utilize absorbent material to collect (sand, diatomite). Make sure there is enough airflow. Utilize a liquid binding substance to absorb liquid components. 6.4 Reference to other sections: See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information. SECTION 7: Handling & storage 7.1 Precautions for safe handling If applied effectively, no further safety measures are required. Assure enough exhaustion and airflow at the worksite. Avoid inhaling vapors. Avoid eating, drinking, and smoking while using the product. Avoid skin and eye contact. 7.2 Conditions for safe storage, including any incompatibilities Storage: Requirements to be met by storerooms and receptacles: Retain in a cold environment. Don't let any liquid soak into the ground. Receptacles should have ventilation. Information about storage in one common storage facility: Keep away from edibles. Further information about storage conditions: Preserve the container tightly locked. Safeguard against high temperatures and sunlight. 7.3 Specific end use(s) No further relevant information available.

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SECTION 8: Exposure controls/personal protection 8.1 Control parameters Ingredients with limit values that require monitoring at the workplace: CAS: 13463-67-7 titanium dioxide WEL (Great Britain) Long-term value: 10* 4** mg/m3 *total inhalable **respirable DNELS 1-butylpyrrolidin-2-one (CAS: 3470-98-2). workers: Dermal - Long-term - systemic effects: 10 mg/kg dw/day. Inhalation - Long-term - systemic effects: 24.1 mg/m3. Zinc oxide (CAS: 1314-13-2) DNEL workers, Chronic systemic effects: Inhalation: 5 mg/m3 Dermal: 83 mg/kg Consumers DNEL, Chronic systemic effects Ingestion: 0.83 mg/kg Inhalation: 83 mg/kg Titanium dioxide cas: 13463-67-7 DNEL: 10 mg/m3 **PNECs** 1-butylpyrrolidin-2-one (CAS: 3470-98-2). Fresh water: 4 mg / 1 Freshwater demand: 29.6 mg / kg Marine water: 0.4 mg / 1 Marine sediment? 2.96 mg / kg Soil: 3.57 mg / kg Sewage treatment plant: 30.62 mg / 1 Discontinued use / release: 1 mg / 1 Zinc oxide (CAS: 1314-13-2): Freshwater PNEC: 20.6 mg/l Marine water PNEC: 6.1 mg/l PNEC STP (liquid waste treatment plant): 52 mg/l PNEC sediment (fresh water): 117.8 mg/kg PNEC sediment (marine water): 56.5 mg/kg Soil PNEC: 35.6 mg/kg 8.2 Exposure controls 8.2.1. Appropriate engineering controls Ensure proper ventilation. When handling chemicals and mixtures, use the required safety precautions. Individual protection measures, such as personal protective equipment General protective and hygienic measures: Avoid food, drink and feed, Before breaks and after work, wash your hands. Avoid eating, drinking and smoking while using the product. (Contd. on page 6)

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Protective clothes should be stored separately. Keep your hands away from your skin and eyes.

Respiratory protection:



In cases of inadequate ventilation, use an appropriate respiratory protection gear. Respiratory protection is necessary while spraying and in poorly ventilated work spaces. For brief durations of labor, a charcoal filter and particle filter A2-P2 (EN529) combination mask or an air-fed mask are advised.

Hand protection



Protective gloves resistant to chemicals (standard EN 374-1)

The material used for the gloves must be waterproof and resistant to the product, substance, or preparation. No advice for the glove material for the product, preparation, or chemical mixture can be made due to a lack of studies.

Choose the glove material while taking the degradation, diffusion, and penetration rates into account

Material of gloves

Hand protection when handling the product at room temperature:

Butyl rubber - IIR: thickness ≥0,5mm; breakthrough time ≥480min.

Fluorinated rubber - FKM: thickness ≥0,4mm; breakthrough time ≥480min.

Recommendation: contaminated gloves should be disposed of.

The material used for the gloves must be waterproof and resistant to the product, substance, or preparation. No advice for the glove material for the product, preparation, or chemical mixture can be made due to a lack of studies. Choose the glove material while taking the degradation, diffusion, and penetration rates into account Penetration time of glove material

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended. Eye/face protection



Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:



Chemically resistant, protective work clothing (EN 14605) and boots.

Environmental exposure controls

Avoid penetrating the product into drains, soil, or groundwater.

Flushing fluids should be disposed of in compliance with local and international regulations.

SECTION 9: Physical & chemical properties

9.1 Information on basic physical	and chemical properties
General Information	
Colour:	Not determ
Odour:	

Odour threshold:

nined

Not determined

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	(Contd. of page (
Melting point/freezing point:	Not determined
Flammability	Not applicable
Lower and upper explosion limit	
Lower:	Not determined
Upper:	Not determined
Flash point:	Not Flammable
Auto-ignition temperature:	Product is not selfigniting.
Decomposition temperature:	Not determined
pH	Not determined
Viscosity:	
Kinematic viscosity	Not determined
Kinematic viscosity	
Dynamic:	Not determined
Solubility	
water:	Fully miscible
Partition coefficient n-octanol/water (log value)	Not determined
Vapour pressure:	Not determined
Density and/or relative density	
Density:	Not determined
Relative density	Not determined
Vapour density	Not determined
9.2 Other information	
Appearance:	T fault
Form:	Liquid
Important information on protection of health an	a
environment, and on safety.	Store description in
Auto-ignition temperature:	Not determined
Explosive properties:	Product does not present an explosion hazard.
Cloud point / clarification point:	N. C. STR.
Oxidising properties	Not oxidising
kvanoration rate	Not determined
Evaporation rate	
Information with regard to physical hazard classe	
Information with regard to physical hazard classe Explosives	Void
Information with regard to physical hazard classe Explosives Flammable gases	Void Void
Information with regard to physical hazard classe Explosives Flammable gases	Void
Information with regard to physical hazard classe Explosives Flammable gases Aerosols	Void Void
Information with regard to physical hazard classe Explosives Flammable gases Aerosols Oxidising gases	Void Void Void
Information with regard to physical hazard classe Explosives Flammable gases Aerosols Oxidising gases Gases under pressure	Void Void Void Void Void Void
Information with regard to physical hazard classe Explosives Flammable gases Aerosols Oxidising gases Gases under pressure Flammable liquids	Void Void Void Void Void
Information with regard to physical hazard classe Explosives Flammable gases Aerosols Oxidising gases Gases under pressure Flammable liquids Flammable solids	Void Void Void Void Void Void
Information with regard to physical hazard classe Explosives Flammable gases Aerosols Oxidising gases Gases under pressure Flammable liquids Flammable solids Self-reactive substances and mixtures	Void Void Void Void Void Void Void
Information with regard to physical hazard classe Explosives Flammable gases Aerosols Oxidising gases Gases under pressure Flammable liquids Flammable solids Self-reactive substances and mixtures Pyrophoric liquids	Void Void Void Void Void Void Void Void
Information with regard to physical hazard classe Explosives Flammable gases Aerosols Oxidising gases Gases under pressure Flammable liquids Flammable solids Self-reactive substances and mixtures Pyrophoric liquids Pyrophoric solids	Void Void Void Void Void Void Void Void
Information with regard to physical hazard classe Explosives Flammable gases Aerosols Oxidising gases Gases under pressure Flammable liquids Flammable solids Self-reactive substances and mixtures Pyrophoric liquids Pyrophoric solids Self-heating substances and mixtures	Void Void Void Void Void Void Void Void
Information with regard to physical hazard classe Explosives Flammable gases Aerosols Oxidising gases Gases under pressure Flammable liquids Flammable solids Self-reactive substances and mixtures Pyrophoric liquids Pyrophoric solids Self-heating substances and mixtures Substances and mixtures, which emit flammable	Void Void Void Void Void Void Void Void
Information with regard to physical hazard classe Explosives Flammable gases Aerosols Oxidising gases Gases under pressure Flammable liquids Flammable solids Self-reactive substances and mixtures Pyrophoric liquids Pyrophoric solids Self-heating substances and mixtures Substances and mixtures, which emit flammable gases in contact with water	Void Void Void Void Void Void Void Void
Evaporation rate Information with regard to physical hazard classe Explosives Flammable gases Aerosols Oxidising gases Gases under pressure Flammable liquids Flammable solids Self-reactive substances and mixtures Pyrophoric liquids Pyrophoric solids Self-heating substances and mixtures Substances and mixtures, which emit flammable gases in contact with water Oxidising liquids Oxidising solids	Void Void Void Void Void Void Void Void
Information with regard to physical hazard classe Explosives Flammable gases Aerosols Oxidising gases Gases under pressure Flammable liquids Flammable solids Self-reactive substances and mixtures Pyrophoric liquids Pyrophoric solids Self-heating substances and mixtures Substances and mixtures, which emit flammable gases in contact with water	Void Void Void Void Void Void Void Void

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I rade name	: LAVA 20 ECO			
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	e to metals ised explosives	Void Void		
SECTION	N 10: Stability & reactivity			
10.2 Che Thermal 10.3 Poss 10.4 Con 10.5 Inco 10.6 Haz	sibility of hazardous reaction ditions to avoid Avoid heat, compatible materials No furth ardous decomposition prod ioxide (CO2) monoxide	to be avoided Stable at normal condition ons No dangerous reactions known. sparkles, naked flame or other sources of ignition. her relevant information available.		
	N 11: Toxicological informati			
		as defined in Regulation (EC) No 1272/2008 a, the classification criteria are not met.		
the second	0 values relevant for classif			
ATE (Ac	Acute Toxicity Estimates)			
Oral	LD50	9,174-61,162 mg/kg (rat)		
Inhalative	e LC50/4h (dusts and mists)	171 mg/l (rat)		
CAS: 34	70-98-2 1-butylpyrrolidin-2	-one		
Oral	LD50	300-2,000 mg/kg (rat)		
Dermal	LD50	>2,000 mg/kg (rat)		
Inhalative	e LC50/4h (dusts and mists)	5.6 mg/l (rat)		
CAS: 13	14-13-2 zinc oxide			
Oral	LD50	>5,000 mg/kg (rat)		
CAS: 26:	530-20-1 2-octyl-2H-isothia	zol-3-one		
Oral	LD50	125 mg/kg (ATE)		
Dermal	LD50	311 mg/kg (ATE)		
Serious of Respirat Germ ce Carcinog Reprodu 1-butylpy Effects of Genre: R How to a Fertility:	eye damage/irritation Based ory or skin sensitisation Ba Il mutagenicity Based on ava genicity Based on available d active toxicity arrolidin-2-one (CAS: 3470-9 n fertility:			
		(Contd. on page 9)		

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Genre: Rat

Method of application: inhalation (dust / fog / smoke)

Growth toxicity: NOAEL: 0.6 mg / 1

Based on available data, the classification criteria are not met.

STOT-single exposure Based on available data, the classification criteria are not met.

STOT-repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

Additional toxicological information:

Repeated dose toxicity Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

CAS: 3470-98-2 1-butylpyrrolidin-2-one

EC50 (72h) >160 mg/l (Pseudokirchn subcapitata)

EC50 (48h) >100 mg/l (Daphnia magna)

LC50 (96h) >100 mg/l (fis)

CAS: 1314-13-2 zinc oxide

EC50 (72h) 0.17 mg/l (sec)

EC50 (48h) 0.481 mg/l (Daphnia magna)

CAS: 55965-84-9 reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7]and 2methyl-2H -isothiazol-3- one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2methyl-4-isothiazolin-3-one [EC no. 247-500-7]and 2-methyl-4-isothiazolin-3- one [EC no. 220-239-6] (3:1)

EC50 (48h) 0.16 mg/l (daphnia magna)

LC50 (96h) 0.19 mg/l (Oncorhynchus mykiss)

12.2 Persistence and degradability

1-butylpyrrolidin-2-one: Biodegradable.

Zinc oxide:

Rapidly degradable: No AVAILABILITY: Easily degradable = No

12.3 Bioaccumulative potential

1-butylpyrrolidin-2-one:

Partition Coefficient: n-octanol / water: log Pow = 1,265.

Zinc oxide: low bioconcentration. **12.4 Mobility in soil** 1-butylpyrrolidin-2-one: Distribution between environmental departments: Koc: 43.2 **12.5 Results of PBT and vPvB assessment PBT:** Not applicable.

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vPvB: Not applicable. 12.6 Endocrine disrupting properties For information on endocrine disrupting properties see section 11. 12.7 Other adverse effects Remark: Harmful to fish Additional ecological information: General notes: Do not let undiluted products or substantial quantities of them into sewage systems, water courses, or groundwater. Environmentally hazardous components are present in the product,

Detrimental to aquatic life

SECTION 13: Disposal considerations

13.1 Waste treatment methods Recommendation



Dispose according to National Regulations.



Not to be disposed of with regular trash. Do not let product enter the drainage system.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

14.1 UN number or ID number ADR, ADN, IMDG, IATA	Void	
14.2 UN proper shipping name ADR, ADN, IMDG, IATA	Void	
14.3 Transport hazard class(es)		
ADR, ADN, IMDG, IATA Class	Void	
14.4 Packing group ADR, IMDG, IATA	Void	
14.5 Environmental hazards: Marine pollutant:	No	
14.6 Special precautions for user	Not applicable.	
14.7 Maritime transport in bulk according instruments	g to IMO Not applicable.	
	(Contd	on page 1

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Trade name: LAVA 20 ECO

UN "Model Regulation":

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Void

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture REACH Regulation 1907/2006/EC

Regulation (EU) 2020/878

CLP Regulation 1272/2008/EC

Directive 98/24/EC on the protection of health and safety of workers from the risks related to chemicals agents at work.

Council Directive 94/33/EC on the protection of young people at work, as ammended. Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding, as ammended

Directive 2012/18/EU Named dangerous substances - ANNEX I Substance is not listed. REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

National regulations:

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57

It doesn't contain substances of very high concern (SVHC).

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on what we know right now. This, however, does not create a legally binding business relationship or a guarantee for any particular product characteristics.

Relevant phrases

- H301 Toxic if swallowed.
- H310 Fatal in contact with skin.
- H311 Toxic in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H330 Fatal if inhaled.
- H331 Toxic if inhaled.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- EUH071 Corrosive to the respiratory tract.

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ade name	:: LAVA 20 ECO
	(Contd. of page 1
Denartm	nent issuing SDS:
Departin	OWL WATERPROOFING SOLUTIONS
(Second	135 Slaney Road, Dublin Industrial Estate
	Glasnevin, Dublin 11
	Tel: +353 01 830 2250
	Email: info@owlwaterproofing.co.uk
	Website: www.owlwaterproofing.co.uk
Version	number of previous version: 2
Abbrevia	ations and acronyms:
	ord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the
	al Carriage of Dangerous Goods by Road)
	ernational Maritime Code for Dangerous Goods
IATA: Inte	rnational Air Transport Association
GHS: Glob	ally Harmonised System of Classification and Labelling of Chemicals
	European Inventory of Existing Commercial Chemical Substances
	Buropean List of Notified Chemical Substances
	nical Abstracts Service (division of the American Chemical Society)
	rived No-Effect Level (REACH)
	dicted No-Effect Concentration (REACH)
	nal concentration, 50 percent
	hal dose, 50 percent
	stent, Bioaccumulative and Toxic
	bstances of Very High Concern
	Persistent and very Bioaccumulative
	3: Acute toxicity – Category 3
	2: Acute toxicity – Category 2
	1: Skin corrosion/irritation – Category 1 1B: Skin corrosion/irritation – Category 1B
	2: Skin corrosion/irritation – Category 2
	1: Serious eye damage/eye irritation – Category 1
	: Serious eye damage/eye irritation – Category 2
	1A: Skin sensitisation – Category 1A
	cute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
	ronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category I
	rronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3
	ompared to the previous version altered.



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nting date 13.10.2021	Version number 3 (replaces version 2)	Revision: 13.10.20
SECTION 1: Identification	of the substance/mixture and of the company /under	taking
1.1 Product identifier		
Trade name: LAVA 20 WH	ITE TOP COAT ECO	
	s of the substance or mixture and uses advised aga ce / the mixture: Waterproofing membrane	inst Professional use
1.3 Details of the supplier Manufacturer/Supplier: OWL WATERPROOFING 135 Slaney Road, Dublin Indu	SOLUTIONS	
Glasnevin, Dublin 11 Tel: +353 01 830 2250		
Email: info@owlwaterproofin Website: www.owlwaterproof		
1.4 Emergency telephone		
European Emerge	ncy Tel.: +353 01 830 2250	
SECTION 2: Hazard identi	Castlan	
2.1 Classification of the su		
	Regulation EC No 1272/2008 CLP:	
Aquatic Chronic 3 H412 Ha	armful to aquatic life with long lasting effects.	
2.2 Label elements		
Labelling according to Rep	gulation EC No 1272/2008 CLP:	
The product is classified and Hazard pictograms: Void		
mazaru pictograms, volu	l labelled according to the CLP regulation.	
	l labelled according to the CLP regulation.	
Signal word: Void	l labelled according to the CLP regulation.	
Hazard statements:		
Hazard statements: H412 Harmful to aquatic life		
Hazard statements: H412 Harmful to aquatic life Precautionary statements	e with long lasting effects.	
Hazard statements: H412 Harmful to aquatic life Precautionary statements P273 Avoid release to the er	e with long lasting effects.	
Hazard statements: H412 Harmful to aquatic life Precautionary statements P273 Avoid release to the er P280 Wear protective glove P501 Dispose of contents/cc	e with long lasting effects.	ernational regulations.
Hazard statements: H412 Harmful to aquatic life Precautionary statements P273 Avoid release to the er P280 Wear protective glove P501 Dispose of contents/cc Additional information: EUH208 Contains reaction r	e with long lasting effects. nvironment. s. ontainer in accordance with local/regional/national/int mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC	no. 247-500-7]and 2-methy
Hazard statements: H412 Harmful to aquatic life Precautionary statements P273 Avoid release to the en P280 Wear protective glove P501 Dispose of contents/cc Additional information: EUH208 Contains reaction to 2H -isothiazol-3- of one [EC no. 247-50]	e with long lasting effects. nvironment. s. ontainer in accordance with local/regional/national/int	no. 247-500-7]and 2-methy pro-2- methyl-4-isothiazolin
Hazard statements: H412 Harmful to aquatic life Precautionary statements P273 Avoid release to the er P280 Wear protective glove P501 Dispose of contents/co Additional information: EUH208 Contains reaction of 2H -isothiazol-3- of one [EC no. 247-56 allergic reaction. EUH211 Warning! Hazardo	e with long lasting effects. nvironment. s. ontainer in accordance with local/regional/national/int mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC one [EC no. 220-239-6] (3:1); reaction mass of: 5-chlo	no. 247-500-7]and 2-methy pro-2- methyl-4-isothiazolin 239-6] (3:1). May produce
Hazard statements: H412 Harmful to aquatic life Precautionary statements P273 Avoid release to the er P280 Wear protective glove P501 Dispose of contents/cc Additional information: EUH208 Contains reaction r 2H -isothiazol-3- o one [EC no. 247-50 allergic reaction. EUH211 Warning! Hazardo 2.3 Other hazards Results of PBT and vPvB a	e with long lasting effects. nvironment. s. ontainer in accordance with local/regional/national/int mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC ne [EC no. 220-239-6] (3:1); reaction mass of: 5-chlo 00-7]and 2-methyl-4-isothiazolin-3- one [EC no. 220- us respirable droplets may be formed when sprayed. I	no. 247-500-7]and 2-methy pro-2- methyl-4-isothiazolin 239-6] (3:1). May produce
Hazard statements: H412 Harmful to aquatic life Precautionary statements P273 Avoid release to the er P280 Wear protective glove P501 Dispose of contents/co Additional information: EUH208 Contains reaction of 2H -isothiazol-3- of one [EC no. 247-50 allergic reaction. EUH211 Warning! Hazardo 2.3 Other hazards	e with long lasting effects. nvironment. s. ontainer in accordance with local/regional/national/int mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC ne [EC no. 220-239-6] (3:1); reaction mass of: 5-chlo 00-7]and 2-methyl-4-isothiazolin-3- one [EC no. 220- us respirable droplets may be formed when sprayed. I	no. 247-500-7]and 2-methy pro-2- methyl-4-isothiazolin 239-6] (3:1). May produce

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vPvB: Not applicable.

*

10 µm.

Ingredients according Regulation	(EU) 2020/878:	
CAS: 3470-98-2 EINECS: 222-437-8 Reg.nr.: 01-2120062728-48-XXXX	1-butylpyrrolidin-2-one Acute Tox. 3, H301; Acute Tox. 3, H331; Skin Irrit. 2, H315; Eye Irrit. 2, H319	≥2.5-<10%
CAS: 1314-13-2 EINECS: 215-222-5 Index number: 030-013-00-7 Reg.nr.: 01-2119463881-32-XXXX	zinc oxide Aquatic Acute 1, H400; Aquatic Chronic 1, H410	≥0.25-<2.5%
CAS: 55965-84-9 EC number: 611-341-5 Index number: 613-167-00-5	reaction mass of: 5-chloro-2- methyl-4- isothiazolin-3-one [EC no. 247-500-7]and 2- methyl-2H -isothiazol-3- one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2- methyl-4- isothiazolin-3-one [EC no. 247-500-7]and 2- methyl-4-isothiazolin-3- one [EC no. 220-239-6] (3:1)	≥0.00025-<0.0015%
CAS: 13463-67-7 EINECS: 236-675-5 Index number: 022-006-00-2 Reg.nr.: 01-2119489379-17-XXXX	titanium dioxide substance with a Community workplace exposure limit	≥20-<30%

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SECTION 4: First aid measures 4.1 Description of first aid measures General information: Get the afflected people some fresh air. After inhalation: If the patient becomes unconscious, secure him in a side position for transportation. If symptoms last, see a doctor. After skin contact: Take off any contaminated clothing. Talk to a doctor if skin irritation persists. After eye contact: Safeguard the uninjured eye. Seek emergency medical attention. Avoid forceful water jets to prevent corneal injury; consult a doctor. After swallowing: Ensure you are getting lots of fresh air and drink. Make a doctor's appointment immediately. Seek emergency medical attention. Never offer anything by mouth to an unconscious individual. 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available. 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available. **SECTION 5: Firefighting measures** 5.1 Extinguishing media Suitable extinguishing agents: CO2, powder or water spray. Use foam to put out major fires. Use fire extinguishing methods suitable to surrounding conditions. Foam Sand or earth 5.2 Special hazards arising from the substance or mixture zinc oxide (ZnO) 5.3 Advice for firefighters **Protective equipment:** In the event of fire, self-contained breathing gear and full protective clothes are required. Additional information Separately collect contaminated fire-fighting water. It should not go down the sewage line. SECTION 6: Accidental release measures 6.1 Personal precautions, protective equipment and emergency procedures: Make sure there is enough air circulation. Avoid breathing in fumes. Avoid skin and eye contact. Wear safety gear when necessary. Keep unprotected people at a distance. 6.1.1 For non-emergency personnel Stay away from any leaking or flowing substances. 6.1.2 For emergency responders Wear safety gear when necessary. Keep vulnerable people at a distance. Protective gear, gloves, goggles, and a breathing device with a type A filter are required for first-aid rescuers.

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6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Utilize absorbent material to collect (sand, diatomite)

Absorb using a liquid adhesive (sand, diatomite, acid binders, universal binders, sawdust, silica gel). Put contaminated materials in the trash in accordance with item 13

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Do not breath vapours

Do not eat, drink or smoke during the usage of the product.

Avoid contact with skin and eyes.

Information about fire - and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Storage: Store in cool, dry conditions in well sealed receptacles.

Requirements to be met by storerooms and receptacles: Store in a cool location.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: None.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

CAS: 13463-67-7 titanium dioxide

WEL (Great Britain) Long-term value: 10* 4** mg/m³ *total inhalable **respirable

DNELS

Titanium dioxide cas: 13463-67-7 DNEL: 10 mg/m3 Zinc oxide (CAS: 1314-13-2) DNEL workers, Chronic systemic effects: Inhalation: 5 mg/m³ Dermal: 83 mg/kg Consumers DNEL, Chronic systemic effects Ingestion: 0.83 mg/kg Inhalation: 83 mg/kg 1-butylpyrrolidin-2-one (CAS: 3470-98-2), workers: Dermal - Long-term - systemic effects: 10 mg/kg dw/day. Inhalation - Long-term - systemic effects: 24,1 mg/m3. PNECs 1-butylpyrrolidin-2-one (CAS: 3470-98-2). Fresh water: 4 mg / 1 Freshwater demand: 29.6 mg / kg Marine water: 0.4 mg / 1

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Marine sediment? 2.96 mg / kg Soil: 3.57 mg / kg Sewage treatment plant: 30.62 mg / l Discontinued use / release: 1 mg / l Zinc oxide (CAS: 1314-13-2): Freshwater PNEC: 20.6 mg/l Marine water PNEC: 6.1 mg/l PNEC STP (liquid waste treatment plant): 52 mg/l PNEC sediment (fresh water): 117.8 mg/kg PNEC sediment (marine water): 56.5 mg/kg Soil PNEC: 35.6 mg/kg

8.2 Exposure controls

8.2.1. Appropriate engineering controls

Make sure there is enough airflow.

Take the necessary safety precautions while handling chemicals

Individual protection measures, such as personal protective equipment General protective and hygienic measures:

Prior to breaks and after work, wash your hands.

Avoid eating, drinking, and smoking while using the product.

Respiratory protection:



In cases of inadequate ventilation, use an appropriate respiratory protection gear. Respiratory protection is necessary while spraying and in poorly ventilated work spaces. For brief durations of labor, a charcoal filter and particle filter A2-P2 (EN529) combination mask or an air-fed mask are advised.

Hand protection



Protective gloves resistant to chemicals (standard EN 374-1)

The material used for the gloves must be waterproof and resistant to the product, substance, or preparation. No advice for the glove material for the product, preparation, or chemical mixture can be made due to a lack of studies.

Choose the glove material while taking the degradation, diffusion, and penetration rates into account

Material of gloves

Hand protection when handling the product at room temperature:

Butyl rubber - IIR: thickness ≥0,5mm; breakthrough time ≥480min.

Fluorinated rubber - FKM: thickness ≥0,4mm; breakthrough time ≥480min.

Recommendation: contaminated gloves should be disposed of.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Duration of glove material penetration

The manufacturer of the protective gloves must determine the precise breakthrough time and keep track of it. The EN 16523-1: 2015 calculated penetration times are not tested under realistic conditions. As a result, it is advised to wear clothing for no more than 50% of the time it takes for it to penetrate the skin.

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Eye/face protection



Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:



Chemically resistant, protective work clothing (EN 14605) and boots.

Environmental exposure controls

Avoid letting the substance go into drains, groundwater, surface water, or soil. Flushing fluids should be disposed of in compliance with local and

SECTION 9: Physical & chemical properties

General Information	
Physical state	Liquid
Colour:	Transparent
Odour:	Characteristic
Odour threshold:	Not determined
Melting point/freezing point:	Not determined
Flammability	Not applicable
Lower and upper explosion limit	
Lower:	Not determined
Upper:	Not determined
Flash point:	Not Flammable
Auto-ignition temperature:	Product is not selfigniting.
Decomposition temperature:	Not determined
pH	Not determined
Viscosity:	
Kinematic viscosity	Not determined
Kinematic viscosity	
Dynamic:	Not determined
Solubility	
water:	Not determined
Partition coefficient n-octanol/water (log val	ue) Not determined
Vapour pressure:	Not determined
Density and/or relative density	
Density:	Not determined
Relative density	Not determined
Vapour density	Not determined
9.2 Other information	
Appearance:	
Form:	Liquid
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Important information on protection of heal	th and
environment, and on safety.	
Auto-ignition temperature:	Not determined
Explosive properties:	Product does not present an explosion hazard.
Solvent content:	
Organic solvents:	0%
Water:	48.8 %
VOC (EC)	0.03 %
Cloud point / clarification point:	
Oxidising properties	Not oxidising
Evaporation rate	Not determined
Information with regard to physical hazard	classes
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flamm	able
gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

SECTION 10: Stability and reactivity

10.1 Reactivity Stable under normal conditions

10.2 Chemical stability Material is stable under normal conditions.

Thermal decomposition / conditions to be avoided Stable at environment temperature.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid No further relevant information available.

10.5 Incompatible materials No further relevant information available.

10.6 Hazardous decomposition products

Carbon dioxide (CO2)

Carbon monoxide

Zinc Oxides

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 Acute toxicity Based on available data, the classification criteria are not met.

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LD/LC50 valu	ues relevant for classi	fication:
ATE (Acute 7	Foxicity Estimates)	and the second sec
Oral LD	050	7,276-48,508 mg/kg (rat)
Inhalative LC	250/4h (dusts and mists)	136 mg/l (rat)
CAS: 13463-6	67-7 titanium dioxide	
Oral LD	050	>20,000 mg/kg (rat)
Dermal LD	50	>10,000 mg/kg (rabbit)
Inhalative LC	50/4 h (vapour)	>6.82 mg/l (rat)
CAS: 3470-98	8-2 1-butylpyrrolidin-	2-one
Oral LD	050	300-2,000 mg/kg (rat)
Dermal LD	050	>2,000 mg/kg (rat)
Inhalative LC	50/4h (dusts and mists)	5.6 mg/l (rat)
CAS: 1314-13	3-2 zinc oxide	
Oral LD	050	>5,000 mg/kg (rat)
Respiratory o Germ cell mu	or skin sensitisation Ba itagenicity Based on av ity Based on available	d on available data, the classification criteria are not met. ased on available data, the classification criteria are not met. vailable data, the classification criteria are not met. data, the classification criteria are not met.
Respiratory of Germ cell mu Carcinogenic Reproductive 1-butylpyrrolid Effects on fert Genre: Rat How to apply:	or skin sensitisation Ba atagenicity Based on av ity Based on available toxicity din-2-one (CAS: 3470- tility: Orally	ased on available data, the classification criteria are not met. vailable data, the classification criteria are not met. data, the classification criteria are not met. 98-2).
Respiratory of Germ cell mu Carcinogenici Reproductive 1-butylpyrrolid Effects on fert Genre: Rat How to apply: Fertility: NOA Effects on feta Genre: Rat Method of app Growth toxicit Based on avail STOT-single STOT-repeat Aspiration ha Additional to: Repeated dos	or skin sensitisation Ba itagenicity Based on av- ity Based on available toxicity din-2-one (CAS: 3470- tility: Orally AEL Parent: 500 mg / kg al development: plication: inhalation (du ty: NOAEL: 0.6 mg / 1 lable data, the classifica exposure Based on availab ted exposure Based on azard Based on availab xicological informatio	ased on available data, the classification criteria are not met. vailable data, the classification criteria are not met. data, the classification criteria are not met. 98-2). g body weight ast / fog / smoke) ation criteria are not met. atilable data, the classification criteria are not met. available data, the classification criteria are not met. le data, the classification criteria are not met. le data, the classification criteria are not met.
Respiratory of Germ cell mu Carcinogenici Reproductive 1-butylpyrrolid Effects on fert Genre: Rat How to apply: Fertility: NOA Effects on feta Genre: Rat Method of app Growth toxicit Based on avail STOT-repeat Aspiration ha Additional to: Repeated doss 11.2 Informat	or skin sensitisation Ba itagenicity Based on av- ity Based on available toxicity din-2-one (CAS: 3470- tility: Orally AEL Parent: 500 mg / kg al development: plication: inhalation (du ty: NOAEL: 0.6 mg / 1 lable data, the classifica exposure Based on availab ted exposure Based on azard Based on availab ixicological informatio se toxicity Based on availab	ased on available data, the classification criteria are not met. vailable data, the classification criteria are not met. data, the classification criteria are not met. 98-2). g body weight ast / fog / smoke) ation criteria are not met. ailable data, the classification criteria are not met. available data, the classification criteria are not met. le data, the classification criteria are not met.

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SECTION 12: Ecological information
12.1 Toxicity
Aquatic toxicity:
CAS: 3470-98-2 1-butylpyrrolidin-2-one
EC50 (72h) >160 mg/l (Pseudokirchn subcapitata)
EC50 (48h) >100 mg/l (Daphnia magna)
LC50 (96h) >100 mg/l (fis)
CAS: 1314-13-2 zinc oxide
EC50 (72h) 0.17 mg/l (sec)
EC50 (48h) 0.481 mg/l (Daphnia magna)
CAS: 55965-84-9 reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7]and 2- methyl-2H -isothiazol-3- one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7]and 2-methyl-4-isothiazolin-3- one [EC no. 220-239-6] (3:1)
EC50 (48h) 0.16 mg/l (daphnia magna)
LC50 (96h) 0.19 mg/l (Oncorhynchus mykiss)
12.2 Persistence and degradability 1-butylpyrrolidin-2-one: Biodegradable. Zinc oxide: Rapidly degradable: No AVAILABILITY: Easily degradable = No 12.3 Bioaccumulative potential 1-butylpyrrolidin-2-one: Partition Coefficient: n-octanol / water: log Pow = 1,265.
Zinc oxide: low bioconcentration. 12.4 Mobility in soil 1-butylpyrrolidin-2-one: Distribution between environmental departments: Koc: 43.2 12.5 Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable.
 12.6 Endocrine disrupting properties For information on endocrine disrupting properties see section 11. 12.7 Other adverse effects Remark: Harmful to fish Additional ecological information: General notes: Do not let undiluted products or substantial quantities of them into sewage systems, water courses, or groundwater. Environmentally hazardous components are present in the product. Detrimental to aquatic life

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Safety Data Sheet

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SECTION 13: Disposal considerations

13.1 Waste treatment methods Recommendation



Dispose according to National Regulations.



Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact manufacturer for recycling information.

Uncleaned packaging:

Recommendation:

Disposal must be made according to official regulations. Packaging may be reused or recycled after cleaning.

SECTION 14: Transport information 14.1 UN number or ID number ADR, ADN, IMDG, IATA Void 14.2 UN proper shipping name ADR, ADN, IMDG, IATA Void 14.3 Transport hazard class(es) ADR, ADN, IMDG, IATA Void Class 14.4 Packing group ADR, IMDG, IATA Void 14.5 Environmental hazards: Marine pollutant: No Not applicable. 14.6 Special precautions for user 14.7 Maritime transport in bulk according to IMO Not applicable. instruments **UN "Model Regulation":** Void

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

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National regulations:

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57

It doesn't contain substances of very high concern (SVHC).

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

- H301 Toxic if swallowed.
- H310 Fatal in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H330 Fatal if inhaled.
- H331 Toxic if inhaled.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- EUH071 Corrosive to the respiratory tract.

Training hints

Suitable training on safety in handling, storing and converting the product should be given to the employees based on all the existing information.

Department issuing SDS:

- **OWL WATERPROOFING SOLUTIONS**
- 135 Slaney Road, Dublin Industrial Estate
- Glasnevin, Dublin 11
- Tel: +353 01 830 2250 Email: info@owlwaterproofing.co.uk
- Website: www.owlwaterproofing.co.uk

Version number of previous version: 2

Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)
- DNEL: Derived No-Effect Level (REACH)
- PNEC: Predicted No-Effect Concentration (REACH)
- LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- SVHC: Substances of Very High Concern

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vPvB: very Persistent and very Bioaccumulative
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 2: Acute toxicity – Category 2
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1A: Skin sensitisation – Category 1A
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
* Data compared to the previous version altered.