

SAFETY DATA SHEET

Polyurethane Resin UR5637, Part A

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

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

1.1. Product identifier

Product name Polyurethane Resin UR5637, Part A
Product number UR5637A, EUR5637RP250G, EUR5637K5K, ZE

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Resin.
Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier
ELECTROLUBE. A division of HK WENTWORTH LTD
ASHBY PARK, COALFIELD WAY,
ASHBY DE LA ZOUCH, LEICESTERSHIRE LE65 1JR
UNITED KINGDOM
+44 (0)1530 419600
+44 (0)1530 416640
info@hkw.co.uk

1.4. Emergency telephone number

Emergency telephone +44 1865 407333

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified
Health hazards Skin Sens. 1 - H317
Environmental hazards Aquatic Chronic 3 - H412

2.2. Label elements

Pictogram



Signal word Warning

Hazard statements H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Polyurethane Resin UR5637, Part A

Precautionary statements	<p>P261 Avoid breathing vapour/ spray.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
Contains	<p>Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate</p>
Supplementary precautionary statements	<p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p>

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	<1%						
<table border="0" style="width: 100%;"> <tr> <td style="width: 33%;">CAS number: —</td> <td style="width: 33%;">EC number: 915-687-0</td> <td style="width: 34%;">REACH registration number: 01-2119491304-40-XXXX</td> </tr> <tr> <td>M factor (Acute) = 1</td> <td>M factor (Chronic) = 1</td> <td></td> </tr> </table>	CAS number: —	EC number: 915-687-0	REACH registration number: 01-2119491304-40-XXXX	M factor (Acute) = 1	M factor (Chronic) = 1		
CAS number: —	EC number: 915-687-0	REACH registration number: 01-2119491304-40-XXXX					
M factor (Acute) = 1	M factor (Chronic) = 1						
Classification Skin Sens. 1A - H317 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410							
ethyl formate	<1%						
<table border="0" style="width: 100%;"> <tr> <td style="width: 33%;">CAS number: 109-94-4</td> <td style="width: 67%;">EC number: 203-721-0</td> </tr> </table>	CAS number: 109-94-4	EC number: 203-721-0					
CAS number: 109-94-4	EC number: 203-721-0						
Classification Flam. Liq. 2 - H225 Acute Tox. 4 - H302 Acute Tox. 4 - H332 Eye Irrit. 2 - H319 STOT SE 3 - H335							
Ethanol	<1%						
<table border="0" style="width: 100%;"> <tr> <td style="width: 33%;">CAS number: 64-17-5</td> <td style="width: 33%;">EC number: 200-578-6</td> <td style="width: 34%;">REACH registration number: 01-2119457610-43-XXXX</td> </tr> </table>	CAS number: 64-17-5	EC number: 200-578-6	REACH registration number: 01-2119457610-43-XXXX				
CAS number: 64-17-5	EC number: 200-578-6	REACH registration number: 01-2119457610-43-XXXX					
Classification Flam. Liq. 2 - H225							

Polyurethane Resin UR5637, Part A

1-Methoxy-2-propanol		<1%
CAS number: 107-98-2	EC number: 203-539-1	REACH registration number: 01-2119457435-35-XXXX
Classification		
Flam. Liq. 3 - H226		
STOT SE 3 - H336		

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.
Inhalation	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.
Ingestion	Rinse mouth thoroughly with water. Remove any dentures. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.
Skin contact	It is important to remove the substance from the skin immediately. In the event of any sensitisation symptoms developing, ensure further exposure is avoided. Remove contamination with soap and water or recognised skin cleansing agent. Get medical attention if symptoms are severe or persist after washing.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue. If it is suspected that volatile contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

4.2. Most important symptoms and effects, both acute and delayed

General information	See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Prolonged inhalation of high concentrations may damage respiratory system.
Ingestion	May cause sensitisation or allergic reactions in sensitive individuals. Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.
Skin contact	May cause skin sensitisation or allergic reactions in sensitive individuals. Prolonged contact may cause dryness of the skin.
Eye contact	May cause temporary eye irritation.

Polyurethane Resin UR5637, Part A

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically. May cause sensitisation or allergic reactions in sensitive individuals.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards Containers can burst violently or explode when heated, due to excessive pressure build-up.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material. Avoid contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

6.3. Methods and material for containment and cleaning up

Polyurethane Resin UR5637, Part A

Methods for cleaning up

Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Approach the spillage from upwind. Small Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Large Spillages: If leakage cannot be stopped, evacuate area. Flush spilled material into an effluent treatment plant, or proceed as follows. Contain and absorb spillage with sand, earth or other non-combustible material. Place waste in labelled, sealed containers. Clean contaminated objects and areas thoroughly, observing environmental regulations. The contaminated absorbent may pose the same hazard as the spilled material. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dangerous for the environment. Do not empty into drains. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Avoid the formation of mists. Avoid discharge to the aquatic environment. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.

Advice on general occupational hygiene

Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Store away from incompatible materials (see Section 10). Store in accordance with local regulations. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

Storage class

Miscellaneous hazardous material storage.

7.3. Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

ethyl formate

Long-term exposure limit (8-hour TWA): WEL 100 ppm 308 mg/m³

Short-term exposure limit (15-minute): WEL 150 ppm 462 mg/m³

Ethanol

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1920 mg/m³

Polyurethane Resin UR5637, Part A

1-Methoxy-2-propanol

Long-term exposure limit (8-hour TWA): WEL 100 ppm 375 mg/m³

Short-term exposure limit (15-minute): WEL 150 ppm 560 mg/m³

Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimise exposure.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

Hygiene measures

Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.

Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with European Standard EN14387. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.

Environmental exposure controls

Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Polyurethane Resin UR5637, Part A

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	White.
Odour	Characteristic.
pH	Not available.
Melting point	Not available.
Initial boiling point and range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Bulk density	1.06 kg/l
Solubility(ies)	Not available.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	900 mPa s @ 23°C/73.4°F
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity See the other subsections of this section for further details.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions No potentially hazardous reactions known.

10.4. Conditions to avoid

Conditions to avoid There are no known conditions that are likely to result in a hazardous situation.

10.5. Incompatible materials

Polyurethane Resin UR5637, Part A

Materials to avoid No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation May cause skin sensitisation or allergic reactions in sensitive individuals.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

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

IARC carcinogenicity

Contains a substance/a group of substances which may cause cancer. IARC Group 1
Carcinogenic to humans.

Reproductive toxicity

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

Reproductive toxicity - development

Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

General information

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Polyurethane Resin UR5637, Part A

Inhalation	Prolonged inhalation of high concentrations may damage respiratory system.
Ingestion	May cause sensitisation or allergic reactions in sensitive individuals. Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.
Skin contact	May cause skin sensitisation or allergic reactions in sensitive individuals. Prolonged contact may cause dryness of the skin.
Eye contact	May cause temporary eye irritation.
Route of entry	Ingestion Inhalation Skin and/or eye contact
Target organs	No specific target organs known.
Medical considerations	Skin disorders and allergies.

Triethyl orthoformate

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 7,060.0

Species Mouse

ATE oral (mg/kg) 7,060.0

Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 3,230.0

Species Rat

ATE oral (mg/kg) 3,230.0

Butane-1,4-diol

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,500.0

Species Rat

ATE oral (mg/kg) 1,500.0

Surfynol DF-75 Defoamer

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,000.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Polyurethane Resin UR5637, Part A

Species	Rabbit
	<u>diisooctyl 2,2'-[(dioctylstannylene)bis(thio)]diacetate</u>
<u>Acute toxicity - oral</u>	
ATE oral (mg/kg)	500.0
	<u>ethyl formate</u>
<u>Acute toxicity - oral</u>	
ATE oral (mg/kg)	500.0
<u>Acute toxicity - inhalation</u>	
ATE inhalation (gases ppm)	4,500.0
ATE inhalation (vapours mg/l)	11.0
ATE inhalation (dusts/mists mg/l)	1.5
	<u>Ethanol</u>
Toxicological effects	Not regarded as a health hazard under current legislation.
<u>Acute toxicity - oral</u>	
Notes (oral LD ₅₀)	LD ₅₀ 10470 mg/kg, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.
<u>Acute toxicity - inhalation</u>	
Notes (inhalation LC ₅₀)	LD ₅₀ 124.7 mg/l, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met.
<u>Skin corrosion/irritation</u>	
Animal data	Dose: 0.2 mL, 24 hours, Rabbit Primary dermal irritation index: 0 REACH dossier information. Based on available data the classification criteria are not met.
<u>Skin sensitisation</u>	
Skin sensitisation	Local Lymph Node Assay (LLNA) - Mouse: Not sensitising. REACH dossier information. Based on available data the classification criteria are not met.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Gene mutation: Negative. REACH dossier information. Based on available data the classification criteria are not met.
Genotoxicity - in vivo	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.
<u>Carcinogenicity</u>	
IARC carcinogenicity	IARC Group 1 Carcinogenic to humans.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Two-generation study - NOAEL 15% , Oral, Mouse REACH dossier information. Based on available data the classification criteria are not met.

Polyurethane Resin UR5637, Part A

Reproductive toxicity - development Maternal toxicity: - NOAEL: 16000 ppm, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure LOAEL ~4000 mg/kg, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

1-Methoxy-2-propanol

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 3,739.0

Species Rat

Notes (oral LD₅₀) LD₅₀ 3739 mg/kg, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

ATE oral (mg/kg) 3,739.0

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >2000 mg/kg, Dermal, Rat REACH dossier information. Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data Dose: 0.5 mL, 4 hours, Rabbit Erythema/eschar score: No erythema (0). Oedema score: No oedema (0). REACH dossier information. Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. REACH dossier information. Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative. REACH dossier information. Based on available data the classification criteria are not met.

Genotoxicity - in vivo Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity NOEL 3000 ppm, Inhalation, Mouse REACH dossier information. Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Two-generation study - NOAEL 1000 ppm, Inhalation, Rat F1 REACH dossier information. Based on available data the classification criteria are not met.

Reproductive toxicity - development Teratogenicity: - NOAEL: 1500 ppm, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure STOT SE 3 - H336 May cause drowsiness or dizziness. REACH dossier information.

Target organs Central nervous system Brain

Specific target organ toxicity - repeated exposure

Polyurethane Resin UR5637, Part A

STOT - repeated exposure NOAEL 919 mg/kg/day, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

isooctyl mercaptoacetate

Acute toxicity - oral

ATE oral (mg/kg) 500.0

SECTION 12: Ecological Information

12.1. Toxicity

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

Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C50 ≤ 1

M factor (Acute) 1

Chronic aquatic toxicity

M factor (Chronic) 1

Ethanol

Toxicity Based on available data the classification criteria are not met.

Acute toxicity - fish LC₅₀, 96 hours: 14200 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates LC₅₀, 48 hours: 5012 mg/l, Ceriodaphnia dubia

Acute toxicity - aquatic plants EC₅₀, 72 hours: 11.5 mg/l, Chlorella vulgaris

Chronic toxicity - aquatic invertebrates NOEC, 9 days: 9.6 mg/l, Daphnia magna

1-Methoxy-2-propanol

Acute toxicity - fish LC₅₀, 96 hours: 20800 mg/l, Pimephales promelas (Fat-head Minnow)
REACH dossier information.

Acute toxicity - aquatic invertebrates LC₅₀, 48 hours: 21100 mg/l, Daphnia magna
REACH dossier information.

Acute toxicity - aquatic plants EC₅₀, 7 days: >1000 mg/l, Selenastrum capricornutum
REACH dossier information.

isooctyl mercaptoacetate

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C50 ≤ 1

M factor (Acute) 1

12.2. Persistence and degradability

Polyurethane Resin UR5637, Part A

Persistence and degradability The degradability of the product is not known.

Ethanol

Persistence and degradability	The substance is readily biodegradable.
Biodegradation	Water - Degradation 74%: 10 days
Chemical oxygen demand	1.99 g O ₂ /g substance

1-Methoxy-2-propanol

Persistence and degradability	The substance is readily biodegradable.
Phototransformation	Water - DT ₅₀ : 3.1 hours REACH dossier information.
Biodegradation	Water - Degradation 96%: 28 days REACH dossier information.

12.3. Bioaccumulative potential

Bioaccumulative potential	No data available on bioaccumulation.
Partition coefficient	Not available.

Butane-1,4-diol

Bioaccumulative potential	Bioaccumulation is unlikely.
----------------------------------	------------------------------

Ethanol

Bioaccumulative potential	Bioaccumulation is unlikely.
Partition coefficient	log Pow: -0.35

1-Methoxy-2-propanol

Bioaccumulative potential	No data available on bioaccumulation.
Partition coefficient	log Pow: <1 REACH dossier information.

12.4. Mobility in soil

Mobility	No data available.
-----------------	--------------------

Ethanol

Mobility	The product is soluble in water.
Surface tension	24.5 mN/m @ 20°C/68°F

1-Methoxy-2-propanol

Mobility	Mobile.
Surface tension	70.7 mN/m @ 20°C

12.5. Results of PBT and vPvB assessment

Polyurethane Resin UR5637, Part A

Butane-1,4-diol

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ethanol

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

1-Methoxy-2-propanol

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information

The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods

Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Incineration or landfill should only be considered when recycling is not feasible.

SECTION 14: Transport information

General

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

Transport labels

No transport warning sign required.

14.4. Packing group

Not applicable.

Polyurethane Resin UR5637, Part A

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78
and the IBC Code

SECTION 15: Regulatory information

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

National regulations

Health and Safety at Work etc. Act 1974 (as amended).
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
EH40/2005 Workplace exposure limits.

EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Commission Regulation (EU) No 2015/830 of 28 May 2015.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

None of the ingredients are listed or exempt.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
IATA: International Air Transport Association.
ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air.
IMDG: International Maritime Dangerous Goods.
CAS: Chemical Abstracts Service.
ATE: Acute Toxicity Estimate.
LC₅₀: Lethal Concentration to 50 % of a test population.
LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
EC₅₀: 50% of maximal Effective Concentration.
PBT: Persistent, Bioaccumulative and Toxic substance.
vPvB: Very Persistent and Very Bioaccumulative.

Classification abbreviations and acronyms

Skin Sens. = Skin sensitisation
Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Polyurethane Resin UR5637, Part A

Classification procedures according to Regulation (EC) 1272/2008	Skin Sens. 1 - H317: : Calculation method. Aquatic Chronic 3 - H412: : Calculation method.
Training advice	Read and follow manufacturer's recommendations. Only trained personnel should use this material.
Issued by	Emily Kirk
Revision date	06/11/2017
Revision	0
SDS number	2291
Hazard statements in full	H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H302 Harmful if swallowed. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. 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.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.