

atco° SAFETY DATA SHEET

Resiflow Chemical Grade - Resin

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

1.1 Product identifier

Product name : Resiflow Chemical Grade - Resin

Product description : Paint
Product type : Liquid.

UFI : QFG0-Y0W6-5009-F245

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

Identified uses	
Consumer Industrial Professional	

Uses advised against	Reason
None identified.	-

1.3 Details of the supplier of the safety data sheet

Watco UK Limited Eastgate Court 195-205 High Street Guildford Surrey GU1 3EH

Telephone no.: +44 (0) 1483 425000 (08:00 - 18:00)

Fax no.: +44 (0) 1483 428888

e-mail address of person : rpmeurohas@rustoleum.eu

responsible for this SDS

1.4 Emergency telephone number

National advisory body/Poison Centre

Supplier

Telephone number United Kingdom: : +44 870 8200418 / +44 2038073798

Great Britain

Hours of operation : 24 / 7

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

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SECTION 2: Hazards identification

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms







Signal word : Danger

Hazard statements: H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction. H318 - Causes serious eye damage.

H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

General : P103 - Read carefully and follow all instructions.

P102 - Keep out of reach of children.

P101 - If medical advice is needed, have product container or label at hand.

Prevention: P280 - Wear protective gloves. Wear eye or face protection.

P273 - Avoid release to the environment.

Response : P391 - Collect spillage.

P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor.

Storage : Not applicable.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional,

national and international regulations.

Hazardous ingredients : 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and

phenol

oxirane, mono[(C10-16-alkyloxy)methyl] derivs

1,4-bis(2,3-epoxypropoxy)butane bis-[4-(2,3-epoxipropoxi)phenyl]propane

phenol, methylstyrenated

Oxirane, mono [(C12-C14-alkyloxy)methyl] derivatives

pine oil

Supplemental label

elements

: EUH205 - Contains epoxy constituents. May produce an allergic reaction.

EUH211 - Warning! Hazardous respirable droplets may be formed when sprayed.

Do not breathe spray or mist.

Supplemental label elements : Detergents - Regulation (EC) No

907/2006

: Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant

: Not applicable.

fastenings

Tactile warning of danger : Not applicable.

2.3 Other hazards

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SECTION 2: Hazards identification

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification

: None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

United Kingdom: Great Britain

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Туре
2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)] bisoxirane		≥10 - ≤25	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	Skin Irrit. 2, H315: C ≥ 5% Eye Irrit. 2, H319: C ≥ 5%	[1]
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	REACH #: 01-2119454392-40 EC: 500-006-8 CAS: 9003-36-5	≥10 - ≤25	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411	-	[1]
oxirane, mono[(C10-16-alkyloxy)methyl] derivs	EC: 268-358-2 CAS: 68081-84-5	≤5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	-	[1]
1,4-bis(2,3-epoxypropoxy) butane	EC: 219-371-7 CAS: 2425-79-8 Index: 603-072-00-7	≤5	Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412	ATE [Oral] = 1134 mg/kg ATE [Dermal] = 1130 mg/kg ATE [Inhalation (vapours)] = 11 mg/	[1]
hydrocarbons, aromatic, C9	REACH #: 01-2119455851-35 List #: 918-668-5	≤3	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	_	[1]
bis-[4-(2,3-epoxipropoxi) phenyl]propane	REACH #: 01-2119456619-26 EC: 216-823-5 CAS: 1675-54-3 Index: 603-073-00-2	≤3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1A, H317 Aquatic Chronic 2, H411	Skin Irrit. 2, H315: C ≥ 5% Eye Irrit. 2, H319: C ≥ 5%	[1]
phenol, methylstyrenated	REACH #: 01-2119555274-38 EC: 270-966-8 CAS: 68512-30-1	≤1	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 3, H412	-	[1]
Oxirane, mono [(C12-C14-alkyloxy)methyl] derivatives	REACH #: 01-2119485289-22 EC: 271-846-8	≤0,3	Skin Irrit. 2, H315 Skin Sens. 1, H317	-	[1]

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SECTION 3: Composition/information on ingredients

Index: 603-103-00-4 pine oil CAS: 8002-09-3 List #: 616-792-1 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Chronic 2,				See Section 16 for the full text of the H statements declared above.		
	pine oil	CAS: 8002-09-3	≤0,3	Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304	-	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Type

[1] Substance classified with a health or environmental hazard

List numbers have no legal significance.

This mixture contains ≥ 1% of titanium dioxide. The Annex VI classification of titanium dioxide does not apply to this mixture according to Note 10.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact

: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation

: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact

: Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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SECTION 4: First aid measures

Protection of first-aiders

: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:

> pain watering redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion : Adverse symptoms may include the following:

stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing

media

: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing

: None known.

media

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion products

Decomposition products may include the following materials:

carbon dioxide carbon monoxide sulfur oxides

halogenated compounds metal oxide/oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

: Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other sections

: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance.

7.1 Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

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SECTION 7: Handling and storage

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

	Notification and MAPP threshold	Safety report threshold	
E2	200 tonne	500 tonne	

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific : Not available.

solutions

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere 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. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	DNEL	Short term Dermal	83 mg/cm²	Workers	Local
	DNEL	Long term Dermal	104,15 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	29,39 mg/ m³	Workers	Systemic
	DNEL	Long term Dermal	62,5 mg/ kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	8,7 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Oral	6,25 mg/ kg bw/day	General population [Consumers]	Systemic
hydrocarbons, aromatic, C9	DNEL	Long term Inhalation	150 mg/m³	Workers	Systemic

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SECTION 8: Exposure controls/personal protection

DNEL Long term Dermal 25 mg/kg Workers Systemic System	
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Inhalation	
DNFL I l ong term Dermal 1.7 mg/cm² Workers L ocal	
DNEL Long term 0,98 mg/m³ Workers Local	
Inhalation	
DNEL Short term Dermal 10 mg/kg General Systemic	
bw/day population	
[Consumers]	
DNEL Short term 7,6 mg/m³ General Systemic	
Inhalation population	
[Consumers]	
kg bw/day population	
[Consumers]	
DNEL Short term Dermal 40 mg/cm² General Local	
population	
[Consumers]	
DNEL Short term 2,9 mg/m³ General Local	
Inhalation population	
[Consumers]	
DNEL Long term Dermal 2,35 mg/ General Systemic	
kg bw/day population	
[Consumers]	
DNEL Long term 4,1 mg/m³ General Systemic	
Inhalation The control of the cont	
[Consumers]	
DNEL Long term Oral 1 mg/kg General Systemic	

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SECTION 8: Exposure controls/personal protection

		bw/day	population	
DNEL	Long term Dermal	1 mg/cm²	[Consumers] General	Local
DNE		4.40	population [Consumers]	Land
DNEL	Long term Inhalation	1,46 mg/m ³	population [Consumers]	Local

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
Formaldehyde, oligomeric reaction products	Fresh water	0,003 mg/l	-
with 1-chloro-2,3-epoxypropane and phenol			
	Marine water	0,0003 mg/l	-
	Sewage Treatment	10 mg/l	-
	Plant		
	Fresh water sediment	0,294 mg/kg dwt	-
	Marine water sediment	0,0294 mg/kg dwt	-
	Soil	0,237 mg/kg dwt	-
itanium dioxide	Fresh water	0,127 mg/l	-
	Marine	>1 mg/l	-
	Sewage Treatment Plant	>100 mg/l	-
	Fresh water sediment	>1000 mg/kg	_
	Marine water sediment	>1000 mg/kg	_
	Soil	100 mg/kg	_
	Marine water	0,0184 mg/l	_
	Fresh water	0,184 mg/l	_
ois-[4-(2,3-epoxipropoxi)phenyl]propane	Fresh water	3 ng/l	_
[. (=,0 0 0) p p p p p p p.	Marine water	0,3 ng/l	_
	Fresh water sediment	0,5 mg/kg	_
	Marine water sediment	0,5 mg/kg	_
	Sediment	0,05 mg/kg	-
	Sewage Treatment	10 mg/l	-
	Plant		
li-isobutyl ketone	Fresh water	0,03 mg/l	-
	Marine water	0,003 mg/l	-
	Fresh water sediment	0,46 mg/kg	-
	Marine water sediment	0,046 mg/kg	-
	Sewage Treatment Plant	2,55 mg/l	-
	Soil	0,0746 mg/kg	_
Oxirane, mono [(C12-C14-alkyloxy)methyl]	Fresh water	0,0072 mg/l	_
lerivatives	Tresti water		
	Marine	0,00072 mg/l	-
	Sewage Treatment	10 mg/l	-
	Plant		
	Fresh water sediment	66,77 mg/kg dwt	-
	Marine water sediment	6,677 mg/kg dwt	-
. d (Soil	80,12 mg/kg dwt	- -
ylene (mixture of isomeres)	Fresh water	0,327 mg/l	Sensitivity Distribution
	Marine water Fresh water sediment	0,327 mg/l	Sensitivity Distribution
	Marine water sediment	12,46 mg/kg 12,46 mg/kg	Equilibrium Partitionir Equilibrium Partitionir
	Soil		Equilibrium Partitionir
	Sewage Treatment	2,31 mg/kg 6,58 mg/l	Equilibrium Farudonii
	Plant	0,56 mg/l	-
Furpentine, oil	Fresh water sediment	8,8 µg/l	_
raiponano, on	Marine	0,88 μg/l	_
	Fresh water sediment	2,27 mg/kg	_
	Fresh water sediment	0,227 mg/kg	_
		,g/Ng	

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SECTION 8: Exposure controls/personal protection

	0.3	0.45	1
	Soil	0,45 mg/kg	-
	Sewage Treatment	6,6 mg/l	-
	Plant		
2-methoxy-1-methylethyl acetate	Fresh water	0,635 mg/l	-
	Fresh water sediment	3,29 mg/kg	-
	Marine water sediment	0,329 mg/kg	-
	Soil	0,29 mg/kg	-
	Sewage Treatment	100 mg/l	-
	Plant		
ethylbenzene	Fresh water	0,1 mg/l	-
	Marine water	0,01 mg/l	-
	Fresh water sediment	13,7 mg/kg	-
	Marine water sediment	1,37 mg/kg	-
	Soil	2,68 mg/kg	-
	Sewage Treatment	9,6 mg/l	-
	Plant		
2-methylpropan-1-ol	Fresh water	0,4 mg/l	-
	Marine water	0,04 mg/l	-
	Sewage Treatment	10 mg/l	-
	Plant		
	Fresh water sediment	1,52 mg/kg	-
	Marine water sediment	0,125 mg/kg	-
	Soil	0,0699 mg/kg	-
L			

8.2 Exposure controls

Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Use eye protection according to EN 166. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Recommended: safety glasses with side-shields. (EN 166)

Skin protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

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included in the user's risk assessment.

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SECTION 8: Exposure controls/personal protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): (EN 374) neoprene (0.65mm) The recommendation for the type or types of glove to use when handling this product is based on information from the following source: EN374. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Wear overalls or long sleeved shirt. (EN 467)

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: organic vapour (Type A) and particulate filter (as filter combination A-P2) (EN 140)

Environmental exposure controls

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.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Physical state : Liquid.

Colour : Not available.

Odour Mild

Odour threshold : Not available.

Melting point/freezing point

Initial boiling point and

boiling range

: Not available.

: Not relevant due to nature of the product.

: Not available. Flammability (solid, gas) Lower and upper explosion

: Not available.

Flash point **Auto-ignition temperature**

Closed cup: >100°C (>212°F) [Literature] : Not relevant due to nature of the product.

Decomposition temperature : Not available. pН : Not applicable.

pH: Justification : Product is non-soluble (in water).

Viscosity : Dynamic: >3600 mPa·s [ISO EN BS DIN 3219]

Solubility(ies)

Not available.

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SECTION 9: Physical and chemical properties

Solubility in water : Not available.

Miscible with water : No.

Partition coefficient: n-octanol/ : Not applicable.

water

Vapour pressure

: <0,27 kPa (<2 mm Hg) [calculated.]

Evaporation rate : Not available.

Relative density : 1,71

Density : 1,72 g/cm³ [20°C (68°F)] [DIN 53217]

Vapour density : Not available.

Explosive properties : Not available.

Oxidising properties : Not available.

Particle characteristics

Median particle size : Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : No specific data.

10.6 Hazardous decomposition products

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)] bisoxirane	LD50 Dermal	Rabbit	20 g/kg	-
oxirane, mono[(C10-16-alkyloxy)methyl] derivs	LD50 Oral	Rat	>5000 mg/kg	-
1,4-bis(2,3-epoxypropoxy) butane	LD50 Dermal	Rabbit	1130 mg/kg	-
	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	1134 mg/kg	-
	LD50 Oral	Rat	1410 mg/kg	-
hydrocarbons, aromatic, C9	LD50 Oral	Rat	8400 mg/kg	-
bis-[4-(2,3-epoxipropoxi) phenyl]propane	LD50 Dermal	Rabbit	20 g/kg	-
phenol, methylstyrenated	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>3600 mg/kg	-
Oxirane, mono [(C12-C14-alkyloxy)methyl]	LC50 Inhalation Dusts and mists	Rat	>150 mg/m³	7 hours

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SECTION 11: Toxicological information

derivatives				
	LD50 Oral	Rat	17100 mg/kg	-
pine oil	LD50 Dermal	Rabbit	5 g/kg	-
	LD50 Oral	Rat	2,1 g/kg	-

Conclusion/Summary

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

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)]bisoxirane	N/A	20000	N/A	N/A	N/A
1,4-bis(2,3-epoxypropoxy)butane	1134	1130	N/A	11	N/A
hydrocarbons, aromatic, C9	8400	N/A	N/A	N/A	N/A
bis-[4-(2,3-epoxipropoxi)phenyl]propane	N/A	20000	N/A	N/A	N/A
Oxirane, mono [(C12-C14-alkyloxy)methyl] derivatives	17100	N/A	N/A	N/A	N/A
pine oil	2100	5000	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)] bisoxirane	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Skin - Erythema/Eschar	Rabbit	0,7	4 hours	72 hours
,	Skin - Mild irritant	Rabbit	-	24 hours 500 microliters	-
1,4-bis(2,3-epoxypropoxy) butane	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 10 milligrams	-
hydrocarbons, aromatic, C9	Eyes - Mild irritant	Rabbit	-	24 hours 100 UI	-
bis-[4-(2,3-epoxipropoxi) phenyl]propane	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
Oxirane, mono [(C12-C14-alkyloxy)methyl] derivatives	Eyes - Mild irritant	Rabbit	-	-	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 microliters	-
	Skin - Primary dermal irritation index (PDII)	Rabbit	4,1	24 hours	-
	Skin - Primary dermal irritation index (PDII)	Rabbit	5,75	24 hours	-
pine oil	Skin - Severe irritant	Rabbit	-	24 hours 500 milligrams	-

Conclusion/Summary

Skin : Causes skin irritation.

Eyes : Causes serious eye damage.

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

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SECTION 11: Toxicological information

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)] bisoxirane	skin	Guinea pig	Sensitising
	skin	Mouse	Sensitising
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	skin	Guinea pig	Sensitising
1,4-bis(2,3-epoxypropoxy) butane	skin	Guinea pig	Sensitising
bis-[4-(2,3-epoxipropoxi) phenyl]propane	skin	Guinea pig	Sensitising
, , , ,	skin	Mouse	Sensitising
Oxirane, mono [(C12-C14-alkyloxy)methyl] derivatives	skin	Guinea pig	Sensitising

Conclusion/Summary

Skin

: May cause an allergic skin reaction.

Respiratory

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

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	OECD 476	Experiment: In vitro Subject: Mammalian-Animal	Positive
	OECD 471	Subject: Bacteria	Positive
	OECD 474	Subject: Mammalian-Animal	Negative
Oxirane, mono [(C12-C14-alkyloxy)methyl] derivatives	OECD 476	Experiment: In vitro Subject: Mammalian-Animal	Negative
	OECD 474	Experiment: In vivo Subject: Mammalian-Animal	Negative
	OECD 475	Experiment: In vivo Subject: Mammalian-Animal	Negative
	OECD 471	Subject: Bacteria Metabolic activation: with and without S9 metabolic activation	Positive

Conclusion/Summary

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

Carcinogenicity

It has been observed that the carcinogenic hazard of this product arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung.

Conclusion/Summary

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

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Negative	-	-	Rat	Oral: 540 mg/kg	-
hydrocarbons, aromatic, C9	-	-	Negative	Mammal - species unspecified	Route of exposure unreported	_

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Conclusion/Summary

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

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)] bisoxirane	Positive - Dermal	Rabbit	300 mg/kg	1 days per week
	Positive - Oral	Rabbit	180 mg/kg	1 days per week
	Positive - Oral	Rat	180 mg/kg	1 days per week
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Negative - Route of exposure unreported	Rabbit - Female	>300 mg/kg	-
	Positive - Dermal	Rabbit	300 mg/kg	6 hours; 7 days per week
	Positive - Dermal	Rabbit	100 mg/kg	6 hours; 7 days per week
bis-[4-(2,3-epoxipropoxi) phenyl]propane	Positive - Dermal	Rabbit	300 mg/kg	1 days per week
	Positive - Oral	Rabbit	180 mg/kg	1 days per week
	Positive - Oral	Rat	180 mg/kg	1 days per week
Oxirane, mono [(C12-C14-alkyloxy)methyl] derivatives	Negative - Route of exposure unreported	Rat - Female	>200 mg/kg	-

Conclusion/Summary

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

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
hydrocarbons, aromatic, C9	Category 3		Respiratory tract irritation
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Product/ingredient name	Result
hydrocarbons, aromatic, C9 pine oil	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Information on likely routes : Not available.

of exposure

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

: Causes skin irritation. May cause an allergic skin reaction. **Skin contact**

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:

> pain watering redness

Inhalation : No specific data.

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SECTION 11: Toxicological information

Skin contact: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion: Adverse symptoms may include the following:

stomach pains

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate : Not available.

effects

Potential delayed effects: Not available.

Long term exposure

Potential immediate : Not available.

effects

Potential delayed effects: Not available.

Potential chronic health effects

Not available.

Conclusion/Summary: Based on available data, the classification criteria are not met.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed

to very low levels.

Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Acute EC50 1,8 mg/l	Algae	72 hours
and phenol			
	Acute EC50 2 mg/l	Daphnia spec.	24 hours
	Acute EC50 1,6 mg/l	Daphnia spec.	48 hours
	Acute IC50 >100 mg/l	Bacteria	3 hours
	Acute LC50 0,55 mg/l	Fish	96 hours
	Acute LC50 2 mg/l	Fish	96 hours
	Chronic NOEC 0,3 mg/l	Daphnia spec.	21 days
1,4-bis(2,3-epoxypropoxy) butane	Acute EC50 75 mg/l	Daphnia spec Daphnia magna	24 hours
	Acute LC50 24 mg/l	Fish - Brachydanio rerio	96 hours
	Chronic NOEC 80 mg/l	Algae	72 hours
Oxirane, mono [(C12-C14-alkyloxy)methyl] derivatives	Acute EC50 >100 mg/l	Bacteria	3 hours
	Acute EC50 7,2 mg/l	Daphnia spec.	48 hours
	Acute IC50 844 mg/l	Algae	72 hours

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	Acute LC50 1800 mg/l	Fish	96 hours
	Acute LC50 5000 mg/l	Fish	96 hours
pine oil	Acute EC50 24,5 ppm Fresh water	Daphnia spec Daphnia magna	48 hours
	Acute LC50 18,35 ppm Fresh water	Fish - Oncorhynchus mykiss -	96 hours
		Juvenile (Fledgling, Hatchling,	
		Weanling)	

Conclusion/Summary

: Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)] bisoxirane	OECD 301B	6 to 12 % - Not readily - 28 days	-	-
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	OECD 301B	16 % - Not readily - 28 days	-	-
	-	0 % - Not readily - 28 days	-	-
bis-[4-(2,3-epoxipropoxi)	OECD 301B	6 to 12 % - Not readily - 28	-	-
phenyl]propane		days		
Oxirane, mono [(C12-C14-alkyloxy)methyl] derivatives	OECD 301F	57 to 65 % - Inherent - 7 days	-	-
	OECD 301D	35 % - Not readily - 28 days	_	-

Conclusion/Summary

: Based on available data, the classification criteria are not met. This product has not been tested for biodegradation.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)] bisoxirane	-	-	Not readily
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	-	-	Not readily
hydrocarbons, aromatic, C9	-	-	Readily
bis-[4-(2,3-epoxipropoxi) phenyl]propane	-	-	Not readily
Oxirane, mono [(C12-C14-alkyloxy)methyl] derivatives	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)] bisoxirane	3,84	3 to 31	low
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	2,7	150	low
oxirane, mono[(C10-16-alkyloxy)methyl] derivs	>3	-	low
1,4-bis(2,3-epoxypropoxy) butane	-0,269	-	low
hydrocarbons, aromatic, C9	3.7 to 4.5	10 to 2500	high

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bis-[4-(2,3-epoxipropoxi)	3,84	-	low
phenyl]propane			
phenol, methylstyrenated	3,627	-	low
Oxirane, mono [3,77	160 to 263	low
(C12-C14-alkyloxy)methyl]			
derivatives			

12.4 Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance.

13.1 Waste treatment methods

Product

Methods of disposal

: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste

: Yes.

European waste catalogue (EWC)

Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances

Special precautions

: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

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SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN3082	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PAINT). Marine pollutant	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
14.3 Transport hazard class(es)	9	9	9	© ***
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes.
Additional information	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. Tunnel code (-)	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. Emergency schedules: F-A, S-F	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8. Quantity limitation Passenger and Cargo Aircraft: 450 L. Packaging instructions: 964. Cargo Aircraft Only: 450 L. Packaging instructions: 964. Limited Quantities - Passenger Aircraft: 30 L. Packaging instructions: Y964.

user

14.6 Special precautions for : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments

: Not available.

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SECTION 15: Regulatory information

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

: The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the

product label and/or technical data sheet for further information.

VOC for Ready-for-Use

Mixture

VOC

: IIA/j. Two-pack reactive performance coatings for specific end use such as floors.

EU limit value for this product : 500g/l (2010.) This product contains a maximum of 50 g/l VOC.

Industrial emissions : Not listed (integrated pollution

Air

prevention and control) -

Industrial emissions (integrated pollution prevention and control) -

Water

United Kingdom: Great Britain

UK (GB) /REACH

Annex XIV - List of substances subject to authorisation

: Not listed

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Aerosol dispensers

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category

E2

Annex XVII - Restrictions : Not applicable.

on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

International regulations

Stockholm Convention on Persistent Organic Pollutants

List name	Ingredient name	Status
Not listed.		

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

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SECTION 15: Regulatory information

UNECE Aarhus Protocol on POPs and Heavy Metals

List name	Ingredient name	Status
Not listed.		

CN code : 3208 90 91 00

Inventory list

Australia : Not determined.
Canada : Not determined.
China : Not determined.

Eurasian Economic Union: Russian Federation inventory: Not determined.

Japan : Japan inventory (CSCL): Not determined.

Japan inventory (ISHL): Not determined.

New Zealand : Not determined.

Philippines : At least one component is not listed.

Republic of Korea : At least one component is not listed.

Taiwan : Not determined.
Thailand : Not determined.
Turkey : Not determined.
United States : Not determined.
Viet Nam : Not determined.

15.2 Chemical safety

assessment

: This product contains substances for which Chemical Safety Assessments are still

required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and

acronyms

: ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No.

1272/2008]

DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

N/A = Not available

PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

SGG = Segregation Group

vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Irrit. 2, H315	Expert judgment
Eye Dam. 1, H318	Expert judgment
Skin Sens. 1, H317	Expert judgment
Aquatic Chronic 2, H411	Expert judgment

Full text of abbreviated H statements

United Kingdom: Great Britain

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SECTION 16: Other information

Full text of abbreviated	Н
statements	

H226 Flammable liquid and vapour. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. Harmful in contact with skin. H312 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. H335 May cause respiratory irritation. May cause drowsiness or dizziness. H336 Toxic to aquatic life with long lasting effects. H411 Harmful to aquatic life with long lasting effects. H412 Repeated exposure may cause skin dryness or cracking. EUH066

Full text of classifications [CLP/GHS]

Acute Tox. 4 Aquatic	ACUTE TOXICITY - Category 4 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Chronic 2	LONG-TERM (OFFICIATION AGOATTO TIAZARD - Galegory 2
Aquatic	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Chronic 3	
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE -
	Category 3

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Notice to reader

IMPORTANT NOTE: The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The information contained in this data sheet (as may be amended from time to time) is not intended to be exhaustive and is presented in good faith and believed to be correct as of the date on which it is prepared. It is the user's responsibility to verify that this data sheet is current prior to using the product to which it relates. Persons using the information must make their own determinations as to the suitability of the relevant product for their purposes prior to use. Where those purposes are other than as specifically recommended in this safety data sheet, then the user uses the product at their own risk.

MANUFACTURER'S DISCLAIMER: the conditions, methods and factors affecting the handling, storage, application, use and disposal of the product are not under the control and knowledge of the manufacturer. Therefore the manufacturer does not assume responsibility for any adverse events which may occur in the handling, storage, application, use, misuse or disposal of the product and, so far as permitted by applicable law, the manufacturer expressly disclaims liability for any and all loss, damages and/or expenses arising out of or in any way connected to the storage, handling, use or disposal of the product. Safe handling, storage, use and disposal are the responsibility of the users. Users must comply with all applicable health and safety laws.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.