



SAFETY DATA SHEET

Dac-Hydro-Alu

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

1.1 Product identifier

Product name : Dac-Hydro-Alu
Product description : Paint
Product type : Liquid.
UFI : RCF1-C0YN-400P-3HRW

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

Identified uses	
Industrial Professional	
Uses advised against	Reason
Consumer	Product is not intended for consumer use.

1.3 Details of the supplier of the safety data sheet

RUST-OLEUM EUROPE
Martin Mathys NV, Kolenbergstraat 23, B-3545 Zelem, Belgium
Telephone no.: +32 (0) 13 460 200
Fax no.: +32 (0) 13 460 201

Tor Coatings Limited
Unit 21, White Rose Way, Follingsby Park, Gateshead, Tyne & Wear, NE10 8YX United Kingdom
Telephone no.: +44 (0) 191 4106611
Fax no.: +44 (0) 191 4920125
enquiries@tor-coatings.com

e-mail address of person responsible for this SDS : rpmeurohas@rustoleum.eu

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number Belgium : Poison centre: +32(0)70 245 245
Telephone number Bulgaria : +359 2 9154 409
Telephone number Croatia : +385 1 2348 342
Telephone number Cyprus : 1401
Telephone number Czech Republic : Toxikologické informační středisko: Na Bojišti 1, 120 00 Praha 2, tel. +420 224 919 293 nebo +420 224 915 402 (nepřetržitá lékařská služba).
Telephone number Denmark : Contact the "Giftlinien" on tel. No. 82 12 12 12 (open 24 hours a day). See point 4 on first aid.
Telephone number Estonia : 16662
Telephone number Finland : 0800 147 111
Telephone number France : ORFILA (INRS): +33 (0)1 45 42 59 59 (24/7)
Telephone number Greece : Emergency Telephone Poison Center Nos. Children Aglaia Kyriakou +30 210 7793777

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Telephone number Hungary	: Health Toxicology Information Service (ETTSZ) (+ 36-80) 201-199 (in case of emergency 0-24 h, can be called free of charge).
Telephone number Iceland	: +354 5432222
Telephone number Ireland	: 809 2166 Available 8am to 10pm 7 days per week
Telephone number Italy	: 800183459
Telephone number Latvia	: Toxicology and sepsis clinics Poisoning and Drug Information Center, Hipokrāta Street 2, Riga, Latvia, LV-1038, Phone number: +371 67042473
Telephone number Lithuania	: Poison Information Office 24 hours a day: Phone: +370 (5) 2362052 (www.apsinuodijau.lt/)
Telephone number Luxembourg	: Poison centre: +32(0)70 245 245
Telephone number Malta	: 112
Telephone number Netherlands	: 088-755 8000
Telephone number Norway	: +47 22 59 13 00
Telephone number Portugal	: 112 24/7, free call 800 250 250
Telephone number Romania	: +40 21 318 36 06 (Monday - Friday between 8:00 -15:00, local hour)
Telephone number Slovakia	: NATIONAL TOXICOLOGICAL INFORMATION CENTER - Non-stop 24-hour consultation in case of acute intoxication +421 2 5477 4166
Telephone number Spain	: 915 620 420
Telephone number Sweden	: Poison Information Center: 112
Telephone number Switzerland	: Swiss Toxicological Information Centre (24 h) : 145
Telephone number United Kingdom: Northern Ireland	: 809 2166 Available 8am to 10pm 7 days per week

Supplier

Telephone number Austria	: +43 13649237
Telephone number Belgium	: +32 28083237
Telephone number Bulgaria	: +359 32570104
Telephone number Croatia	: +385 17776920
Telephone number Czech Republic	: +420 228880039
Telephone number Denmark	: +45 69918573
Telephone number Estonia	: +372 6681294
Telephone number Finland	: +358 942419014
Telephone number France	: +33 975181407
Telephone number Germany	: +49 69643508409 / 0800-181-7059
Telephone number Greece	: +30 2111768478
Telephone number Hungary	: +36 18088425
Telephone number Iceland	: +354 539 0655
Telephone number Ireland	: +353 19014670
Telephone number Italy	: +39 0245557031 / 800-789-767
Telephone number Latvia	: +371 66165504
Telephone number Lithuania	: +370 52140238
Telephone number Luxembourg	: 352-20202416
Telephone number Netherlands	: +31 858880596
Telephone number Poland	: +48 223988029
Telephone number Portugal	: +351 308801773

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Telephone number Romania : +40 37 6300026
 Telephone number Slovakia : +421 233057972
 Telephone number Slovenia : +38 618888016
 Telephone number Spain : +34 931768545
 Telephone number Sweden : +46 852503403
 Telephone number Switzerland : +41 435082011
 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 Sens. 1, H317

Aquatic Chronic 3, H412

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.

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

2.2 Label elements

Hazard pictograms :



Signal word : Warning

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

Precautionary statements

General : Not applicable.

Prevention : P280 - Wear protective gloves.

Response : Not applicable.

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
 Octene, hydroformylation products, high-boiling
 Nickel
 Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
 1,2-benzisothiazol-3(2H)-one
 2-octyl-2H-isothiazol-3-one

Supplemental label elements : EUH211 - Warning! Hazardous respirable droplets may be formed when sprayed.
 Do not breathe spray or mist.

Supplemental label elements : Not applicable.

Supplemental label elements : Detergents - Regulation (EC) No 907/2006

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SECTION 2: Hazards identification

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 fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

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

Europe

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] bisoxirane	REACH #: 01-2119456619-26 EC: 216-823-5 CAS: 1675-54-3 Index: 603-073-00-2	<1	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]
ammonia	REACH #: 01-2119488876-14 EC: 215-647-6 CAS: 1336-21-6 Index: 007-001-01-2	≤0,3	Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	STOT SE 3, H335: C ≥ 5% M [Acute] = 1	[1]
Octene, hydroformylation products, high-boiling	REACH #: 01-2119486463-31 EC: 271-237-7 CAS: 68526-89-6	≤0,3	Skin Sens. 1B, H317	-	[1]
Nickel	EC: 231-111-4 CAS: 7440-02-0 Index: 028-002-00-7	≤0,3	Skin Sens. 1, H317 Carc. 2, H351 STOT RE 1, H372 Aquatic Chronic 3, H412	-	[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	<0,1	Skin Irrit. 2, H315 Skin Sens. 1A, H317 Aquatic Chronic 2, H411	-	[1]
1,2-benzisothiazol-3(2H)-one	REACH #: 01-2120761540-60 EC: 220-120-9	<0,036	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315	ATE [Oral] = 450 mg/kg ATE [Inhalation]	[1]

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SECTION 3: Composition/information on ingredients

pyrithione zinc	CAS: 2634-33-5 Index: 613-088-00-6 REACH #: 01-2119511196-46 EC: 236-671-3 CAS: 13463-41-7	<0,01	Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Acute Tox. 3, H301 Acute Tox. 2, H330 Eye Dam. 1, H318 Repr. 1B, H360D STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	(dusts and mists)] = 0,21 mg/l Skin Sens. 1, H317: C ≥ 0,036% M [Acute] = 1 M [Chronic] = 1 ATE [Oral] = 221 mg/kg ATE [Inhalation (dusts and mists)] = 0,14 mg/l M [Acute] = 1000 M [Chronic] = 10	[1]
2-octyl-2H-isothiazol-3-one	REACH #: 17-2119390467-28 EC: 247-761-7 CAS: 26530-20-1 Index: 613-112-00-5	≤0,013	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Corr. 1, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 EUH071	ATE [Oral] = 125 mg/kg ATE [Dermal] = 311 mg/kg ATE [Inhalation (dusts and mists)] = 0,27 mg/l Skin Sens. 1, H317: C ≥ 0,0015% M [Acute] = 100 M [Chronic] = 100	[1]
terbutryn	EC: 212-950-5 CAS: 886-50-0	≤0,011	Acute Tox. 4, H302 Skin Sens. 1B, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 See Section 16 for the full text of the H statements declared above.	ATE [Oral] = 500 mg/kg M [Acute] = 100 M [Chronic] = 100	[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

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**

: 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. Get medical attention if irritation occurs.

Inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Get medical attention if adverse health effects persist or are severe. 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.

SECTION 4: First aid measures

- Skin contact** : 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. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : 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. Get medical attention if adverse health effects persist or are severe. 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.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. 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** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

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. In case of fire, use water spray (fog), foam, dry chemical or CO₂.
- Unsuitable extinguishing media** : Do not use water jet.

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 harmful 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
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.

SECTION 5: Firefighting measures

- 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.
- Additional information** : No unusual hazard if involved in a fire.

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. Avoid breathing 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.

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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. 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.

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 ingest. Avoid breathing vapour or mist. Avoid release to the environment. 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.

SECTION 7: Handling and storage

7.2 Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 4 to 26°C (39,2 to 78,8°F). 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. 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.

7.3 Specific end use(s)

- Recommendations : Not available.
- Industrial sector specific solutions : Not available.

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 / Biological exposure indices

- Recommended monitoring procedures : 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
ammonia	DNEL	Short term Inhalation	36 mg/m³	Workers	Local
	DNEL	Long term Inhalation	14 mg/m³	Workers	Local
	DNEL	Short term Inhalation	47,6 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	47,6 mg/m³	Workers	Systemic
	DNEL	Short term Dermal	6,8 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	6,8 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2,8 mg/m³	General population	Local
	DNEL	Long term Inhalation	23,8 mg/m³	General population	Systemic
	DNEL	Short term Dermal	68 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	6,8 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	6,8 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	28 mg/m³	Workers	Local
	DNEL	Long term Inhalation	14 mg/m³	Workers	Local

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SECTION 8: Exposure controls/personal protection

Octene, hydroformylation products, high-boiling	DNEL	Long term Oral	25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	50 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	87 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	116,7 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	411,4 mg/m ³	Workers	Systemic
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	DNEL	Short term Dermal	83 mg/cm ²	Workers	Local
	DNEL	Long term Dermal	104,15 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	29,39 mg/m ³	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
1,2-benzisothiazol-3(2H)-one	DNEL	Long term Oral	6,25 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
ammonia	Fresh water	0,0011 mg/l	-
	Marine water	0,0011 mg/l	-
	Fresh water	0,165 mg/l	-
	Marine water	0,0165 mg/l	-
	Sewage Treatment Plant	8,58 mg/l	-
Octene, hydroformylation products, high-boiling	Fresh water sediment	0,0165 mg/kg	-
	Soil	32,3 mg/kg	-
	Fresh water	0,1 mg/l	-
	Marine water	0,01 mg/l	-
	Sewage Treatment Plant	100 mg/l	-
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Fresh water sediment	4000 mg/kg	-
	Marine water sediment	400 mg/kg	-
	Soil	1,25 mg/kg	-
	Fresh water	0,003 mg/l	-
	Marine water	0,0003 mg/l	-
1,2-benzisothiazol-3(2H)-one	Sewage Treatment Plant	10 mg/l	-
	Fresh water sediment	0,294 mg/kg dwt	-
	Marine water sediment	0,0294 mg/kg dwt	-
	Soil	0,237 mg/kg dwt	-
	Fresh water	0,00403 mg/l	-

SECTION 8: Exposure controls/personal protection

pyrithione zinc	Marine water	0,000403 mg/l	-
	Sewage Treatment Plant	1,03 mg/l	-
	Fresh water sediment	0,0499 mg/kg dwt	-
	Marine water sediment	0,00499 mg/kg dwt	-
	Soil	3 mg/kg dwt	-
	Fresh water	0,00009 mg/l	-
	Marine water	0,00009 mg/l	-
	Sewage Treatment Plant	0,01 mg/l	-
	Marine water sediment	0,0095 mg/kg	-
	Fresh water sediment	0,0095 mg/kg	-

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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: safety glasses with side-shields.

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.

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): nitrile rubber (0.5mm)

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 included in the user's risk assessment.

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: (EN 467) Wear overalls or long sleeved shirt.

SECTION 8: Exposure controls/personal protection

- 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 filter (Type A) particulate filter (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** : Silver.
- Odour** : Characteristic.
- Odour threshold** : Not available.
- Melting point/freezing point** : 0°C [Literature]
- Initial boiling point and boiling range** : >100°C (>212°F) [Literature]
- Flammability (solid, gas)** : Non-flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts. Non-flammable but will burn on prolonged exposure to flame or high temperature.
- Lower and upper explosion limit** : Not available.
- Flash point** : Closed cup: >100°C (>212°F) [Literature] [Product does not sustain combustion.]
- Auto-ignition temperature** : Not relevant due to nature of the product.
- Decomposition temperature** : Not available.
- pH** : 8 to 9 [Conc. (% w/w): 100%] [OECD 122]
- pH : Justification** : Not available.
- Viscosity** : Dynamic (room temperature): 5000 to 6000 mPa·s [ISO EN BS DIN 3219]
Kinematic (room temperature): 4505 to 5555 mm²/s [calculated.]
Kinematic (40°C): >20,5 mm²/s [calculated.]
- Solubility(ies)** :

Media	Result
cold water	Soluble
hot water	Soluble
methanol	Very slightly soluble
acetone	Very slightly soluble

- Solubility in water** : Not available.
- Partition coefficient: n-octanol/ water** : Not applicable.
- Vapour pressure** : 2,3 kPa (17,25 mm Hg) [Literature]
- Evaporation rate** : <1 (butyl acetate = 1)
- Relative density** : Not available.
- Density** : 1,08 to 1,11 g/cm³ [20°C (68°F)] [DIN 53217]

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SECTION 9: Physical and chemical properties

Vapour density	: >1 [Air = 1]
Explosive properties	: Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge and heat. No unusual hazard if involved in a fire.
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 ammonia	LD50 Dermal	Rabbit	20 g/kg	-
	LC50 Inhalation Vapour	Human/30 min	5000 mg/m³	0,5 hours
	LC50 Inhalation Vapour	Rat	7035 mg/m³	30 minutes
	LC50 Inhalation Vapour	Rat	2000 mg/m³	4 hours
1,2-benzisothiazol-3(2H)-one	LD50 Oral	Rat	350 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	0,11 mg/l	4 hours
	LC50 Inhalation Dusts and mists	Rat - Male, Female	0,5 mg/l	4 hours
	LD50 Oral	Rat - Male	490 mg/kg	-
pyrithione zinc	LC50 Inhalation Dusts and mists	Rat	140 mg/m³	4 hours
	LD50 Dermal	Rabbit	100 mg/kg	-
	LD50 Oral	Rat	177 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	0,27 mg/l	4 hours
2-octyl-2H-isothiazol-3-one	LD50 Oral	Rat	248 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>2200 mg/l	4 hours
	LD50 Dermal	Rabbit	>10200 mg/kg	-
	LD50 Oral	Rat	2045 mg/kg	-

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

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SECTION 11: Toxicological information

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
1,2-benzisothiazol-3(2H)-one	450	N/A	N/A	N/A	0,21
pyrithione zinc	221	N/A	N/A	N/A	0,14
2-octyl-2H-isothiazol-3-one	125	311	N/A	N/A	0,27
terbutryn	500	N/A	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	-
ammonia	Eyes - Severe irritant	Rabbit	-	0,5 minutes 1 milligrams	-
	Eyes - Severe irritant	Rabbit	-	250 Micrograms	-
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	-
2-octyl-2H-isothiazol-3-one	Eyes - Severe irritant	Rabbit	-	-	-
terbutryn	Eyes - Moderate irritant	Rabbit	-	76 milligrams	-
	Skin - Mild irritant	Rabbit	-	380 milligrams	-

- Skin** : Based on available data, the classification criteria are not met.
- Eyes** : Based on available data, the classification criteria are not met.
- Respiratory** : Based on available data, the classification criteria are not met.

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
1,2-benzisothiazol-3(2H)-one	skin	Guinea pig	Sensitising
2-octyl-2H-isothiazol-3-one	skin	Rat	Sensitising

- Skin** : May cause an allergic skin reaction.
- Respiratory** : Based on available data, the classification criteria are not met.

Mutagenicity

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SECTION 11: Toxicological information

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

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

Carcinogenicity

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	-

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

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
ammonia	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Nickel pyrithione zinc	Category 1	-	-
	Category 1	-	-

Aspiration hazard

Not available.

Information on likely routes of exposure : Routes of entry anticipated: Oral, Inhalation, Eyes.
Routes of entry not anticipated: Dermal.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

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SECTION 11: Toxicological information

Inhalation	: No known significant effects or critical hazards.
Skin contact	: May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: irritation redness
Ingestion	: No specific data.

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

Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Long term exposure

Potential immediate effects	: Not available.
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
ammonia	Acute EC50 110 mg/l	Daphnia spec.	48 hours
	Acute LC50 17 mg/l	Fish	24 hours
	Acute LC50 7 mg/l	Fish	48 hours
	Acute LC50 0,89 mg/l	Fish	96 hours
	Acute LC50 15000 µg/l Fresh water	Fish - <i>Gambusia affinis</i> - Adult	96 hours
	Acute NOEC 0,06 mg/l	Fish - <i>Lctalurus punctatus</i>	27 days
	Chronic NOEC 0,42 mg/l	Daphnia spec.	21 days
	Chronic NOEC 0,79 mg/l	Daphnia spec.	96 hours
	Acute EC50 2 ppm Marine water	Algae - <i>Macrocystis pyrifera</i> - Young	4 days
		Aquatic plants - <i>Lemna minor</i>	4 days
Nickel	Acute EC50 450 µg/l Fresh water	Daphnia spec. - <i>Daphnia magna</i>	48 hours
	Acute EC50 1000 µg/l Marine water		

SECTION 12: Ecological information

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Acute IC50 0,31 mg/l Marine water	Crustaceans - <i>Americamysis bahia</i> - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 47,5 ng/L Fresh water	Fish - <i>Heteropneustes fossilis</i>	96 hours
	Chronic NOEC 100 mg/l Marine water	Algae - <i>Glenodinium halli</i>	72 hours
	Chronic NOEC 3,5 µg/l Fresh water	Fish - <i>Cyprinus carpio</i>	4 weeks
1,2-benzisothiazol-3(2H)-one	Acute EC50 1,8 mg/l	Algae	72 hours
	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
pyrithione zinc	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
	Acute EC50 0,11 mg/l	Algae	72 hours
2-octyl-2H-isothiazol-3-one	Acute EC50 0,067 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours
	Acute EC50 0,9893 mg/l Marine water	Crustaceans - <i>Opossum Shrimp</i>	96 hours
	Acute EC50 2,94 mg/l Fresh water	Daphnia spec.	48 hours
	Acute LC50 2,18 mg/l Fresh water	Fish	96 hours
terbutryn	Acute LC50 8 to 13 mg/l	Fish - <i>Alburnus alburnus</i>	96 hours
	Acute LC50 1,6 to 2,8 ppm Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
	Chronic NOEC 90 mg/l	Aquatic plants - <i>Phaseolus vulgaris</i>	20 days
	Chronic NOEC 1,2 mg/l	Daphnia spec.	21 days
pyrithione zinc	Chronic NOEC 0,21 mg/l	Fish	28 days
	Chronic NOEL 0,0403 mg/l	Algae	72 hours
	Acute EC50 0,51 µg/l Marine water	Algae - <i>Thalassiosira pseudonana</i>	96 hours
	Acute EC50 80 µg/l Fresh water	Crustaceans - <i>Chydorus sphaericus</i>	48 hours
2-octyl-2H-isothiazol-3-one	Acute EC50 38 µg/l Fresh water	Crustaceans - <i>Ilyocypris dentifera</i>	48 hours
	Acute EC50 8,25 ppb Fresh water	Daphnia spec. - <i>Daphnia magna</i>	48 hours
	Acute EC50 61 µg/l Fresh water	Daphnia spec. - <i>Daphnia magna</i> - Nauplii	48 hours
	Acute LC50 2,68 ppb Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
terbutryn	Chronic EC10 0,36 µg/l Marine water	Algae - <i>Thalassiosira pseudonana</i>	96 hours
	Chronic NOEC 2,7 ppb Marine water	Daphnia spec. - <i>Daphnia magna</i>	21 days
	Acute EC50 0,32 to 0,834 mg/l Fresh water	Daphnia spec. - <i>Daphnia magna</i>	48 hours
	Acute IC50 0,084 mg/l	Algae	72 hours
terbutryn	Acute LC50 0,0655 to 0,104 mg/l Fresh water	Fish	96 hours
	Acute LC50 0,14 to 0,202 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Acute EC50 0,1 µg/l Fresh water	Algae - <i>Fragilaria capucina</i> ssp. <i>rumpens</i>	96 hours
	Acute EC50 2 µg/l Fresh water	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours
terbutryn	Acute EC50 2,66 ppm Fresh water	Daphnia spec. - <i>Daphnia magna</i>	48 hours
	Acute IC50 0,0055 mg/l	Algae	72 hours
	Acute LC50 579,3 mg/l Fresh water	Crustaceans - <i>Pacifastacus leniusculus</i> - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 1,8 to 1400 µg/l Fresh water	Fish - <i>Carassius carassius</i>	96 hours
terbutryn	Acute LC50 0,82 ppm Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
	Chronic EC10 0,015 µg/l Fresh water	Algae - <i>Fragilaria capucina</i> ssp.	96 hours

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SECTION 12: Ecological information

rumpens

Conclusion/Summary : Harmful 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	-	-
1,2-benzisothiazol-3(2H)-one	-	0 % - Not readily - 28 days	-	-
2-octyl-2H-isothiazol-3-one	OECD 303A	>90 % - Readily - 1 days	-	-
	OECD 303A	>80 % - Readily - 4 days	-	-
	OECD 309	90 % - Readily - 4 days	0,01 to 0,1 mg/l	-
	OECD 309	50 % - Readily - 2 days	0,01 to 0,1 mg/l	-

Conclusion/Summary : 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
ammonia	-	-	Readily
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	-	-	Not readily
1,2-benzisothiazol-3(2H)-one	-	-	Readily
2-octyl-2H-isothiazol-3-one	Fresh water 2 days, 20°C	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] bisoxirane	3,84	3 to 31	Low
ammonia	-1,3	-	Low
Octene, hydroformylation products, high-boiling	>3.8	-	High
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	2,7	150	Low
1,2-benzisothiazol-3(2H)-one	0,64	-	Low
pyrithione zinc	0,9	11	Low
2-octyl-2H-isothiazol-3-one	2,9	-	Low
terbutryn	3,74	-	Low

12.4 Mobility in soil**Soil/water partition coefficient (K_{oc})** : Not available.**Mobility** : Nonvolatile liquid.**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.

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SECTION 12: Ecological information

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 15*	aqueous sludges containing paint or 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

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

14.6 Special precautions for user : **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.

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SECTION 14: Transport information

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
Dac-Hydro-Alu Nickel	≥90 ≤0,3	3 27

Labelling : Not applicable.

Other EU regulations

VOC : 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 : 2004/42/EC - IIA/i: 140g/l (2010). ≤ 70g/l VOC.

Industrial emissions (integrated pollution prevention and control) - Air : Listed

Industrial emissions (integrated pollution prevention and control) - Water : Listed

Explosive precursors : Not applicable.

EU - Ozone depleting substances

Not listed.

Prior Informed Consent (PIC) (649/2012/EC)

Not listed.

Persistent Organic Pollutants (850/2004/EC)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

Austria

VbF class : Not regulated.

Storage code : LGK10

Classification, packaging and labelling : Not available.

Limitation of the use of organic solvents : Permitted.

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SECTION 15: Regulatory information

- Waste catalogue** : 55513
- References** : Federal Law Gazette Nr. 240/1991 - Regulation on Combustible liquids - Warning Classes
Ministry of the Economy and Labor 2003 - GKV 2003 - Decree 429/2011
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

Belgium

Book VI carcinogenic agents annex VI.2-1 - VI.2-3

Ingredient name	Status
Nickel	Listed
Aldéhyde acétique	Listed

- References** : Royal Decree of 2 December 1993 concerning the protection of workers against the risks related to exposure to carcinogens and mutagens at work
Royal Decree 374/2001, protection of the health and safety of workers from the risks related to chemical agents at work
Royal Decree 396/2006, which establishes minimum health and safety requirements for the protection of workers from risk of exposure to asbestos at the workplace.
Royal Decree of 17 May 2007, amending the Royal Decree of 11 March 2002 relating to the protection of the health and the safety of workers against the risks related to chemical agents in the workplace, Belgium State Gazette 2007-2327 of 7 June 2007.
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

Bulgaria

- References** : Ordinance No. 9 of 4 August 2006 on the protection of workers from the risks related to exposure to asbestos at work
Ordinance No. 13 of 30 December 2003 on the protection of workers from the risks related to exposure to chemical agents at work
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

Croatia

- References** : Regulation about Maximum Exposure Limits of harmful substances in the atmosphere of the working environment NN 92/93
Regulation about application of personal safety equipment NN 39/06
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

Cyprus

- References** : -

Czech Republic

- Storage code** : IV

SECTION 15: Regulatory information

- References** : Decree of the government no. 441/2004 Sb., which amends Decree of the government no. 178/2001 Sb., which implements the health and safety at work conditions, according to the Decree of the government no. 523/2002 Sb.
Decree of the government no. 194/2001 Sb., which implements the technical requirements for aerosol dispensers
EC Regulation 1907/2006 (REACH), EC Regulation 1272/2008 (CLP), EC Regulation 648/2004 on detergents, Act No. 350/2011 Coll. on chemical substances and chemical mixtures, Act No. 185/2001 Coll. on waste, Decree No. 381/2001 Coll., Catalog of waste, Decree No. 383/2001 Coll., on details of waste management, Act No. 258/2000 Coll. on public health, Government Regulation No. 361/2007 Coll., establishing the conditions for health protection at work, Act No. 201/2012 Coll., on air protection and related decrees, Act No. 477/2001 Coll. on packaging, Decree No. 48/1982 Coll., which establishes basic requirements to ensure the safety of work and technical equipment, communication No. 8/2013 Coll. m.s. (ADR), notice No. 23/2013 Coll. (RID), Czech state standards
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Denmark**Executive Order No. 1795/2015**

Ingredient name	Annex I Section A	Annex I Section B
titanium dioxide	Listed	-
Nickel	Listed	Carc. 2, H351

Product registration number : Not available.

Fire class : IV-2

Denmark – Cancer risks : Listed

MAL-code : 00-1

Protection based on MAL : **According to the regulations on work involving coded products, the following stipulations apply to the use of personal protective equipment:**

General: Gloves must be worn for all work that may result in soiling. Apron/coveralls/protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. A face shield must be worn in work involving spattering if a full mask is not required. In this case, other recommended use of eye protection is not required.

In all spraying operations in which there is return spray, the following must be worn: respiratory protection and arm protectors/apron/coveralls/protective clothing as appropriate or as instructed.

MAL-code: 00-1

Application: When spraying in existing* spray booths, if the operator is outside the spray zone.

- Arm protectors must be worn.

During all spraying where atomisation occurs in cabins or spray booths where the operator is inside the spray zone and during spraying outside a closed facility, cabin or booth.

- Full mask with combined filter, coveralls and hood must be worn.

SECTION 15: Regulatory information

Drying: Items for drying/drying ovens that are temporarily placed on such things as rack trolleys, etc, must be equipped with a mechanical exhaust system to prevent fumes from wet items from passing through workers' inhalation zone.

Polishing: When polishing treated surfaces, a mask with dust filter must be worn. When machine grinding, eye protection must be worn. Work gloves must always be worn.

Caution The regulations contain other stipulations in addition to the above.

*See Regulations.

MAL-code for ready-for-use mixture : Not applicable.

Protection based on MAL for ready-for-use mixture : Not applicable.

Not applicable.

Not applicable.

Low-boiling liquids : Not applicable.

Restrictions on use : Not to be used by professional users below 18 years of age. See the National Working Environment Authorities Executive Order regarding Young People At Work.

List of undesirable substances : Not listed

Carcinogenic waste : Waste containers must be labeled: Contains a substance or substances regulated by Danish working environment legislation on cancer risks.

Waste card number : 03.21

Waste group : H

Remark : Not available.

References : Executive Order no. 301 of 13 May 1993 "Executive order on the determination of code numbers". (MAL code)
Executive Order no. 302 of 13 May 1993 "Executive Order on work with products with code numbers". (MAL code)
Executive Order no. 559 of 4 July 2002 "Executive Order on special duties for manufacturers, suppliers and importers etc. of substances and materials according to the law on the working environment".
Executive Order no. 908 of 27 September 2005 "Executive Order on measures for prevention of cancer risk when working with substances and materials".
Executive Order no. 239 of 6 April 2005 "Executive Order on young people's work".
Danish Working Environment Authority Guidance No. C.0.1. of August 2007 "Trace limit value list for substances and materials".
Executive Order no. 571 of 29 November 1984 "Executive Order on use of propellants and solvents in aerosol containers".
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

Estonia

References : Regulation of the Estonian Government of 02.02.2000 No. 32 Occupational health and occupational safety requirements for asbestos.
Regulation of the Estonian Government of 15.12.2005 No. 309 Occupational health and occupational safety requirements for carcinogenic and mutagenic substances.
Regulation of the Estonian Government of 18.09.2001 No. 293 Occupational exposure limits of chemicals.
Regulation of the Estonian Government of 20.03.2001 No. 105 Occupational health and occupational safety requirements for handling dangerous chemicals and

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materials.

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878

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Finland

NACE

: Not available.

UC62

: Not available.

References

: Regulation of the Ministry of Social Affairs and Health on occupational exposure limit values 795/2007

Aerosol regulation amendment 805/1994

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878

REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

France

Social Security Code, Articles L 461-1 to L 461-7

: Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol RG 51

Classified installations for environmental protection

: Not available.

Reinforced medical surveillance

: Decree n ° 2012-135 of January 30, 2012 relating to the organization of occupational medicine: not applicable

Remark

: Not available.

References

: Tables of anticipated professional diseases according to article R461-3 of the labour code

Labour code: Regulatory and recommended occupational exposure limits: Art. R231-55 to Art. R231-55-3.

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878

REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

Germany

Storage class (TRGS 510) : 10

Hazardous incident ordinance

This product is not controlled under the Germany Hazardous Incident Ordinance.

Named substances

Name	Reference number

Danger criteria

Category	Reference number

Hazard class for water : 3

Technical instruction on air quality control (TA Luft)

SECTION 15: Regulatory information

Number [Class]	Description
5.2.1	Total dust
5.2.2 [II]	Dusty inorganic substances
5.2.2 [III]	Dusty inorganic substances
5.2.5	Organic substances
5.2.5 [I]	Organic substances
5.2.8	Odorants
5.2.10	Soil polluting substances

AOX : The product contains organically bound halogens and can contribute to the AOX value in waste water.

References : Decree No. 44/2000 (XII.27.) EüM of the Ministry of Health on detailed arrangements for certain procedures, activities relating to dangerous substances and dangerous preparations plus amendments
Decree No. 25/2000 (IX.30.) EüM of the Ministry of Health on chemical safety at work plus amendments
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

Greece

References : Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878

Hungary

References : Regulation on the restrictions on the marketing and use of certain dangerous substances, preparations and articles according to the Chemicals Law
Technical Rules for Hazardous Substances (TRGS): Occupational Exposure Limits (TRGS 900)
Technical Rules for Hazardous Substances (TRGS): Directory of carcinogenic, mutagenic and reprotoxic substances (TRGS 905)
First General Administrative Regulation Pertaining to the Federal Immission Control Act (Technical Instructions on Air Quality Control – TA Luft)
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

Ireland

References : Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001 (S.I. No. 619 of 2001)
Safety, Health and Welfare at Work (Carcinogens) Regulations 2001 (S.I. No. 78 of 2001)
Safety, Health and Welfare at Work (General Application) Regulations 2007
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

Italy

D.Lgs. 152/06 : Not determined.

References : Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878

Latvia

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References : Regulation of Cabinet of Ministers No. 325 of 15 May 2007 "Labour protection requirements for contact with chemical substances in the workplace"
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

Lithuania

References : Regulation about Maximum Exposure Limits of harmful substances in the atmosphere of the working environment NN 92/93
Regulation about application of personal safety equipment NN 39/06
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

Luxembourg

References : -

Malta

References : -

Netherlands

Ministry of Social Affairs and Employment (SZW) - Carcinogenic substances and processes, mutagenic or reprotoxic substances

Ingredient name	Carcinogen	Mutagen	Reproductive toxicity - Fertility	Reproductive toxicity - Development	Harmful via breastfeeding
chromium(VI) compounds (except for ammonium chromate, ammonium dichromate, calcium chromate, chromium trioxide; chromium(VI) oxide, chromic acid, dichrome tris (chromate), potassium dichromate, sodium dichromate, sodium chromate)	-	-	Fertility 2	Development 1B	-

Water Discharge Policy (ABM) : Z(1) Non biodegradable substances with hazardous properties for humans and the environment (carcinogenicity/ mutagenicity/ reprotoxicity/ bioaccumulative potential/ toxicity or persistence). Decontamination effort: Z

Remark : Not available.

References : Water Discharge Policy (ABM)
Netherlands Emission Guidelines for Air (NeR)
List of carcinogenic substances and processes according to article 4.11 of the Working Conditions Act; Health and Safety Act
List of mutagenic substances and processes according to article 4.11 of the Working Conditions Act; Health and Safety Act
Non-limited list of reprotoxic substances (with additional registration requirement) according to article 4..2a(2) of the Working Conditions Act; Health and Safety Act
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

Poland

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- References** : Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC
- Portugal**
- References** : Occupational Health and Safety. Professional exposure limit values for chemical agents (NP 1796 2007)
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC
- Romania**
- References** : Order 595-2002 approving technical Regulations regarding spray aerosol containers
Governmental Decision 1218-2006 on establishing the minimum requirements of labour safety and health for ensuring the protection of workers against risks connected to the presence of chemical agents
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC
- Slovakia**
- References** : Government regulation no. 45/2002 Consolidated to 16 January 2002 on the protection of health at work from chemical agents
Government Regulation 301/2007 on the protection of workers from risks associated with exposure to carcinogenic and mutagenic factors
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC
- Slovenia**
- References** : Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC
- Spain**
- References** : Royal Decree 374/2001, protection of the health and safety of workers from the risks related to chemical agents at work
ROYAL DECREE 2549/1994. Regulation on aerosol dispensers
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC
- Sweden**
- Ordinance on Thermoset Plastics** : Not applicable.
- Thermoset plastic waste** : Not available.
- Waste group** : 080115*
- Flammable liquid class (SRVFS 2005:10)** : Not applicable.

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References : Thermosetting plastics AFS 2005:18
 Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
 REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

International regulations

Stockholm Convention on Persistent Organic Pollutants

List name	Ingredient name	Status
Not listed.		

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

List name	Ingredient name	Status
Not listed.		

CN code : 3209 10 00 00

Inventory list

Australia : At least one component is not listed.
Canada : At least one component is not listed.
China : At least one component is not listed.
Eurasian Economic Union : **Russian Federation inventory**: Not determined.
Japan : **Japan inventory (CSCL)**: At least one component is not listed.
Japan inventory (ISHL): Not determined.
New Zealand : At least one component is not listed.
Philippines : At least one component is not listed.
Republic of Korea : Not determined.
Taiwan : At least one component is not listed.
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]

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Classification	Justification
Skin Sens. 1, H317 Aquatic Chronic 3, H412	Calculation method Calculation method

Full text of abbreviated H statements

Europe

Full text of abbreviated H statements	:	H301 H302 H311 H314 H315 H317 H318 H319 H330 H335 H351 H360D H372 H400 H410 H411 H412 EUH071	Toxic if swallowed. Harmful if swallowed. Toxic in contact with skin. Causes severe skin burns and eye damage. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Causes serious eye irritation. Fatal if inhaled. May cause respiratory irritation. Suspected of causing cancer. May damage the unborn child. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects. Corrosive to the respiratory tract.
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Full text of classifications [CLP/GHS]	:	Acute Tox. 2 Acute Tox. 3 Acute Tox. 4 Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Aquatic Chronic 3 Carc. 2 Eye Dam. 1 Eye Irrit. 2 Repr. 1B Skin Corr. 1 Skin Corr. 1B Skin Irrit. 2 Skin Sens. 1 Skin Sens. 1A Skin Sens. 1B STOT RE 1 STOT SE 3	ACUTE TOXICITY - Category 2 ACUTE TOXICITY - Category 3 ACUTE TOXICITY - Category 4 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 CARCINOGENICITY - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 REPRODUCTIVE TOXICITY - Category 1B SKIN CORROSION/IRRITATION - Category 1 SKIN CORROSION/IRRITATION - Category 1B SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITISATION - Category 1 SKIN SENSITISATION - Category 1A SKIN SENSITISATION - Category 1B SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3
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Notice to reader

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SECTION 16: Other information

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.