

## Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH

### SECTION 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Code: **357**  
Product name: **SW SOLID (B)**  
UFI: **2D50-705H-5004-RDP4**

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

Intended use: **WATER-BASED EPOXY IMPREGNATING AGENT**

#### 1.3. Details of the supplier of the safety data sheet

Name: **NORD RESINE S.p.A.**  
Full address: **Via Fornace Vecchia, 79**  
District and Country: **31058 Susegana (TV) Italia**  
Tel.: **+39 0438-437511**  
Fax: **+39 0438-435155**  
e-mail address of the competent person responsible for the Safety Data Sheet: **annabreda@nordresine.com**  
Supplier: **NORD RESINE S.p.A.**

#### 1.4. Emergency telephone number

For urgent inquiries refer to: **+39 0438 437511**

### SECTION 2. Hazards identification

#### 2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

##### Hazard classification and indication:

Skin corrosion, category 1C	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words: **Danger**

Hazard statements:

### SECTION 2. Hazards identification ... / >>

<b>H314</b>	Causes severe skin burns and eye damage.
<b>H317</b>	May cause an allergic skin reaction.
<b>H411</b>	Toxic to aquatic life with long lasting effects.

#### Precautionary statements:

<b>P260</b>	Do not breathe dust / fume / gas / mist / vapours / spray.
<b>P305+P351+P338</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>P303+P361+P353</b>	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
<b>P280</b>	Wear protective gloves/ protective clothing / eye protection / face protection.
<b>P310</b>	Immediately call a POISON CENTER / doctor.
<b>P264</b>	Wash thoroughly with water and soap after handling.

<b>Contains:</b>	Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia Phenol, 4,4'-(1-methylethylidene)bis-,polymer with N-(2-aminoethyl)-1,2-ethanediamine, (chloromethyl)oxirane, alpha-hydro-omega hydroxypoly[ oxiranylmethyl ether, and methyloxirane polymer with oxirane 2-aminopropyl methyl ether Amines, polyethylenepoly-, tetraethylenepentamine fraction Formaldehyde, polymer with N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]-1,2-ethanediamine, 2, 2'-[1,4-butanediylbis(oxymethyle)] DIETHYLENETRIAMINE
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#### VOC (Directive 2004/42/EC) :

Two-pack reactive performance coatings for specific end use such as floors.

VOC given in g/litre of product in a ready-to-use condition :

Limit value:	35,39
- Catalysed with :	140,00
	200,00 %
	SW SOLID (A)

### 2.3. Other hazards

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

The product does not contain substances with endocrine disrupting properties in concentration  $\geq$  0.1%.

### SECTION 3. Composition/information on ingredients

#### 3.2. Mixtures

Contains:

Identification **x = Conc. %** **Classification (EC) 1272/2008 (CLP)**

**Formaldehyde, polymer with N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]-1,2-ethanediamine, 2, 2'-[1,4-butanediylbis(oxymethyle)]**

INDEX  $25 \leq x < 35$  **Skin Sens. 1 H317, Aquatic Chronic 2 H411**

EC 885-937-0

CAS 180583-06-6

**Phenol, 4,4'-(1-methylethylidene)bis-,polymer with N-(2-aminoethyl)-1,2-ethanediamine, (chloromethyl)oxirane, alpha-hydro-omega hydroxypoly[ oxiranylmethyl ether, and methyloxirane polymer with oxirane 2-aminopropyl methyl ether**

INDEX  $25 \leq x < 35$  **Eye Dam. 1 H318**

EC

CAS 2588261-05-4

**Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia**

INDEX  $1 \leq x < 3$  **Skin Corr. 1C H314, Eye Dam. 1 H318, Aquatic Chronic 3 H412**

EC 618-561-0

CAS 9046-10-0

REACH Reg. 01-2119557899-12

**Amines, polyethylenepoly-, tetraethylenepentamine fraction**

INDEX  $1 \leq x < 2,5$  **Acute Tox. 4 H302, Acute Tox. 4 H312, Skin Corr. 1B H314, Eye Dam. 1**

**H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411**

**STA Oral: 500 mg/kg, LD50 Dermal: 1260 mg/kg**

EC 292-587-7

CAS 90640-66-7

REACH Reg. 01-2119487290-37

**SECTION 3. Composition/information on ingredients** ... / >>**1-METHOXY-2-PROPANOL**INDEX 603-064-00-3  $0 \leq x < 0,5$ 

EC 203-539-1

CAS 107-98-2

REACH Reg. 01-2119457435-35

Flam. Liq. 3 H226, STOT SE 3 H336

**DIETHYLENETRIAMINE**INDEX 612-058-00-X  $0 \leq x < 0,5$ 

EC 203-865-4

CAS 111-40-0

REACH Reg. 01-2119473793-27

Acute Tox. 2 H330, Acute Tox. 4 H302, Acute Tox. 4 H312, Skin Corr. 1B  
H314, Eye Dam. 1 H318, STOT SE 3 H335, Skin Sens. 1 H317LD50 Oral: 1553 mg/kg, LD50 Dermal: 1045 mg/kg, STA Inhalation vapours:  
0,501 mg/l

The full wording of hazard (H) phrases is given in section 16 of the sheet.

**SECTION 4. First aid measures****4.1. Description of first aid measures**

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

Specific information on symptoms and effects caused by the product are unknown.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment: see section 4.1

**SECTION 5. Firefighting measures****5.1. Extinguishing media****SUITABLE EXTINGUISHING EQUIPMENT**

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

**UNSUITABLE EXTINGUISHING EQUIPMENT**

None in particular.

**5.2. Special hazards arising from the substance or mixture****HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE**

Do not breathe combustion products.

**5.3. Advice for firefighters****GENERAL INFORMATION**

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS**

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

**SECTION 6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency

### SECTION 6. Accidental release measures ... / >>

procedures.

#### 6.2. Environmental precautions

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

#### 6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

#### 6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

### SECTION 7. Handling and storage

#### 7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

#### 7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

#### 7.3. Specific end use(s)

Information not available

### SECTION 8. Exposure controls/personal protection

#### 8.1. Control parameters

Regulatory references:

CZE	Česká Republika	Nařízení vlády č. 41/2020 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů
DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
GRC	Ελλάδα	Π.Δ. 26/2020 (ΦΕΚ 50/Α' 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ "σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιογόνους παράγοντες κατά την εργασία"»
HUN	Magyarország	Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NLD	Nederland	Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
SVN	Slovenija	Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19)
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)

### SECTION 8. Exposure controls/personal protection ... / >>

EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2022

#### Amines, polyethylenepoly-, tetraethylenepentamine fraction

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	0,01	mg/l
Normal value in marine water	0,001	mg/l
Normal value for fresh water sediment	3,198	mg/kg/d
Normal value for marine water sediment	0,3198	mg/kg/d
Normal value for marine water, intermittent release	0,068	mg/l
Normal value for fresh water, intermittent release	0,0068	mg/l
Normal value of STP microorganisms	4,6	mg/l
Normal value for the terrestrial compartment	2,5	mg/kg/d

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		0,21 mg/kg bw/d				
Inhalation	HIGH		HIGH	0,14 mg/m3	HIGH		HIGH	0,82 mg/m3
Skin	HIGH	HIGH	0,0208 mg/cm2	NPI	HIGH	HIGH	0,25 mg/cm2	NPI

#### Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	0,015	mg/l
Normal value in marine water	0,0142	mg/l
Normal value for fresh water sediment	0,132	mg/kg
Normal value for marine water sediment	0,125	mg/kg
Normal value for water, intermittent release	0,15	mg/l
Normal value of STP microorganisms	7,5	mg/l
Normal value for the food chain (secondary poisoning)	6,93	mg/kg
Normal value for the terrestrial compartment	0,0176	mg/kg

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation								5,29 mg/m3
Skin							0,623	2,5 mg/kg bw/d

### SECTION 8. Exposure controls/personal protection ... / >>

#### 1-METHOXY-2-PROPANOL

##### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	270	72,09	550	146,85	SKIN
AGW	DEU	370	100	740	200	
MAK	DEU	370	100	740	200	
VLA	ESP	375	100	568	150	SKIN
VLEP	FRA	188	50	375	100	SKIN
TLV	GRC	360	100	1080	300	
AK	HUN	375		568		SKIN
GVI/KGVI	HRV	375	100	568	150	
VLEP	ITA	375	100	568	150	SKIN Allegato XXXVIII D.Lgs. 81/08
TGG	NLD	375		563		SKIN
VLE	PRT	375	100	568	150	
NDS/NDSch	POL	180		360		SKIN
TLV	ROU	375	100	568	150	SKIN
MV	SVN	375	100	568	150	SKIN
WEL	GBR	375	100	560	150	SKIN
OEL	EU	375	100	568	150	SKIN
TLV-ACGIH		184	50	368	100	

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	10	mg/l
Normal value in marine water	1	mg/l
Normal value for fresh water sediment	52,3	mg/kg
Normal value for marine water sediment	5,2	mg/kg
Normal value for water, intermittent release	100	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	4,59	mg/kg

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				33 mg/kg bw/d				
Inhalation				43,9 mg/m3	553,5 mg/m3			369 mg/m3
Skin				78 mg/kg bw/d				183 mg/kg bw/d

### SECTION 8. Exposure controls/personal protection ... / >>

#### DIETHYLENETRIAMINE

##### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	4	0,932	8	1,864	
VLA	ESP	4,3	1			SKIN
VLEP	FRA	4	1			
TLV	GRC	4	1			
AK	HUN	4		8		SKIN
GVI/KGVI	HRV	4,3	1			
TGG	NLD	0,5				SKIN
NDS/NDSch	POL	4		12		SKIN
TLV	ROU	2	0,5	4	1	SKIN
WEL	GBR	4,3	1			SKIN
TLV-ACGIH		4,2	1			SKIN

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	0,56	mg/l
Normal value in marine water	0,056	mg/l
Normal value for fresh water sediment	1072	mg/kg
Normal value for marine water sediment	107,2	mg/kg
Normal value for marine water, intermittent release	0,32	mg/l
Normal value of STP microorganisms	6	mg/l
Normal value for the terrestrial compartment	7,97	mg/kg/d

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation		27,5 mg/m3		4,6 mg/m3	2,6 mg/m3	92,1 mg/m3	0,87 mg/m3	15,4 mg/m3
Skin		4,88 mg/kg bw/d		4,88 mg/kg bw/d	MED	NPI	1,1 mg/cm2	11,4 mg/kg bw/d

##### Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.  
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

### 8.2. Exposure controls

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

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

#### HAND PROTECTION

Protect your hands with category III work gloves.

For the final choice of the material of work gloves (ref. standard EN 374) the following must be considered: compatibility, degradation, breakage and permeation time.

In the case of preparations, the resistance of work gloves to chemical agents must be checked before use as it is unpredictable. The gloves have a wear time that depends on the duration and method of use.

Suitable materials for protective gloves; EN ISO 374:

Polyvinyl alcohol - PVA: thickness -; breakthrough time >= 480min.

#### SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

#### EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

#### RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

#### ENVIRONMENTAL EXPOSURE CONTROLS



### SECTION 8. Exposure controls/personal protection ... / >>

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.  
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

### SECTION 9. Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	AMBER LIKE	
Odour	characteristic	
Odour threshold	not determined	Reason for missing data: not determined
Melting point / freezing point	not determined	Reason for missing data: not determined
Initial boiling point	not determined	Reason for missing data: not determined
Flammability	not flammable	
Lower explosive limit	not determined	Reason for missing data: not determined
Upper explosive limit	not determined	Reason for missing data: not determined
Flash point	> 100 °C	
Auto-ignition temperature	not determined	Reason for missing data: not determined
Decomposition temperature	not determined	Reason for missing data: not determined
pH	10,3	Method: ISO 4316
Kinematic viscosity	not determined	Reason for missing data: not determined
Solubility	partially soluble in water	
Partition coefficient: n-octanol/water	not applicable	
Vapour pressure	not available	Reason for missing data: not determined
Density and/or relative density	1,07 kg/l	Method: EN ISO 1675
Relative vapour density	not determined	Reason for missing data: not determined
Particle characteristics	not applicable	

#### 9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2004/42/EC) : 1,64 % - 17,56 g/litre

### SECTION 10. Stability and reactivity

#### 10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

1-METHOXY-2-PROPANOL

Dissolves various plastic materials. Stable in normal conditions of use and storage.

Absorbs and dissolves in water and in organic solvents. With air it may slowly form explosive peroxides.

#### 10.2. Chemical stability

The product is stable in normal conditions of use and storage.

#### 10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

1-METHOXY-2-PROPANOL

May react dangerously with: strong oxidising agents, strong acids.

#### 10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

1-METHOXY-2-PROPANOL



**SECTION 10. Stability and reactivity** ... / >>

Avoid exposure to: air.

**10.5. Incompatible materials**

Amines, polyethylenepoly-, tetraethylenepentamine fraction

Incompatible with: acids, chlorinated hydrocarbons, oxidising agents, copper, cobalt, nickel, copper alloys.

1-METHOXY-2-PROPANOL

Incompatible with: oxidising substances, strong acids, alkaline metals.

**10.6. Hazardous decomposition products**

Amines, polyethylenepoly-, tetraethylenepentamine fraction

May develop: nitrous gases.

**SECTION 11. Toxicological information**

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

1-METHOXY-2-PROPANOL

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; inhalation of ambient air; contact with the skin of products containing the substance.

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

1-METHOXY-2-PROPANOL

The main route of entry is the skin, whereas the respiratory route is less important due to the low vapour pressure of the product.

Above 100 ppm causes irritation of the eye, nose and oropharynx mucous membranes. At 1000 ppm, disturbance of equilibrium and severe eye irritation can be noticed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies.

Acetate produces greater skin and eye irritation with direct contact. No chronic effects on humans have been reported.

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation - vapours) of the mixture:	> 20 mg/l
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	>2000 mg/kg

Amines, polyethylenepoly-, tetraethylenepentamine fraction

LD50 (Dermal): 1260 mg/kg Rabbit

LD50 (Oral): 3221 mg/kg Rat

STA (Oral): 500 mg/kg estimate from table 3.1.2 of Annex I of the CLP  
(figure used for calculation of the acute toxicity estimate of the mixture)

Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia

LD50 (Dermal): 2979,7 mg/kg Rabbit

LD50 (Oral): 2885,3 mg/kg Rat

1-METHOXY-2-PROPANOL

LD50 (Dermal): > 2000 mg/kg Rat

LD50 (Oral): > 3739 mg/kg Rat

LC50 (Inhalation vapours): 30,02 mg/l/4h Rat

DIETHYLENETRIAMINE

LD50 (Dermal): 1045 mg/kg Rabbit

LD50 (Oral): 1553 mg/kg Rat

LC50 (Inhalation vapours): 0,07 mg/l/4h Rat

**SECTION 11. Toxicological information** ... / >>

STA (Inhalation vapours):

0,501 mg/l estimate from table 3.1.2 of Annex I of the CLP  
(figure used for calculation of the acute toxicity estimate of the mixture)SKIN CORROSION / IRRITATION

Corrosive for the skin

Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia  
Species: rabbit  
Classification: corrosive  
Method: OECD 404SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia  
Species: rabbit  
Classification: Causes serious eye damage  
Method: OECD 405RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

Respiratory sensitizationReaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia  
Gases or vapors in high concentrations can irritate the respiratory tract. The exposition prolonged or repeated use may cause the following adverse effects: Sore throat. The vapours/spray of aerosols can irritate the respiratory tract.GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

**11.2. Information on other hazards**

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

**SECTION 12. Ecological information**

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on aquatic environment.

**12.1. Toxicity**

### SECTION 12. Ecological information ... / >>

#### DIETHYLENETRIAMINE

LC50 - for Fish	430 mg/l/96h <i>Poecilia reticulata</i>
EC50 - for Crustacea	32 mg/l/48h <i>Daphnia magna</i>
EC50 - for Algae / Aquatic Plants	1164 mg/l/72h <i>Pseudokirchneriella subcapitata</i>
Chronic NOEC for Fish	> 10 mg/l 28 d
Chronic NOEC for Crustacea	5,6 mg/l 21 d

#### Amines, polyethylenepoly-, tetraethylenepentamine fraction

LC50 - for Fish	420 mg/l/96h Fish
EC50 - for Crustacea	24,1 mg/l/48h <i>Daphnia</i>
EC50 - for Algae / Aquatic Plants	6,8 mg/l/72h
EC10 for Algae / Aquatic Plants	0,5 mg/l/72h

#### Formaldehyde, polymer with N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]-1,2-ethanediamine, 2, 2'-[1,4-butanediylbis(oxymethyle)]

EC50 - for Crustacea	10 mg/l/48h <i>Daphnia magna</i>
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#### Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia

LC50 - for Fish	> 15 mg/l/96h <i>Oncorhynchus mykiss</i>
EC50 - for Crustacea	80 mg/l/48h <i>Daphnia magna</i>
EC50 - for Algae / Aquatic Plants	15 mg/l/72h <i>Selenastrum capricornutum</i>
EC10 for Algae / Aquatic Plants	1,4 mg/l/72h <i>Selenastrum capricornutum</i>

### 12.2. Persistence and degradability

#### 1-METHOXY-2-PROPANOL

Solubility in water	1000 - 10000 mg/l
Rapidly degradable	

#### DIETHYLENETRIAMINE

Solubility in water	1000 - 10000 mg/l
NOT rapidly degradable	87% (21d, OECD 301D)

#### Amines, polyethylenepoly-, tetraethylenepentamine fraction

NOT rapidly degradable

#### Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia

NOT rapidly degradable

### 12.3. Bioaccumulative potential

#### 1-METHOXY-2-PROPANOL

Partition coefficient: n-octanol/water	< 1
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#### Amines, polyethylenepoly-, tetraethylenepentamine fraction

Partition coefficient: n-octanol/water	-2,6
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#### Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia

Partition coefficient: n-octanol/water	1,34 Log Kow
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### 12.4. Mobility in soil

Information not available

### 12.5. Results of PBT and vPvB assessment

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

### 12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

### 12.7. Other adverse effects

Information not available

**SECTION 13. Disposal considerations****13.1. Waste treatment methods**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

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

**SECTION 14. Transport information****14.1. UN number or ID number**

ADR / RID, IMDG, IATA: 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity  $\leq$  5Kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity  $\leq$  5Kg or 5L, is not submitted to IMDG Code provisions.

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity  $\leq$  5Kg or 5L, is not submitted to IATA dangerous goods regulations.

**14.2. UN proper shipping name**

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tetraethylenepentamine; POLY(PROPYLENE GLYCOL) BIS(2-AMINOPROPYL ETHER))

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tetraethylenepentamine; POLY(PROPYLENE GLYCOL) BIS(2-AMINOPROPYL ETHER); Formaldehyde, polymer with N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]-1,2-ethanediamine, 2, 2'-[1,4-butanediylbis(oxymethyle)])

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tetraethylenepentamine; POLY(PROPYLENE GLYCOL) BIS(2-AMINOPROPYL ETHER))

**14.3. Transport hazard class(es)**

ADR / RID: Class: 9 Label: 9

IMDG: Class: 9 Label: 9

IATA: Class: 9 Label: 9

**14.4. Packing group**

ADR / RID, IMDG, IATA: III

### SECTION 14. Transport information ... / >>

#### 14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: Environmentally Hazardous



#### 14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 90	Limited Quantities: 5 L	Tunnel restriction code: (-)
	Special provision: 274, 335, 375, 601		
IMDG:	EMS: F-A, S-F	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 450 L	Packaging instructions: 964
	Passengers:	Maximum quantity: 450 L	Packaging instructions: 964
	Special provision:	A97, A158, A197, A215	

#### 14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

### SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product	
Point	3 - 40
Contained substance	
Point	75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors  
not applicable

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

Substances subject to authorisation (Annex XIV REACH)  
None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:  
None

Substances subject to the Rotterdam Convention:  
None

Substances subject to the Stockholm Convention:  
None

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

VOC (Directive 2004/42/EC) :  
Two-pack reactive performance coatings for specific end use such as floors.

#### 15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

**SECTION 16. Other information**

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

<b>Flam. Liq. 3</b>	Flammable liquid, category 3
<b>Acute Tox. 2</b>	Acute toxicity, category 2
<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>Skin Corr. 1B</b>	Skin corrosion, category 1B
<b>Skin Corr. 1C</b>	Skin corrosion, category 1C
<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>Skin Sens. 1</b>	Skin sensitization, category 1
<b>Aquatic Chronic 2</b>	Hazardous to the aquatic environment, chronic toxicity, category 2
<b>Aquatic Chronic 3</b>	Hazardous to the aquatic environment, chronic toxicity, category 3
<b>H226</b>	Flammable liquid and vapour.
<b>H330</b>	Fatal if inhaled.
<b>H302</b>	Harmful if swallowed.
<b>H312</b>	Harmful in contact with skin.
<b>H314</b>	Causes severe skin burns and eye damage.
<b>H318</b>	Causes serious eye damage.
<b>H335</b>	May cause respiratory irritation.
<b>H317</b>	May cause an allergic skin reaction.
<b>H336</b>	May cause drowsiness or dizziness.
<b>H411</b>	Toxic to aquatic life with long lasting effects.
<b>H412</b>	Harmful to aquatic life with long lasting effects.

**LEGEND:**

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

**GENERAL BIBLIOGRAPHY**

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament

**SECTION 16. Other information** ... / >>

9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

**Note for users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

**CALCULATION METHODS FOR CLASSIFICATION**

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

**Changes to previous review:**

The following sections were modified:

02 / 03 / 04 / 08 / 09 / 10 / 11 / 12.