

# Safety Data Sheet

Complies with Annex II of REACH - Regulation (EU) 2020/878

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

### 1.1. Product identifier

Code: 0030142  
Name: METAL-STRIP  
Chemical name and synonyms: METAL-STRIP

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

Sector of use: SU22 – Professional uses  
Product category: PC35 – Washing and cleaning products (including solvent-based products)  
Description/Usage: Alkaline / solvent wax remover

### 1.3. Information about the supplier of the safety data sheet

Business name: MARBEC SRL  
Address: VIA CROCE ROSSA 5/i  
Locality and State: 51037 MONTALE (PISTOIA)  
ITALY  
tel. +039 0573/959848  
fax:

e-mail of the competent person,  
responsible for the safety data sheet: info@marbec.it

### 1.4. Emergency telephone number

For urgent information please contact

MARBEC srl  
+390573959848 8.30am-1pm 2pm-6pm or +393348578502  
Telephone number of Poison Control Centers active 24 hours a day  
IRCSS Maugeri Foundation –  
Pavia 0039-0382-24444  
CAV Ospedali Riuniti –  
Bergamo 0039-800-883300  
CAV Niguarda Ca` Granda Hospital –  
Milan 0039-02-66101029  
CAV Careggi Hospital - Florence 0039-055-7947819  
CAV Gemelli Polyclinic –  
Rome 0039-06-3054343  
CAV Policlinico Umberto I –  
Rome 0039-06 49978000  
CAV Cardarelli Hospital –  
Naples 0039-081 5453333  
CAV Verona Integrated Hospital Company - Verona 800011858

## SECTION 2. Hazard Identification

## 2.1. Substance or mixture classification

The product is classified as dangerous pursuant to the provisions of Regulation (EC) 1272/2008 (CLP) (and subsequent amendments and adjustments). The product therefore requires a safety data sheet compliant with the provisions of Regulation (EU) 2020/878. Any additional information regarding risks to health and/or the environment is reported in the sections. 11 and 12 of this sheet.

Hazard classification and indications:

Skin corrosion, category 1B	H314	It causes serious skin burns and serious eye injuries.
Serious eye damage, category 1	H318	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	H335	May irritate the respiratory tract.

## 2.2. Label elements

Hazard labeling pursuant to Regulation (EC) 1272/2008 (CLP) and subsequent amendments and adjustments.

Hazard pictograms:



Warnings:

Danger

Hazard Statements:

<b>H314</b>	It causes serious skin burns and serious eye injuries.
<b>H335</b>	May irritate the respiratory tract.

Precautionary advice:

<b>P260</b>	Do not breathe dust / fumes / gases / mist / vapors / aerosols.
<b>P305+P351+P338</b>	IN CASE OF CONTACT WITH EYES: rinse thoroughly for several minutes. Remove any contact lenses if it is easy to do so. Continue rinsing.
<b>P303+P361+P353</b>	IN CASE OF CONTACT WITH SKIN (or hair): immediately take off all contaminated clothing. Rinse your skin [or take a shower].
<b>P280</b>	Wear protective gloves/clothing and protect your eyes/face.
<b>P301+P330+P331</b>	IF SWALLOWED: rinse mouth. DO NOT induce vomiting.

**Contains:** Sodium metasilicate pentahydrate, Ethanolamine, Non-ionic surfactants <5%, anionic surfactants <5%

Product not intended for the uses foreseen by Directive 2004/42/EC.

## 2.3. Other dangers

Based on available data, the product does not contain PBT or vPvB substances in percentages  $\geq 0.1\%$ .

The product does not contain substances with properties that interfere with the endocrine system in concentrations  $\geq 0.1\%$ .

**SECTION 3. Composition/information on ingredients****3.2. Mixtures**

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
<b>ETHANOLAMINE</b> CAS 141-43-5 CE 205-483-3 INDEX 603-030-00-8 REACH Reg. 01-2119486455-28	$9 \leq x < 15$	Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335 STOT SE 3 H335: $\geq 5\%$ LD50 Oral: 1515 mg/kg, ATE Dermal: 1100 mg/kg, ATE Vapor inhalation: 11 mg/l
<b>BENZYL ALCOOL</b> CAS 100-51-6 CE 202-859-9 INDEX 603-057-00-5 REACH Reg. 01-2119492630-38	$3 \leq x < 9$	Acute Tox. 4 H302, Acute Tox. 4 H332, Eye Irrit. 2 H319 LD50 Oral: 1620 mg/kg, ATE Vapor inhalation: 11 mg/l
<b>SODIUM METASILICATE PENTAHYDRATE</b> CAS 10213-79-3 CE 229-912-9 INDEX - REACH Reg. 012119449811-37	$5 \leq x < 9$	Met. Corr. 1 H290, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335
<b>sodium cumene sulfonate</b> CAS 28348-53-0 CE 248-983-7 INDEX - REACH Reg. 01-2119489411-37-0001	$3 \leq x < 9$	Eye Irrit. 2 H319
<b>2-BUTHOXYETHANOL</b> CAS 111-76-2 CE 203-905-0 INDEX 603-014-00-0 REACH Reg. 01-2119475108-36-0005	$3 \leq x < 9$	Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315 LD50 Oral: >1200 mg/kg, ATE Dermal: 1100 mg/kg, ATE Vapor inhalation: 11 mg/l
<b>1-METHOXY-2-PROPANOL</b> CAS 107-98-2 CE 203-539-1 INDEX 603-064-00-3 REACH Reg. 01-2119457435-35	$1 \leq x < 3$	Flam. Liq. 3 H226, STOT SE 3 H336
<b>Alcohols, branched C12-15 and</b>		

**linear, ethoxylated propoxylated**

CAS 120313-48-6

1 ≤ x &lt; 3

Eye Irrit. 2 H319, Skin Irrit. 2 H315

THERE IS

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REACH Reg. (REF.:N° 02-  
2119548508-30-0000

The complete text of the hazard indications (H) is shown in section 16 of the sheet.

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

EYES: Remove any contact lenses. Wash immediately and abundantly with water for at least 30/60 minutes, opening the eyelids wide. Consult a doctor immediately.

SKIN: Take off contaminated clothing. Shower immediately. Consult a doctor immediately.

INGESTION: Drink as much water as possible. Consult a doctor immediately. Do not induce vomiting unless specifically authorized by your doctor.

INHALATION: Call a doctor immediately. Move the person to fresh air, away from the scene of the accident. If breathing stops, give artificial respiration. Adopt adequate precautions for the rescuer.

**4.2. Main symptoms and effects, both acute and delayed**

There is no specific information on the symptoms and effects caused by the product.

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

Information not available

**SECTION 5. Fire fighting measures****5.1. Fire fighting****SUITABLE EXTINGUISHING MEANS**

The extinguishing media are traditional ones: carbon dioxide, foam, powder and water spray.

**UNSUITABLE EXTINGUISHING MEANS**

No one in particular.

**5.2. Special hazards arising from the substance or mixture****DANGERS DUE TO EXPOSURE IN THE EVENT OF FIRE**

Avoid breathing combustion products.

**5.3. Recommendations for fire fighters****GENERAL INFORMATIONS**

Cool the containers with jets of water to avoid decomposition of the product and the development of substances potentially dangerous to health. Always wear full fire protection equipment. Collect extinguishing water that must not be discharged into sewers. Dispose of the contaminated water used for extinguishing and the residue of the fire according to current regulations.

**EQUIPMENT**

Normal fire-fighting clothing, such as an open circuit compressed air breathing apparatus (EN 137), flame retardant suit (EN469), flame retardant gloves (EN 659) and fire fighter boots (HO A29 or A30).

## SECTION 6. Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Stop the leak if there is no danger.

Wear appropriate protective equipment (including personal protective equipment referred to in section 8 of the safety data sheet) to prevent contamination of skin, eyes and personal clothing. These indications are valid both for workers and for emergency interventions.

### 6.2. Environmental precautions

Prevent the product from entering sewers, surface waters and groundwater.

### 6.3. Methods and materials for containment and cleanup

Suck up the spilled product into a suitable container. Evaluate the compatibility of the container to be used with the product, checking section 10. Absorb the remainder with inert absorbent material.

Provide sufficient ventilation of the area affected by the leak. Disposal of contaminated material must be carried out in accordance with the provisions of point 13.

### 6.4. Reference to other sections

Any information regarding personal protection and disposal is reported in sections 8 and 13.

## SECTION 7. Handling and storage

### 7.1. Precautions for Safe Handling

Keep away from heat, sparks and open flames, do not smoke or use matches or lighters. Without adequate ventilation, vapors can accumulate on the ground and ignite even remotely, if triggered, with the risk of backfire. Avoid the accumulation of electrostatic charges. Do not eat, drink or smoke during use. Remove contaminated clothing and protective equipment before entering eating areas. Avoid dispersing the product into the environment.

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

Store only in the original container. Store in a cool, well-ventilated place, away from heat sources, open flames, sparks and other sources of ignition. Store containers away from any incompatible materials, checking section 10.

Storage class TRGS 510 (Germany):

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### 7.3. Specific end uses

Information not available

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

Normative requirements:

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

# MARBEC SRL

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Replaces revision:6 (Revision date: 11/02/2022)

EXP	Spain	Professional exposure limits for chemical agents in Spain 2021 Value limits of professional exposure to chemical agents in France. ED 984 - INRS Legislative Decree 9 April 2008, n.81 Decree-Lei n.º 1/2021 of 6 January, indicative professional exposure limit values for chemical agents. Legislative Decree no. 35/2020 of 13 July, protection of workers against risks linked to exposure during work with cancerous or mutagenic agents
BETWEEN	France	
ITA	Italy	
PRT	Portugal	
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020) 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.
EU	OEL EU	
	TLV-ACGIH	ACGIH 2021

### ETHANOLAMINE

#### Threshold limit value

Guy	State	TWA/8h		STEL/15min		Notes / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	0.5	0.2	0.5	0.2	SKIN
MAK	DEU	0.51	0.2	0.51	0.2	
VLA	EXP	2.5	1	7.5	3	SKIN
VLEP	BETWEEN	2.5	1	7.6	3	SKIN
VLEP	ITA	2.5	1	7.6	3	SKIN
VLE	PRT	2.5	1	7.6	3	SKIN
WEL	GBR	2.5	1	7.6	3	SKIN
OEL	EU	2.5	1	7.6	3	SKIN
TLV-ACGIH		7.5	3	15	6	

#### Predicted no-effect concentration on the environment - PNEC

Reference value in fresh water	0.085	mg/l
Reference value in sea water	0.0085	mg/l
Reference value for sediments in fresh water	0.425	mg/kg
Reference value for sediments in sea water	0.0425	mg/kg
Reference value for water, intermittent release	0.025	mg/l
Reference value for STP microorganisms	100	mg/l
Reference value for the terrestrial compartment	0.035	mg/kg

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

Exhibition Street	Effects on consumers			Effects on workers				
	Acute rooms	Acute systemic	Chronic premises	Chronic systemic	Acute rooms	Acute systemic	Chronic premises	Chronic systemic
Oral				3.75 mg/kg/d				
Inhalation			2 mg/m3				3.3 mg/m3	
Dermal				0.24 mg/kg/d				1 mg/kg/d

### BENZYL ALCOOL

#### Predicted no-effect concentration on the environment - PNEC

Reference value in fresh water	1	mg/l
Reference value in sea water	0.1	mg/l
Reference value for sediments in fresh water	5.27	mg/kg/d
Reference value for sediments in sea water	0.527	mg/kg/d
Reference value for water, intermittent release	2,3	mg/l
Reference value for STP microorganisms	39	mg/l

Reference value for the terrestrial compartment 0.456 mg/kg/d

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

Exhibition Street	Effects on consumers				Effects on workers			
	Acute rooms	Acute systemic	Chronic premises	Chronic systemic	Acute rooms	Acute systemic	Chronic premises	Chronic systemic
Oral	VND	20 mg/kg bw/d	VND	4 mg/kg bw/d				
Inhalation	VND	27 mg/m3	VND	5.4 mg/m3	VND	110 mg/m3	VND	22 mg/m3
Dermal					VND	40 mg/kg bw/d	VND	8 mg/kg bw/d

**SODIUM METASILICATE PENTAHYDRATE**

Predicted no-effect concentration on the environment - PNEC

Reference value in fresh water	7.5	mg/l
Reference value in sea water	1	mg/l
Reference value for sediments in fresh water	VND	
Reference value for sediments in sea water	VND	
Reference value for water, intermittent release	7.5	mg/l
Reference value for STP microorganisms	1000	mg/l
Reference value for the terrestrial compartment	VND	

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

Exhibition Street	Effects on consumers				Effects on workers			
	Acute rooms	Acute systemic	Chronic premises	Chronic systemic	Acute rooms	Acute systemic	Chronic premises	Chronic systemic
Oral				0.74 mg/kg bw/d				
Inhalation				1.55 mg/m3				6.22 mg/m3
Dermal				0.74 mg/kg bw/d				1.49 mg/kg bw/d

**sodium cumene sulfonate**

Predicted no-effect concentration on the environment - PNEC

Reference value in fresh water	0.23	mg/l
Reference value for water, intermittent release	2,3	mg/l
Reference value for STP microorganisms	100	mg/l

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

Exhibition Street	Effects on consumers				Effects on workers			
	Acute rooms	Acute systemic	Chronic premises	Chronic systemic	Acute rooms	Acute systemic	Chronic premises	Chronic systemic
Oral				3.8 mg/kg bw/d				
Inhalation				13.2 mg/m3				53.6 mg/m3
Dermal				3.8 mg/kg bw/d				7.6 mg/kg bw/d

**2-BUTHOXYETHANOL****Threshold limit value**

Guy	State	TWA/8h		STEL/15min		Notes / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	49	10	98 (C)	20 (C)	SKIN
MAK	DEU	49	10	98	20	SKIN Hinweis
VLA	EXP	98	20	245	50	SKIN
VLEP	BETWEEN	49	10	246	50	SKIN
VLEP	ITA	98	20	246	50	SKIN

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VLE	PRT	98	20	246	50	SKIN
WEL	GBR	123	25	246	50	SKIN
OEL	EU	98	20	246	50	SKIN
TLV-ACGIH		97	20			

### Predicted no-effect concentration on the environment - PNEC

Reference value in fresh water	8.8	mg/l
Reference value in sea water	0.88	mg/l
Reference value for sediments in fresh water	34.6	mg/kg
Reference value for sediments in sea water	3.46	mg/kg
Reference value for water, intermittent release	9.1	mg/l
Reference value for STP microorganisms	463	mg/l
Reference value for the food chain (secondary poisoning)	20	mg/kg
Reference value for the terrestrial compartment	2.33	mg/kg

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

Exhibition Street	Effects on consumers			Effects on workers				
	Acute rooms	Acute systemic	Chronic premises	Chronic systemic	Acute rooms	Acute systemic	Chronic premises	Chronic systemic
Oral		26.7 mg/kg bw/d		6.3 mg/kg bw/d				
Inhalation	147 mg/m3	426 mg/m3		59 mg/m3	246 mg/m3	1091 mg/m3		98 mg/m3
Dermal				38 mg/kg bw/d				

### 1-METHOXY-2-PROPANOL

#### Threshold limit value

Guy	State	TWA/8h		STEL/15min		Notes / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	370	100	740	200	
MAK	DEU	370	100	740	200	
VLA	EXP	375	100	568	150	SKIN
VLEP	BETWEEN	188	50	375	100	SKIN
VLEP	ITA	375	100	568	150	SKIN
VLE	PRT	375	100	568	150	
WEL	GBR	375	100	560	150	SKIN
OEL	EU	375	100	568	150	SKIN
TLV-ACGIH		184	50	368	100	

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

Exhibition Street	Effects on consumers			Effects on workers				
	Acute rooms	Acute systemic	Chronic premises	Chronic systemic	Acute rooms	Acute systemic	Chronic premises	Chronic systemic
Oral			VND	3.3 mg/kg bw/d				
Inhalation			VND	43.9 mg/m3	553.5 mg/m3	VND		369 mg/m3
Dermal			VND	18.1 mg/kg bw/d		VND		50.6 mg/kg bw/d

Legend:



(C) = CEILING ; INALAB = Inhalable Fraction; RESPIR = Respirable Fraction; TORAC = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available; NEA = no expected exposure; NPI = no hazard identified.

## 8.2. Exposure controls

Considering that the use of adequate technical measures should always take priority over personal protective equipment, ensure good ventilation in the workplace through effective local extraction.

When choosing personal protective equipment, ask your chemical suppliers for advice if necessary.

Personal protective equipment must bear the CE marking which certifies their compliance with current regulations.

Provide emergency shower with eyecup.

### HAND PROTECTION

Protect your hands with category III work gloves (ref. Directive 89/686/EEC and standard EN 374) such as PVA, butyl, fluoroelastomer or equivalent.

-Material: butyl rubber, PVC , polychloroprene with natural latex coating, material thickness: 0.5 mm, penetration time: > 480 min.

- Material: rubber nitrile, rubber fluorinated, thickness of the material: 0.35-0.4 mm, time Of penetration: > 480 min.

Observations: for the final choice of work glove material, the following must be considered: compatibility, degradation, breaking time and permeation.

### SKIN PROTECTION

Wear work clothes with long sleeves and safety footwear for professional category II use (ref. Regulation 2016/425 and standard EN ISO 20344). Wash with soap and water after removing protective clothing.

### EYE PROTECTION

We recommend wearing airtight protective glasses (ref. standard EN 166).

### RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) of the substance or one or more of the substances present in the product is exceeded (e.g. use in unventilated environments, formation of dust or aerosol) use respiratory protection equipped with a combined filter of type ABEK-P1 whose class (1, 2 or 3) must be chosen in relation to the limit concentration of use. (ref. standard EN 14387). If gases or vapors of a different nature and/or gases or vapors with particles (aerosols, fumes, mists, etc.) are present, combined filters must be provided.

The use of respiratory protection means is necessary if the technical measures adopted are not sufficient to limit the worker's exposure to the threshold values taken into consideration. However, the protection offered by masks is limited.

In the event that the substance considered is odorless or its olfactory threshold is higher than the relevant TLV-TWA and in case of emergency, wear an open-circuit compressed air breathing apparatus (ref. standard EN 137) or a self-contained breathing apparatus external air (ref. EN 138 standard). For the correct choice of respiratory protection device, refer to the EN 529 standard.

### ENVIRONMENTAL EXPOSURE CONTROLS

Emissions from production processes, including those from ventilation equipment, should be controlled for compliance with environmental protection legislation.

## SECTION 9. Physical and chemical properties

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

Property	Value	Information
Physical State	liquid	
Color	straw yellow	
Odor	characteristic	
Melting or freezing point	Not available	
Initial boiling point	Not available	
Flammability	Not available	
Lower explosive limit	Not applicable	
Upper explosive limit	Not applicable	
Flash point	>60°C	

Auto-ignition temperature	Not available
pH	13-14
Kinematic viscosity	Not available
Solubility	soluble in water
Partition coefficient: n-octanol/water	Not available
Vapor pressure	Not available
Density and/or Relative density	1.062 kg/l
Relative vapor density	Not available
Characteristics of the particles	Not applicable

## 9.2. More information

### 9.2.1. Information regarding physical hazard classes

#### Flammable liquids

Maintenance of combustion does not maintain combustion

### 9.2.2. Other safety features

VOC (Directive 2010/75/EU) 15.35% - 163.02 g/litre

Explosive properties not explosive

Oxidizing properties non-oxidizing

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

There are no particular dangers of reaction with other substances under normal conditions of use.

#### SODIUM METASILICATE PENTAHYDRATE

Aqueous solutions behave like: strong bases. Corrodes: aluminium, zinc, tin, aluminum alloys, zinc alloys, tin alloys.

#### 2-BUTHOXYETHANOL

It decomposes due to heat.

#### 1-METHOXY-2-PROPANOL

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

It absorbs and dissolves in water and organic solvents. With air it can slowly give explosive peroxides.

### 10.2. Chemical stability

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

### 10.3. Possibility of dangerous reactions

Vapors can form explosive mixtures with air.

## ETHANOLAMINE

May react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulfuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulfuric acid, strong acids, vinyl acetate, cellulose nitrate.

## SODIUM METASILICATE PENTAHYDRATE

Reacts violently with: acids.

## 2-BUTHOXYETHANOL

May react dangerously with: aluminium, oxidising agents. Forms peroxides with: air.

## 1-METHOXY-2-PROPANOL

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

**10.4. Conditions to avoid**

Avoid overheating. Avoid the accumulation of electrostatic charges. Avoid any source of ignition.

## ETHANOLAMINE

Avoid exposure to: air, heat sources.

## 2-BUTHOXYETHANOL

Avoid exposure to: heat sources, open flames.

## 1-METHOXY-2-PROPANOL

Avoid exposure to: air.

**10.5. Incompatible materials**

## ETHANOLAMINE

Incompatible with: iron, strong acids, strong oxidants.

## 1-METHOXY-2-PROPANOL

Incompatible with: oxidizing substances, strong acids, alkali metals.

**10.6. Hazardous decomposition products**

Due to thermal decomposition or in the event of fire, gases and vapors potentially harmful to health can be released.

## ETHANOLAMINE

May develop: nitrogen oxides, carbon oxides.

## 2-BUTHOXYETHANOL

Can develop: hydrogen.

## SECTION 11. Toxicological information

### 11.1. Information on the hazard classes defined in Regulation (EC) no. 1272/2008

#### Metabolism, kinetics, 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.

#### Immediate, delayed and chronic effects resulting from short- and long-term exposures

##### 1-METHOXY-2-PROPANOL

The main route of entry is the skin, while the respiratory route is less important, given the low vapor pressure of the product. Above 100 ppm there is irritation of the ocular, nasal and oropharyngeal mucous membranes. At 1000 ppm, balance disturbances and severe eye irritation are noted. The clinical and biological tests carried out on the exposed volunteers revealed no anomalies. Acetate produces greater skin and eye irritation upon direct contact. No chronic effects on humans are 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

##### ETHANOLAMINE

LD50 (Dermal):	2504 mg/kg rat
STA (Cutaneous):	1100 mg/kg estimated from table 3.1.2 of Annex I of CLP (data used to calculate the estimate of the acute toxicity of the mixture)

LD50 (Oral):	1515 mg/kg rat
LC50 (Vapour inhalation):	1.48 mg/l/4h rat
STA (Vapour inhalation):	11 mg/l estimated from table 3.1.2 of Annex I of CLP (data used to calculate the estimate of the acute toxicity of the mixture)

##### BENZYL ALCOOL

LD50 (Oral): 1620 mg/kg male rat  
 LC50 (Vapour inhalation): > 4178 mg/l/4h  
 STA (Vapour inhalation): 11 mg/l estimated from table 3.1.2 of Annex I of CLP  
 (data used to calculate the estimate of the acute toxicity of the mixture)

**SODIUM METASILICATE PENTAHYDRATE**

LD50 (Dermal): > 5000 mg/kg rat  
 LD50 (Oral): > 1152 mg/kg rat  
 LC50 (Inhalation of mists/dusts): > 2.06 g/m3 rat

**sodium cumene sulfonate**

LD50 (Dermal): > 2000 mg/kg  
 LD50 (Oral): > 7000 mg/kg

**2-BUTHOXYETHANOL**

LD50 (Dermal): > 2000 mg/kg Guinea pig (OECD - guideline 402)  
 STA (Cutaneous): 1100 mg/kg estimated from table 3.1.2 of Annex I of CLP  
 (data used to calculate the estimate of the acute toxicity of the mixture)  
 LD50 (Oral): > 1200 mg/kg Guinea pig  
 LC50 (Vapour inhalation): 2.2 mg/l/4h Rat  
 STA (Vapour inhalation): 11 mg/l estimated from table 3.1.2 of Annex I of CLP  
 (data used to calculate the estimate of the acute toxicity of the mixture)

LD50 (Oral):  
 LC50 (Vapour inhalation):  
 STA (Vapour inhalation):

**Alcohols, branched C12-15 and linear, ethoxylated propoxylated**

LD50 (Oral): > 2000 mg/kg rat

**1-METHOXY-2-PROPANOL**

LD50 (Dermal): > 2000 mg/kg Rabbit  
 LD50 (Oral): 4016 mg/kg Rat  
 LC50 (Vapour inhalation): > 7000 mg/l/4h Rat

**SKIN CORROSION / SKIN IRRITATION**

Corrosive to the skin

**SERIOUS EYE DAMAGE / EYE IRRITATION**

Causes serious eye damage

**RESPIRATORY OR SKIN SENSITIZATION**

It does not meet the classification criteria for this hazard class

**Respiratory sensitization**

Information not available

Skin sensitization

Information not available

MUTAGENICITY ON GERM CELLS

It does not meet the classification criteria for this hazard class

CARCINOGENICITY

It does not meet the classification criteria for this hazard class

REPRODUCTION TOXICITY

It does not meet the classification criteria for this hazard class

Harmful effects on sexual function and fertility

Information not available

Harmful effects on the development of offspring

Information not available

Effects on or through breastfeeding

Information not available

SPECIFIC TARGET ORGAN TOXICITY (STOT) - SINGLE EXPOSURE

May irritate the respiratory tract

Target organs

Information not available

Route of exposure

Information not available

SPECIFIC TARGET ORGAN TOXICITY (STOT) - REPEATED EXPOSURE

It does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

DANGER IN CASE OF ASPIRATION

It does not meet the classification criteria for this hazard class

**11.2. Information about other hazards**

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

**SECTION 12. Ecological information****12.1. Toxicity****2-BUTHOXYETHANOL**

Aquatic toxicity assessment (supplier): the product is most likely not harmful to aquatic organisms. There is a high probability that the product is not chronically harmful to aquatic organisms. The correct introduction of low concentrations into a biological purification plant should not compromise the degradation activity of the activated sludge. Terrestrial Toxicity Assessment (Supplier): Study scientifically not justified.

**1-METHOXY-2-PROPANOL**

The product is most likely not harmful to aquatic organisms. The correct introduction of low concentrations into a biological purification plant should not

compromise the degradation activity of the active sludge.

#### SODIUM METASILICATE PENTAHYDRATE

LC50 - Pisces 210 mg/l/96h brachydanio rerio  
EC50 - Crustaceans 1700 mg/l/48h daphnia magna

#### 2-BUTHOXYETHANOL

LC50 - Pisces 1474 mg/l/96h oncorhynchus mykiss  
EC50 - Crustaceans 1550 mg/l/48h daphnia magna  
EC50 - Algae / Aquatic Plants 1840 mg/l/72h pseudokirchneriella subcapitata  
Chronic NOEC Fish > 100 mg/l brachydanio rerio  
Chronic NOEC Crustaceans 100 mg/l daphnia magna

#### ETHANOLAMINE

LC50 - Pisces 349 mg/l/96h cyprinus carpio  
EC50 - Crustaceans 65 mg/l/48h daphnia magna  
EC50 - Algae / Aquatic Plants 2.5 mg/l/72h pseudokirchneriella subcapitata

#### 1-METHOXY-2-PROPANOL

LC50 - Pisces > 6800 mg/l/96h leuciscus idus  
EC50 - Crustaceans 23300 mg/l/48h daphnia magna

#### BENZYL ALCOOL

LC50 - Pisces 460 mg/l/96h Pimephales  
EC50 - Crustaceans 230 mg/l/48h Daphnia magna  
Chronic NOEC Crustaceans 51 mg/l Daphnia magna  
Chronic NOEC Algae / Aquatic Plants 310 mg/l Algae - Pseudokirchneriella subcapitata

#### sodium cumene sulfonate

LC50 - Pisces > 1000 mg/l/96h  
EC50 - Crustaceans > 1000 mg/l/48h  
EC50 - Algae / Aquatic Plants 310 mg/l/72h

#### Alcohols, branched C12-15 and linear, ethoxylated propoxylated

LC50 - Pisces 5 mg/l/96h

### 12.2. Persistence and degradability

#### SODIUM METASILICATE PENTAHYDRATE

Inorganic. Soluble silicates rapidly depolymerize when diluted, producing molecular species that are indistinguishable from natural silica.

#### 1-METHOXY-2-PROPANOL

Evaluation of biodegradability and elimination (H<sub>2</sub>O): easily biodegradable (according to OECD criteria). Disposal considerations: 90-100% (28 days) (OECD 301E/92/96/EEC, C 4-B) (aerobic, effluent from a municipal water treatment plant). In water, hydrolytic stability was not determined but rapid biodegradability was found (96% degraded in 28 days). OECD 301E tests. Atmospheric vapor photodegraded rapidly (half-life <1 day)

#### 2-BUTHOXYETHANOL



Solubility in water 1000 - 10000 mg/l

Rapidly degradable

ETHANOLAMINE

Solubility in water 1000 - 10000 mg/l

Rapidly degradable

1-METHOXY-2-PROPANOL

Solubility in water 1000 - 10000 mg/l

Rapidly degradable

BENZYL ALCOOL

Rapidly degradable

sodium cumene sulfonate

Rapidly degradable

Alcohols, branched C12-15 and linear,  
ethoxylated propoxylated

Rapidly degradable

### 12.3. Bioaccumulative potential

SODIUM METASILICATE PENTAHYDRATE

Inorganic. The substance has no bioaccumulation potential.

2-BUTHOXYETHANOL

Partition coefficient: n-octanol/water 0.81

BCF 3.16 (calculated QSAR value). This substance is not expected to bioaccumulate

ETHANOLAMINE

Partition coefficient: n-octanol/water -2.3

1-METHOXY-2-PROPANOL

Partition coefficient: n-octanol/water < 1

BENZYL ALCOOL

Partition coefficient: n-octanol/water 1.05 Log Kow

BCF 1.37 calculated

sodium cumene sulfonate

Partition coefficient: n-octanol/water 1.1 Log Kow

### 12.4. Mobility in soil

2-BUTHOXYETHANOL

Transport evaluation between environmental departments (supplier): the substance does not evaporate into the atmosphere from the water surface. Absorption to the solid phase of the soil is not predictable. Scientifically unjustified study. Stability in water: immediate hydrolysis is not expected; contains no functional groups which are believed to be hydrolysable in water. Stability in soil: expected low adsorption into soil particles.

ETHANOLAMINE

Partition coefficient: soil/water

-0.5646

**12.5. Results of PBT and vPvB assessment**

Based on available data, the product does not contain PBT or vPvB substances in percentages  $\geq 0.1\%$ .

**12.6. Endocrine disrupting properties**

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

**12.7. Other adverse effects**

Information not available

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

Reuse if possible. Product residues are to be considered hazardous special waste. The dangerousness of waste that partly contains this product must be assessed based on current legislative provisions.

Disposal must be entrusted to a company authorized to manage waste, in compliance with national and possibly local regulations.

Transport of waste may be subject to ADR.

**CONTAMINATED PACKAGING**

Contaminated packaging must be sent for recovery or disposal in compliance with national waste management regulations.

**SECTION 14. Transportation Information****14.1. UN number or ID number**

ADR/RID, IMDG, 1760

IATA:

**14.2. Official UN shipping name**

ADR / RID: CORROSIVE LIQUID, NOS (ETHANOLAMINE; SODIUM METASILICATE PENTAHYDRATE)

IMDG: CORROSIVE LIQUID, NOS (ETHANOLAMINE; SODIUM METASILICATE)

IATA: CORROSIVE LIQUID, NOS (ETHANOLAMINE; SODIUM METASILICATE)

**14.3. Transport hazard classes**

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8



IATA: Class: 8 Label: 8



**14.4. Packing group**

ADR/RID, IMDG, IATA: III

**14.5. Dangers for the environment**

ADR / RID: NO  
 IMDG: NO  
 IATA: NO

**14.6. Special precautions for users**

ADR / RID:	HIN - Kemler: 80	Limited Quantities: 5 L	Tunnel restriction code: (E)
	Special provision: 274		
IMDG:	EMS: FA, SB	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Provision:	A3, A803	

**14.7. Maritime transport in bulk in accordance with IMO acts**

Information not relevant

**SECTION 15. Regulatory information**

**15.1. Health, safety and environmental laws and regulations specific for the substance or mixture**

Seveso Category - Directive 2012/18/EU: None

Restrictions relating to the product or substances contained according to Annex XVII Regulation (EC) 1907/2006

Product  
 Point 3 - 40

Substances contained  
 Point 75

Regulation (EU) 2019/1148 - relating to the placing on the market and use of explosives precursors

Not applicable

Substances in Candidate List (Art. 59 REACH)

Based on available data, the product does not contain SVHC substances in percentages  $\geq 0.1\%$ .

Substances subject to authorization (Annex XIV REACH)

None

Substances subject to export notification requirements Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Sanitary checks

Workers exposed to this chemical agent dangerous to health must be subjected to health surveillance carried out in accordance with the provisions of the art. 41 of Legislative Decree 81 of 9 April 2008 unless the risk to the safety and health of the worker has been assessed as irrelevant, in accordance with the provisions of art. 224 paragraph 2.

## 15.2. Chemical safety assessment

A chemical safety assessment has been developed for the following substances contained in the mixture:  
Ethanalamine, Benzyl alcohol, Sodium metasilicate pentahydrate, Sodium cumenesulphonate, 2-butoxyethanol.

## SECTION 16. Other information

Text of the hazard statements (H) mentioned in sections 2-3 of the sheet:

<b>Flam. Liq. 3</b>	Flammable liquid, category 3
<b>Met. Corr. 1</b>	Substance or mixture corrosive to metals, category 1
<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>Skin Corr. 1B</b>	Skin corrosion, category 1B
<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>Eye Irrit. 2</b>	Eye irritation, category 2
<b>STOT IF 3</b>	Specific target organ toxicity - single exposure, category 3
<b>H226</b>	Flammable liquid and vapour.
<b>H290</b>	May be corrosive to metals.
<b>H302</b>	Harmful if ingested.
<b>H312</b>	Harmful in contact with skin.
<b>H332</b>	Harmful if inhaled.
<b>H314</b>	It causes serious skin burns and serious eye injuries.
<b>H318</b>	Causes serious eye damage.

<b>H319</b>	Causes serious eye irritation.
<b>H335</b>	May irritate the respiratory tract.
<b>H336</b>	May cause drowsiness or dizziness.

## LEGEND:

- ADR: European Agreement for the transport of dangerous goods by road
- CAS: Chemical Abstract Service Number
- CE: Identification number in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived no-effect level
- EC50: Concentration that gives effect to 50% of the population subject to testing
- EmS: Emergency Schedule
- GHS: Globally Harmonized System for the Classification and Labeling of Chemical Products
- IATA DGR: Regulations for the transport of dangerous goods of the International Air Transport Association
- IC50: Immobilization concentration of 50% of the population subject to testing
- IMDG: International Maritime Code for the Transport of Dangerous Goods
- IMO: International Maritime Organization
- INDEX: Identification number in Annex VI of CLP
- LC50: Lethal concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational exposure level
- PBT: Persistent, bioaccumulating and toxic according to REACH
- PEC: Predictable environmental concentration
- PEL: Predictable level of exposure
- PNEC: Predictable no-effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulations for the international transport of dangerous goods by train
- STA: Acute Toxicity Estimate
- TLV: Threshold limit value
- TLV CEILING: Concentration that must not be exceeded during any moment of occupational exposure.
- TWA: Weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic compound
- vPvB: Very persistent and very bioaccumulating according to REACH
- WGK: Aquatic hazard class (Germany).

## GENERAL BIBLIOGRAPHY:

1. Regulation (EC) 1907/2006 of the European Parliament (REACH)
  2. Regulation (EC) 1272/2008 of the European Parliament (CLP)
  3. Regulation (EU) 2020/878 (Annex II of the REACH Regulation)
  4. Regulation (EC) 790/2009 of the European Parliament (I Atp. CLP)
  5. Regulation (EU) 286/2011 of the European Parliament (II Atp. CLP)
  6. Regulation (EU) 618/2012 of the European Parliament (III Atp. CLP)
  7. Regulation (EU) 487/2013 of the European Parliament (IV Atp. CLP)
  8. Regulation (EU) 944/2013 of the European Parliament (V Atp. CLP)
  9. Regulation (EU) 605/2014 of the European Parliament (VI Atp. CLP)
  10. Regulation (EU) 2015/1221 of the European Parliament (VII Atp. CLP)
  11. Regulation (EU) 2016/918 of the European Parliament (VIII Atp. CLP)
  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 (EU) 2018/1480 (XIII Atp. CLP)
  17. Regulation (EU) 2019/1148
  18. Delegated Regulation (EU) 2020/217 (XIV Atp. CLP)
  19. Delegated Regulation (EU) 2020/1182 (XV Atp. CLP)
  20. Delegated Regulation (EU) 2021/643 (XVI Atp. CLP)
  21. Delegated Regulation (EU) 2021/849 (XVII Atp. CLP)
- The Merck Index. - 10th Edition
  - Handling Chemical Safety
  - INRS - Fiche Toxicologique (toxicological sheet)
  - Patty - Industrial Hygiene and Toxicology
  - NI Sax - Dangerous properties of Industrial Materials-7, 1989 Edition

- IFA GESTIS website
- ECHA Agency website
- Database of SDS models of chemical substances - Ministry of Health and Istituto Superiore di Sanità

**Note for the user:**

The information contained in this sheet is based on the knowledge available to us at the date of the latest version. The user must ensure the suitability and completeness of the information in relation to the specific use of the product.

This document should not be interpreted as a guarantee of any specific property of the product.

Since the use of the product does not fall under our direct control, it is the user's obligation to observe the laws and regulations in force regarding hygiene and safety under his own responsibility. We do not assume responsibility for improper use.

Provide adequate training to personnel assigned to the use of chemical products.

**CLASSIFICATION CALCULATION METHODS**

Chemical-physical hazards: The classification of the product was derived from the criteria established by the CLP Regulation Annex I Part 2. The methods of evaluation of the chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on the calculation methods in Annex I of CLP Part 3, unless otherwise indicated in section 11.

Environmental hazards: The classification of the product is based on the calculation methods set out in Annex I of CLP Part 4, unless otherwise indicated in section 12.

**Changes compared to the previous revision**

Changes have been made to the following sections:

03/08/11.