

## Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

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

#### 1.1. Product identifier

Product name **MINERAL SILVER**

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

Intended use **Decorative metallized effect.**

Identified Uses	Industrial	Professional	Consumer
Paints, varnishes, coatings	-	✓	✓

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

Name	<b>CAP ARREGHINI SPA</b>		
Full address	<b>VIALE PORDENONE 80</b>		
District and Country	<b>30026 PORTOGRUARO</b>		<b>(VE)</b>
	<b>ITALIA</b>		
	Tel.	<b>(+39) 0421278111</b>	
	Fax	<b>(+39)042175498</b>	

e-mail address of the competent person responsible for the Safety Data Sheet **sicurezza@caparreghini.it**

#### 1.4. Emergency telephone number

For urgent inquiries refer to

**Italia: Azienda Ospedaliera Careggi Centro Antiveleni, tel. (+39)0557947819 h24**  
**България: Пирогов (+359) 029 153 233; (+359) 029 514 346 h24**  
**Slovenija: 112 - Center za javljanje in obvescanje na voljo 24 ur**  
**Hrvatska: 112 (za medicinske podatke+385-01-23-48-342)**

### SECTION 2. Hazards identification

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

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information, compliant to (EU) Regulation 2015/830.

Hazard classification and indication: --

#### 2.2. Label elements

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

Hazard pictograms: --

Signal words: --

Hazard statements:

**EUH210** Safety data sheet available on request.

**EUH208** Contains: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no.247-500-7] / 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3: 1)

May produce an allergic reaction.

Precautionary statements: --

VOC (Directive 2004/42/EC) :

Decorative effect coatings.

VOC given in g/litre of product in a ready-to-use condition : 200,00

Limit value: 200,00

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

#### 2.3. Other hazards

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

### SECTION 3. Composition/information on ingredients

#### 3.1. Substances

Information not relevant

#### 3.2. Mixtures

##### Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
<b>Aluminum powder (stabilized)</b>		
CAS	7429-90-5 5 ≤ x < 6	<b>Flam. Sol. 1 H228, Water-react. 1 H260, Classification note according to Annex VI to the CLP Regulation: T</b>
EC	231-072-3	
INDEX	013-002-00-1	
Reg. no.	01-2119529243-45	
<b>2-amino-2-methylpropanol</b>		
CAS	124-68-5 1,5 ≤ x < 1,6	<b>Eye Irrit. 2 H319, Skin Irrit. 2 H315, Aquatic Chronic 3 H412</b>
EC	204-709-8	
INDEX	603-070-00-6	
Reg. no.	01-2119475104-44	
<b>Distillati (petrolio), frazione paraffinica leggera raffinata con solvente.</b>		
CAS	64741-89-5 0 ≤ x < 0,05	<b>Asp. Tox. 1 H304, Classification note according to Annex VI to the CLP Regulation: L</b>
EC	265-091-3	
INDEX	649-455-00-2	
Reg. no.	01-2119475104-44	
<b>2-(2-butoxyethoxy)ethanol</b>		
CAS	112-34-5 0 ≤ x < 0,05	<b>Eye Irrit. 2 H319</b>
EC	203-961-6	
INDEX	603-096-00-8	
Reg. no.	01-2119475104-44	
<b>Ethylene glycol</b>		
CAS	107-21-1 0 ≤ x < 0,05	<b>Acute Tox. 4 H302</b>
EC	203-473-3	
INDEX	603-027-00-1	
Reg. no.	01-2119456816-28	
<b>5-chloro-2-methyl-4-isothiazolin-3-one [EC no.247-500-7] / 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3: 1)</b>		
CAS	55965-84-9 0 ≤ x < 0,0015	<b>Acute Tox. 2 H330, Acute Tox. 3 H301, Acute Tox. 3 H311, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=10</b>
EC	613-167-00-5	
INDEX	613-167-00-5	
Reg. no.	01-2119982985-14	
<b>Ammonia...%</b>		
CAS	1336-21-6 0 ≤ x < 0,05	<b>Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335, Aquatic Acute 1 H400 M=1, Aquatic Chronic 2 H411, Classification note according to Annex VI to the CLP Regulation: B</b>
EC	215-647-6	
INDEX	007-001-01-2	
Reg. no.	01-2119982985-14	

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.

### SECTION 4. First aid measures ... / >>

#### 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

Information not available

### SECTION 5. Firefighting measures

#### 5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

Chemical powder.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use water.

#### 5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

No information available.

#### 5.3. Advice for firefighters

GENERAL INFORMATION

Flammable gases develop in contact with water or moisture.

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 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. If the product is flammable, use explosion-proof equipment. 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

Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Avoid leakage of the product into the environment. Work in adequately ventilated areas. Avoid flames and sparks. 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. Keep the product in clearly labelled containers. Keep containers well sealed. Avoid contact with water or that may absorb moisture at all costs. Avoid violent blows. Avoid overheating. Store in a ventilated and dry place, far away from sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

### SECTION 7. Handling and storage ... / >>

Storage class TRGS 510 (Germany): 10

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

Information not available

### SECTION 8. Exposure controls/personal protection

#### 8.1. Control parameters

Regulatory References:

BGR	България	МИНИСТЕРСТВО НА ТРУДА И СОЦИАЛНАТА ПОЛИТИКА МИНИСТЕРСТВО НА ЗДРАВЕОПАЗВАНЕТО НАРЕДБА No 13 от 30 декември 2003 г
CZE	Česká Republika	Nářízení vlády č. 361/2007 Sb. kterým se stanoví podmínky ochrany zdraví při práci
DEU	Deutschland	TRGS 900 (Fassung 31.1.2018 ber.) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GBR	United Kingdom	EH40/2005 Workplace exposure limits
GRC	Ελλάδα	ΕΦΗΜΕΡΙΣ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ - ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 19 - 9 Φεβρουαρίου 2012
HRV	Hrvatska	NN13/09 - Ministarstvo gospodarstva, rada i poduzetništva
HUN	Magyarország	50/2011. (XII. 22.) NGM rendelet a munkahelyek kémiai biztonságáról
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
POL	Polska	ROZPORZĄDZENIE MINISTRA PRACY I POLITYKI SPOŁECZNEJ z dnia 7 czerwca 2017 r
ROU	România	Monitorul Oficial al României 44; 2012-01-19
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 20. júna 2007
SVN	Slovenija	Uradni list Republike Slovenije 04.06.2015 (1602) - Pravilnik o spremembah in dopolnitvah
EU	OEL EU	Pravilnika o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu
	TLV-ACGIH	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 91/322/EEC. ACGIH 2017

#### Propylene glycol

##### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
WEL	GBR	474	150		

#### Aluminum powder (stabilized)

##### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	1,5				RESP
TLV	CZE	10				
MAK	DEU	0,3				RESP
MAK	DEU	4				INHAL
MAK	DEU	1,5				
VLEP	FRA	5				
WEL	GBR	4				
TLV	GRC	10				
AK	HUN	6				
NDS	POL	2,5				INHAL
NDS	POL	1,2				RESP
TLV	ROU	1		3		
NPHV	SVK	1,5				RESP
NPHV	SVK	4				INHAL
TLV-ACGIH		1	0,9			

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

Route of exposure	Effects on consumers				Effects on workers			
	Acute		Chronic		Acute		Chronic	
	local	systemic	local	systemic	local	systemic	local	systemic
Inhalation	3	3			3	3		
	mg/m3	mg/m3			mg/m3	mg/m3		

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

### Polypropylene

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH		10			

### 2-amino-2-methylpropanol

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	DEU	3,7	1	7,4	2	SKIN

### Distillati (petrolio), frazione paraffinica leggera raffinata con solvente.

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	5			

### 2-(2-butoxyethoxy)ethanol

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
MAK	DEU	67	10	100,5	15
TLV	GRC	67,5	10	101,2	15
VLEP	ITA	67,5	10	101,2	15
NDS	POL	67		100	
TLV	ROU	150		250	
NPHV	SVK	67,5	10	101,2	
MV	SVN	67,5	10	101,25	15
OEL	EU	67,5	10	101,2	15
TLV-ACGIH		66	10		

### Ethylene glycol

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	52		104		SKIN
TLV	CZE	50		100		SKIN
MAK	DEU	26	10	52	20	SKIN
VLEP	FRA	52	20	104	40	SKIN
WEL	GBR	52	20	104	40	
TLV	GRC	125	50	125	50	
GVI	HRV	52	20	104	40	SKIN
AK	HUN	52		104		
VLEP	ITA	52	20	104	40	SKIN
NDS	POL	15		50		
TLV	ROU	52	20	104	40	SKIN
NPHV	SVK	52	20	104		SKIN
MV	SVN	52	20	104	40	SKIN
OEL	EU	52	20	104	40	SKIN
TLV-ACGIH			25		50	
TLV-ACGIH				10		INHAL

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

#### Ammonia...%

##### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	14	20	36	50

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

Normal value in fresh water	0,011	mg/l
Normal value in marine water	0,0011	mg/l
Normal value for water, intermittent release	0,0068	mg/l

##### 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		6,8 mg/kg bw/d		6,8 mg/kg bw/d				
Inhalation		23,8 mg/m3	2,8 mg/m3	23,8 mg/m3	36 mg/m3	47,6 mg/m3	14 mg/m3	47,6 mg/m3
Skin	68 mg/kg bw/d	68 mg/kg bw/d			VND	6,8 mg/kg bw/d	VND	6,8 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.

#### 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.

##### HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

##### SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC 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

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

### SECTION 9. Physical and chemical properties

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

Appearance	paste
Colour	as showed in color folder
Odour	characteristic
Odour threshold	Not available
pH	8,4
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
Flash point	> 60 °C

### SECTION 9. Physical and chemical properties ... / >>

Evaporation Rate	Not available
Flammability of solids and gases	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,06
Solubility	miscible with water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	>20,5 mm2/sec (40°C)
Explosive properties	Not available
Oxidising properties	Not available

#### 9.2. Other information

Total solids (250°C / 482°F)	34,84 %		
VOC (Directive 2004/42/EC) :	8,54 % - 90,51		g/litre
VOC (volatile carbon) :	4,06 % - 43,01		g/litre

### SECTION 10. Stability and reactivity

#### 10.1. Reactivity

Ethylene glycol  
 In the air absorbs moisture. Decomposes at temperatures above 200°C/392°F.

#### 10.2. Chemical stability

Information not available

#### 10.3. Possibility of hazardous reactions

The product may react violently with water.

2-amino-2-methylpropanol  
 May react dangerously with: strong oxidising agents, strong acids.

2-(2-butoxyethoxy)ethanol  
 May react with: oxidising substances. May form peroxides with: oxygen. Develops hydrogen on contact with: aluminium. May form explosive mixtures with: air.

Ethylene glycol  
 Risk of explosion on contact with: perchloric acid. May react dangerously with: chlorosulphuric acid, sodium hydroxide, sulphuric acid, phosphorus pentasulphide, chromium (III) oxide, chromyl chloride, potassium perchlorate, potassium dichromate, sodium peroxide, aluminium. Forms explosive mixtures with: air.

#### 10.4. Conditions to avoid

Avoid overheating. Prevent moisture or water from penetrating inside the containers.

2-(2-butoxyethoxy)ethanol  
 Avoid exposure to: air.

Ethylene glycol  
 Avoid exposure to: sources of heat, naked flames.

#### 10.5. Incompatible materials

2-amino-2-methylpropanol  
 Incompatible with: copper, copper alloys.

2-(2-butoxyethoxy)ethanol  
 Incompatible with: oxidising substances, strong acids, alkaline metals.

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

#### 10.6. Hazardous decomposition products

2-amino-2-methylpropanol  
 May develop: nitric oxide.

2-(2-butoxyethoxy)ethanol  
 May develop: hydrogen.

Ethylene glycol  
 May develop: hydroxyacetaldehyde, glyoxal, acetaldehyde, methane, carbon monoxide, hydrogen.

### 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 toxicological effects

##### Metabolism, toxicokinetics, mechanism of action and other information

Information not available

##### Information on likely routes of exposure

2-(2-butoxyethoxy)ethanol  
 WORKERS: inhalation; contact with the skin.

Ethylene glycol  
 WORKERS: inhalation; contact with the skin.  
 POPULATION: 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

2-(2-butoxyethoxy)ethanol  
 May be absorbed by inhalation, ingestion and skin contact; is irritating for the skin and especially for the eyes. May cause damage to the spleen. At room temperature the danger of inhalation is unlikely, due to the low vapour pressure of the substance.

Ethylene glycol  
 Ingestion initially stimulates the central nervous system; later replaced by a phase of depression. There may be kidney damage, with anuria and uremia. Over-exposure symptoms are: vomiting, drowsiness, difficulty in breathing, convulsions. The lethal dose for humans is approx. 1.4 ml/kg.

##### Interactive effects

Information not available

##### ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	Not classified (no significant component)
LD50 (Dermal) of the mixture:	Not classified (no significant component)

2-(2-butoxyethoxy)ethanol	
LD50 (Oral)	2400 mg/kg topo/mouse
LD50 (Dermal)	2700 mg/kg coniglio/rabbit

Ethylene glycol	
LD50 (Oral)	> 2000 mg/kg Rat
LD50 (Dermal)	9530 mg/kg Rabbit

2-amino-2-methylpropanol	
LD50 (Oral)	2900 mg/kg ratto/rat
LD50 (Dermal)	2000 mg/kg coniglio/rabbit



### SECTION 11. Toxicological information ... / >>

5-chloro-2-methyl-4-isothiazolin-3-one [EC no.247-500-7] / 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3: 1)	
LD50 (Oral)	62,3 mg/kg ratto/rat
LD50 (Dermal)	141 mg/kg coniglio/rabbit
LC50 (Inhalation)	0,33 mg/l/4h ratto/rat

Ammonia...%	
LD50 (Oral)	350 mg/kg ratto/rat

Distillati (petrolio), frazione paraffinica leggera raffinata con solvente.	
LD50 (Oral)	> 5000 mg/kg ratto/rat
LD50 (Dermal)	> 2000 mg/kg ratto/rat
LC50 (Inhalation)	5,53 mg/l/4h

#### SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

#### SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

#### RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.

Contains:

5-chloro-2-methyl-4-isothiazolin-3-one [EC no.247-500-7] / 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3: 1)

#### GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

#### CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Ethylene glycol

Available studies have shown no carcinogenic potential. In a carcinogenicity study lasting two years, carried out by the US National Toxicology Program (NTP), in which ethylene glycol was administered in the feed, "no evidence of carcinogenic activity" in male and female B6C3F1 mice was observed (NTP, 1993).

#### 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 Viscosity: >20,5 mm<sup>2</sup>/sec (40°C)

### SECTION 12. Ecological information

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

#### 12.1. Toxicity

2-(2-butoxyethoxy)ethanol	
LC50 - for Fish	1300 mg/l/96h <i>Lepomis macrochirus</i>
EC50 - for Crustacea	100 mg/l/48h <i>Daphnia magna</i>
EC50 - for Algae / Aquatic Plants	100 mg/l/72h <i>Desmodesmus subspicatus</i>

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

Ethylene glycol  
EC50 - for Crustacea > 100 mg/l/48h pulce d'acqua/waterflea

2-amino-2-methylpropanol  
LC50 - for Fish 190 mg/l/96h *Lepomis macrochirus*  
EC50 - for Crustacea 193 mg/l/48h *Daphnia magna*

5-chloro-2-methyl-4-isothiazolin-3-one [EC no.247-500-7] / 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3: 1)  
LC50 - for Fish 0,19 mg/l/96h *Oncorhynchus mykiss*  
EC50 - for Crustacea 0,16 mg/l/48h *Daphnia magna*  
EC50 - for Algae / Aquatic Plants 0,018 mg/l/72h *Pseudokirchneriella subcapitata*

Ammonia...%  
LC50 - for Fish 0,65 mg/l/96h  
EC50 - for Crustacea 1,71 mg/l/48h

#### 12.2. Persistence and degradability

Aluminum powder (stabilized)  
Solubility in water 0 mg/l  
Degradability: information not available

2-(2-butoxyethoxy)ethanol  
Solubility in water 1000 - 10000 mg/l  
Rapidly degradable

Ethylene glycol  
Solubility in water 1000 - 10000 mg/l  
Rapidly degradable

2-amino-2-methylpropanol  
Solubility in water 1000 - 10000 mg/l  
Rapidly degradable

5-chloro-2-methyl-4-isothiazolin-3-one [EC no.247-500-7] / 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3: 1)  
NOT rapidly degradable

Ammonia...%  
Solubility in water > 100000 mg/l

#### 12.3. Bioaccumulative potential

2-(2-butoxyethoxy)ethanol  
Partition coefficient: n-octanol/water 1

Ethylene glycol  
Partition coefficient: n-octanol/water -1,36

2-amino-2-methylpropanol  
Partition coefficient: n-octanol/water -0,63  
BCF 320

Ammonia...%  
Partition coefficient: n-octanol/water -0,64

#### 12.4. Mobility in soil

Ammonia...%  
Partition coefficient: soil/water 13,8

#### 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 greater than 0,1%.

#### 12.6. Other adverse effects

Information not available

### SECTION 13. Disposal considerations

#### 13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.  
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.  
**CONTAMINATED PACKAGING**  
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

### SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

#### 14.1. UN number

Not applicable

#### 14.2. UN proper shipping name

Not applicable

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

Not applicable

#### 14.4. Packing group

Not applicable

#### 14.5. Environmental hazards

Not applicable

#### 14.6. Special precautions for user

Not applicable

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

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/EC: \_\_\_\_\_ None

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

Contained substance	Point	Reg. no.:
2-(2-butoxyethoxy)ethanol	55	01-2119475104-44

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

### SECTION 15. Regulatory information ... / >>

Substances subject to the Stockholm Convention:  
None

Healthcare controls  
Information not available

VOC (Directive 2004/42/EC) :  
Decorative effect coatings.

German regulation on the classification of substances hazardous to water (VwVwS 2005)  
WGK 1: Low hazard to waters

#### 15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

### SECTION 16. Other information

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

<b>Flam. Sol. 1</b>	Flammable solid, category 1
<b>Acute Tox. 2</b>	Acute toxicity, category 2
<b>Acute Tox. 3</b>	Acute toxicity, category 3
<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>Asp. Tox. 1</b>	Aspiration hazard, category 1
<b>Skin Corr. 1B</b>	Skin corrosion, category 1B
<b>Eye Irrit. 2</b>	Eye irritation, category 2
<b>Skin Irrit. 2</b>	Skin irritation, category 2
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>Skin Sens. 1</b>	Skin sensitization, category 1
<b>Aquatic Acute 1</b>	Hazardous to the aquatic environment, acute toxicity, category 1
<b>Aquatic Chronic 1</b>	Hazardous to the aquatic environment, chronic toxicity, 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>H228</b>	Flammable solid.
<b>H260</b>	In contact with water releases flammable gases which may ignite spontaneously.
<b>H330</b>	Fatal if inhaled.
<b>H301</b>	Toxic if swallowed.
<b>H311</b>	Toxic in contact with skin.
<b>H302</b>	Harmful if swallowed.
<b>H304</b>	May be fatal if swallowed and enters airways.
<b>H314</b>	Causes severe skin burns and eye damage.
<b>H319</b>	Causes serious eye irritation.
<b>H315</b>	Causes skin irritation.
<b>H335</b>	May cause respiratory irritation.
<b>H317</b>	May cause an allergic skin reaction.
<b>H400</b>	Very toxic to aquatic life.
<b>H410</b>	Very toxic to aquatic life with long lasting effects.
<b>H411</b>	Toxic to aquatic life with long lasting effects.
<b>H412</b>	Harmful to aquatic life with long lasting effects.
<b>EUH210</b>	Safety data sheet available on request.

#### LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 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 NUMBER: Identifier in Annex VI of CLP

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

- 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: EC Regulation 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 STEL: Short-term exposure limit
- TWA: Time-weighted average 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) 790/2009 (I Atp. CLP) of the European Parliament
  4. Regulation (EU) 2015/830 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
  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)
- 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.

**Changes to previous review:**

The following sections were modified:

02 / 03 / 08 / 09 / 11 / 15 / 16.

Changed TLVs in section 8.1 for following countries:

ROU,