

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

Code: **27R**
Product name: **NORDPROM SV**

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

Intended use: **ADHESION PRIMER FOR COATED SURFACES**

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**Product distribution by: **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 2015/830.

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:

Flammable liquid, category 2	H225	Highly flammable liquid and vapour.
Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.

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:

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification ... / >>

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P370+P378	In case of fire: use carbon anhydride, foam, nebulized water to extinguish.
P261	Avoid breathing dust / fume / gas / mist / vapours / spray.
P233	Keep container tightly closed.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.

Contains: 3-AMINOPROPYLTRYETHOXYSILANE

VOC (Directive 2004/42/EC) :

Binding primers.

VOC given in g/litre of product in a ready-to-use condition : 746,55

Limit value: 750,00

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**3.2. Mixtures**

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
ETHANOL		
CAS	64-17-5 75 ≤ x < 100	Flam. Liq. 2 H225, Eye Irrit. 2 H319
EC	200-578-6	
INDEX	603-002-00-5	
Reg. no.	01-2119457290-43	
3-AMINOPROPYLTRYETHOXYSILANE		
CAS	919-30-2 1 ≤ x < 3	Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317
EC	213-048-4	
INDEX		
Reg. no.	01-2119480479-24	
METHYL ETHYL KETONE		
CAS	78-93-3 0 ≤ x < 1	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC	201-159-0	
INDEX	606-002-00-3	
Reg. no.	01-2119457290-43	

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

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. 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 procedures.

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

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

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

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

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. 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. 246/2018 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	TRGS 900 - Seite 1 von 69 (Fassung 29.03.2019)- Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte
ESP	España	LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST)
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Third edition, published 2018)
GRC	Ελλάδα	ΕΦΗΜΕΡΙΔΑ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ - ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 152 - 21 Αυγούστου 2018
ITA	Italia	DIRETTIVA (UE) 2017/164 DELLA COMMISSIONE del 31 gennaio 2017
NLD	Nederland	Regeling van de Staatssecretaris van Sociale Zaken en Werkgelegenheid van 13 juli 2018, 2018-0000118517 tot wijziging van de Arbeidsomstandighedenregeling in verband met de implementatie van Richtlijn 2017/164 in Bijlage XIII
POL	Polska	ROZPORZĄDZENIE MINISTRA RODZINY, PRACY I POLITYKI SPOŁECZNEJ z dnia 12 czerwca 2018 r
PRT	Portugal	Ministério da Economia e do Emprego Consolida as prescrições mínimas em matéria de protecção dos trabalhadores contra os riscos para a segurança e a saúde devido à exposição a agentes químicos no trabalho - Diário da República, 1.ª série - N.º 111 - 11 de junho de 2018
SVN	Slovenija	Uradni list Republike Slovenije 04.12.2018 - Uradnem listu RS št. 78 -PRAVILNIK o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu
EU	OEL EU	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.
	TLV-ACGIH	ACGIH 2019

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	1000		3000		
AGW	DEU	960	500	1920	1000	
MAK	DEU	960	500	1920	1000	
VLA	ESP			1910	1000	
VLEP	FRA	1900	1000	9500	5000	
WEL	GBR	1920	1000			
TLV	GRC	1900	1000			
TGG	NLD	260		1900		SKIN
NDS/NDSch	POL	1900				
TLV-ACGIH				1884	1000	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for marine water sediment	2,9	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the terrestrial compartment	0,63	mg/kg/d

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

METHYL ETHYL KETONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m ³	ppm	mg/m ³	ppm	
TLV	CZE	600	203,4	900	305,1	
AGW	DEU	600	200	600	200	SKIN
MAK	DEU	600	200	600	200	SKIN
VLA	ESP	600	200	900	300	
VLEP	FRA	600	200	900	300	SKIN
WEL	GBR	600	200	899	300	SKIN
TLV	GRC	600	200	900	300	
VLEP	ITA	600	200	900	300	
TGG	NLD	590		500		SKIN
NDS/NDSch	POL	450		900		SKIN
VLE	PRT	600	200	900	300	
MV	SVN	600	200	900	300	SKIN
OEL	EU	600	200	900	300	
TLV-ACGIH		590	200	885	300	

Predicted no-effect concentration - PNEC

Normal value in fresh water	55,8	mg/l
Normal value in marine water	55,8	mg/l
Normal value for fresh water sediment	284,74	mg/kg
Normal value of STP microorganisms	709	mg/l
Normal value for the food chain (secondary poisoning)	100	mg/kg
Normal value for the terrestrial compartment	22,5	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				31				
				mg/kg bw/d				
Inhalation				106				600
				mg/m ³				mg/m ³
Skin				412				1161
				mg/kg bw/d				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.

Provide an emergency shower with face and eye wash station.

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 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.

Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

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, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (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

Properties	Value	Information
Appearance	liquid	
Colour	colourless	
Odour	characteristic of solvent	
Odour threshold	Not available	
pH	Not available	
Melting point / freezing point	Not available	
Initial boiling point	> 35 °C	
Boiling range	Not available	
Flash point	< 23 °C	
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	0,79 kg/l	
Solubility	soluble in organic solvents	
Partition coefficient: n-octanol/water	Not available	
Auto-ignition temperature	Not available	
Decomposition temperature	Not available	
Viscosity	Not available	
Explosive properties	Not available	
Oxidising properties	Not available	

9.2. Other information

VOC (Directive 2004/42/EC) :	94,50 % - 746,55	g/litre
VOC (volatile carbon) :	49,33 % - 389,67	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.

METHYL ETHYL KETONE

Reacts with: light metals, strong oxidants. Attacks various types of plastic materials. Decomposes under the effect of heat.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL

Risk of explosion on contact with: alkaline metals, alkaline oxides, calcium hypochlorite, sulphur monofluoride, acetic anhydride, acids, concentrated hydrogen peroxide, perchlorates, perchloric acid, perchloronitrile, mercury nitrate, nitric acid, silver, silver nitrate, ammonia, silver oxide, ammonia, strong oxidising agents, nitrogen dioxide. May react dangerously with: bromoacetylene, chlorine acetylene, bromine trifluoride, chromium trioxide, chromyl chloride, fluorine, potassium tert-butoxide, lithium hydride, phosphorus trioxide, black platinum, zirconium (IV) chloride, zirconium (IV) iodide. Forms explosive mixtures with: air.

METHYL ETHYL KETONE

May form peroxides with: air, light, strong oxidising agents. Risk of explosion on contact with: hydrogen peroxide, nitric acid, sulphuric acid. May react dangerously with: oxidising agents, trichloromethane, alkalis. Forms explosive mixtures with: air.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

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

Avoid exposure to: sources of heat, naked flames.

METHYL ETHYL KETONE

Avoid exposure to: sources of heat.

10.5. Incompatible materials**METHYL ETHYL KETONE**

Incompatible with: strong oxidants, inorganic acids, ammonia, copper, chloroform.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

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.

3-AMINOPROPYLTRYETHOXYSILANE
3-AMINOPROPYLTRYETHOXYSILANE:
LD50 (oral, rat): 3500 mg/kg
LD50 (skin, rabbit): 4000 mg/kg.

3-AMINOPROPYLTRYETHOXYSILANE
3-AMINOPROPYLTRYETHOXYSILANE:
LD50 (oral, rat): 3500 mg/kg
LD50 (skin, rabbit): 4000 mg/kg.

11.1. Information on toxicological effectsMetabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

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

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	Not classified (no significant component)

METHYL ETHYL KETONE	
LD50 (Oral)	2737 mg/kg Rat
LD50 (Dermal)	6480 mg/kg Rabbit
LC50 (Inhalation)	23,5 mg/l/8h Rat

ETHANOL	
LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

SECTION 11. Toxicological information ... / >>

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

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

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

Information not available

12.2. Persistence and degradability

METHYL ETHYL KETONE

Solubility in water > 10000 mg/l
Rapidly degradable

ETHANOL

Solubility in water 1000 - 10000 mg/l
Rapidly degradable

12.3. Bioaccumulative potential

METHYL ETHYL KETONE

Partition coefficient: n-octanol/water 0,3

ETHANOL

Partition coefficient: n-octanol/water -0,35

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 greater than 0,1%.

SECTION 12. Ecological information ... / >>

12.6. 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

ADR / RID, IMDG, IATA: 1993

14.2. UN proper shipping name

ADR / RID: FLAMMABLE LIQUID, N.O.S. (ETHANOL)

IMDG: FLAMMABLE LIQUID, N.O.S. (ETHANOL)

IATA: FLAMMABLE LIQUID, N.O.S. (ETHANOL)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3



IMDG: Class: 3 Label: 3



IATA: Class: 3 Label: 3



14.4. Packing group

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards

ADR / RID: NO

IMDG: NO

IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 33 Special Provision: 640C	Limited Quantities: 1 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-E	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 353
	Special Instructions:	A3	

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: P5c

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

Product
Point 3 - 40

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

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) :

Binding primers.

15.2. Chemical safety assessmentA chemical safety assessment has been performed for the following contained substances
METHYL ETHYL KETONE**SECTION 16. Other information**

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

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
STOT SE 3	Specific target organ toxicity - single exposure, category 3
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.

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

SECTION 16. Other information ... / >>

- IC50: Immobilization Concentration 50% - IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: 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: 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)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
16. Regulation (EU) 2019/521 (XII 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.

Product's classification is based on the calculation methods set out in Annex I of the CLP Regulation, unless otherwise indicated in sections 11 and 12.

The data for evaluation of chemical-physical properties are reported in section 9.

Changes to previous review:

The following sections were modified:

02 / 03 / 04 / 08 / 09 / 10 / 11 / 12 / 16.

Changed TLVs in section 8.1 for following countries:

CZE, DEU, ESP, FRA, GBR, GRC, NLD, POL, TLV-ACGIH,