

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: **AS1621**
Product name **AS1621**

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

Intended use **Adhesive sealant.**

1.3. Details of the supplier of the safety data sheet

Name **ACC Silicones LTD**
Full address **Amber House Showground Road**
District and Country **TA6 6A Bridgwater (Somerset)**
England
Tel. **+44(0)1278411400**
Fax **+44(0)1278411444**e-mail address of the competent person
responsible for the Safety Data Sheet**info@acc-silicones.com**

1.4. Emergency telephone number

For urgent inquiries refer to

For all enquiries except Sweden and Hungary: +44(0)1278411400**Sweden: Ring 112 vid inträffade förgiftningstillbud och begär giftinformation - dygnet runt.****Ring 010-456-6700 i mindre brådskande fall - dygnet runt. Allmänna och förebyggande frågor om akuta förgiftningar besvaras vardagar kl 9-17.****Hungary: Egészségügyi Toxikológiai Tájékoztató Szolgálat (ETTSZ) 1097 Budapest, Nagyvárad tér 2, 06-80-201-199 (zöld szám, ingyenesen, éjjel-nappal hívható) 06-1-4761120**

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:

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: **Warning**

Hazard statements:

SECTION 2. Hazards identification ... / >>

H317 May cause an allergic skin reaction.
EUH208 Contains: BUTAN-2-ONE O, O', O", O''' -SILANETETRAYLTETRAOXIME
May produce an allergic reaction.

Precautionary statements:

P261 Avoid breathing dust / fume / gas / mist / vapours / spray.
P280 Wear protective gloves.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

Contains: VINYLTRIS (2-BUTANONEOXIME) SILANE

2.3. Other hazards

vPvB substances contained:
DODECAMETHYL CYCLOHEXASILOXANE
DECAMETHYLCYCLOPENTASILOXANE

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
AMORPHOUS SILICATE HYDRATE		
CAS	7631-86-9 11.5 ≤ x < 13	Substance with a community workplace exposure limit.
EC	231-545-4	
INDEX		
Reg. no.	01-2119379499-16-0134	
VINYLTRIS (2-BUTANONEOXIME) SILANE		
CAS	2224-33-1 2.5 ≤ x < 3	STOT RE 2 H373, Eye Dam. 1 H318, Skin Sens. 1 H317
EC	218-747-8	
INDEX		
Reg. no.	01-2119970537-27	
BUTAN-2-ONE O, O', O", O''' -SILANETETRAYLTETRAOXIME		
CAS	34206-40-1 0.6 ≤ x < 0.7	Flam. Sol. 1 H228, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Sens. 1 H317
EC	251-882-0	
INDEX		
Reg. no.	01-2119982966-14	
DODECAMETHYL CYCLOHEXASILOXANE		
CAS	540-97-6 0.1 ≤ x < 0.2	Substance vPvB
EC	208-762-8	
INDEX		
Reg. no.	01-2119517435-42	
DECAMETHYLCYCLOPENTASILOXANE		
CAS	541-02-6 0.1 ≤ x < 0.2	Substance vPvB
EC	208-764-9	
INDEX		
Reg. no.	01-2119511367-43	
OCTAMETHYLTETRACYCLOSIOXANE		
CAS	556-67-2 0 ≤ x < 0.1	Flam. Liq. 3 H226, Repr. 2 H361f, Aquatic Chronic 2 H411
EC	209-136-7	
INDEX		
Reg. no.	01-2119529238-36	

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

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

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

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

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

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

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

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

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

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

DEU	Deutschland	TRGS 900 (Fassung 31.1.2018 ber.) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte
GBR	United Kingdom	EH40/2005 Workplace exposure limits
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.

AMORPHOUS SILICATE HYDRATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	4				INHAL
MAK	DEU	4				INHAL
WEL	GBR	6				INHAL
WEL	GBR	2.4				RESP
OEL	EU	6				INHAL
OEL	EU	2.4				RESP

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation					4 mg/m3	VND	4 mg/m3	VND

VINYLTRIS (2-BUTANONEOXIME) SILANE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.26	mg/l
Normal value in marine water	0.026	mg/l
Normal value for fresh water sediment	1.02	mg/kg
Normal value for marine water sediment	0.102	mg/kg/d
Normal value for water, intermittent release	0.12	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	0.05	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	0.052 mg/kg bw/d				
Inhalation	VND	0.181 mg/m3					VND	1.03 mg/m3
Skin			VND	0.052 mg/kg bw/d			VND	0.146 mg/kg bw/d

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

DODECAMETHYL CYCLOHEXASILOXANE

Predicted no-effect concentration - PNEC

Normal value for fresh water sediment	2.826	mg/kg
Normal value for marine water sediment	0.282	mg/kg
Normal value of STP microorganisms	1	mg/l
Normal value for the terrestrial compartment	3.336	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				1.7 mg/kg bw/d				
Inhalation			0.3 mg/m3	2.7 mg/m3			1.22 mg/m3	11 mg/m3

DECAMETHYLCYCLOPENTASILOXANE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.0012	mg/l
Normal value in marine water	0.00012	mg/l
Normal value for fresh water sediment	2.4	mg/kg
Normal value for marine water sediment	0.24	mg/kg
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	1.1	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		5		5 mg/kg bw/d				
Inhalation			4.3 mg/m3	17.3 mg/m3			24.2 mg/m3	97.3 mg/m3

OCTAMETHYLTETRACYCLOSILOXANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		RESP
		mg/m3	ppm	mg/m3	ppm	
OEL	EU		10			

Predicted no-effect concentration - PNEC

Normal value in marine water	0.044	mg/l
Normal value for fresh water sediment	0.128	mg/kg
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0.16	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation	61 mg/m3	305 mg/m3	61 mg/m3	305 mg/m3				

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 Directive 89/686/EEC and standard EN ISO 20344). Wash

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

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	viscous liquid
Colour	white
Odour	characteristic
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
Flash point	> 150 °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	Not available
Solubility	immiscible with water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	> 400 °C
Decomposition temperature	Not available
Viscosity	viscous liquid
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

Information not available

SECTION 10. Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

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

10.4. Conditions to avoid

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

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

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

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

DECAMETHYLCYCLOPENTASILOXANE	
LD50 (Oral)	4800 mg/kg (Rat)

AMORPHOUS SILICATE HYDRATE	
LD50 (Oral)	> 2000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rat
LC50 (Inhalation)	> 2.2 mg/l/1h Rat

VINYLTRIS (2-BUTANONEOXIME) SILANE	
LD50 (Oral)	> 2000 mg/kg
LD50 (Dermal)	> 2009 mg/kg

BUTAN-2-ONE O, O', O'', O''' -SILANETETRAYLTETRAOXIME	
LD50 (Oral)	2528 mg/kg

OCTAMETHYLTETRACYCLOSILOXANE	
LC50 (Inhalation)	2975 ppm/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

SECTION 11. Toxicological information ... / >>

Sensitising for the skin
May produce an allergic reaction.

Contains:
BUTAN-2-ONE O, O', O'', O''' -SILANETETRAYLTETRAOXIME

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

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

VINYLTRIS (2-BUTANONEOXIME) SILANE	
LC50 - for Fish	> 100 mg/l/96h
Chronic NOEC for Fish	> 100 mg/l

12.2. Persistence and degradability

AMORPHOUS SILICATE HYDRATE	
Solubility in water	0,1 - 100 mg/l
Degradability: information not available	

VINYLTRIS (2-BUTANONEOXIME) SILANE
NOT rapidly degradable

12.3. Bioaccumulative potential

AMORPHOUS SILICATE HYDRATE	
Partition coefficient: n-octanol/water	0.53

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

vPvB substances contained:

SECTION 12. Ecological information ... / >>DODECAMETHYL CYCLOHEXASILOXANE
DECAMETHYLCYCLOPENTASILOXANE**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.

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: NoneRestrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006Product

Point 3

Contained substance

Point 70 DECAMETHYLCYCLOPENTASILOXANE

Reg. no.: 01-2119511367-43

Point 70 OCTAMETHYLTETRACYCLOSILOXANE

Reg. no.: 01-2119529238-36

Substances in Candidate List (Art. 59 REACH)

SECTION 15. Regulatory information ... / >>

DODECAMETHYL CYCLOHEXASILOXANE

Reg. no.: 01-2119517435-42

DECAMETHYLCYCLOPENTASILOXANE

Reg. no.: 01-2119511367-43

OCTAMETHYLTETRACYCLOSILOXANE

Reg. no.: 01-2119529238-36

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.

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:

Flam. Liq. 3	Flammable liquid, category 3
Flam. Sol. 1	Flammable solid, category 1
Repr. 2	Reproductive toxicity, category 2
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H226	Flammable liquid and vapour.
H228	Flammable solid.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.

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
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation

SECTION 16. Other information ... / >>

- 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 / 12.