

Safety Data Sheet

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

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

1.1. Product identifier

Code: **0740001**
Product name: **BOND PLUS**
UFI: **TY10-K0D8-E00J-VRHC**

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

Intended use: **Adhesive, flexibilising, reactive latex for mortars and plasters**

1.3. Details of the supplier of the safety data sheet

Name: **AZICHEM SRL**
Full address: **Via G. Gentile 16/A**
District and Country: **46044 Goito (Mantova) Italia**
Tel.: **0376604185**
e-mail address of the competent person responsible for the Safety Data Sheet: **laboratorio@azichem.com**

1.4. Emergency telephone number

For urgent inquiries refer to:
Osp. Pediatrico Bambino Gesù ROMA: 06 68593726
Az. Osp. Univ. Foggia FOGGIA: 800183459
Az. Osp. "A. Cardarelli" NAPOLI: 081-5453333
Policlinico "Umberto I" ROMA: 06-49978000
Policlinico "A. Gemelli" ROMA: 06-3054343
Az. Osp. "Careggi" U.O. Tossicologia Medica FIRENZE: 055-7947819
Centro Nazionale di Informazione Tossicologica PAVIA: 0382-24444
Osp. Niguarda Ca' Granda MILANO: 02-66101029
Azienda Ospedaliera Papa Giovanni XXII BERGAMO: 800883300
Azienda Ospedaliera Integrata VERONA: 800011858

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

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

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

Hazard classification and indication:

Eye irritation, category 2	H319	Causes serious eye 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: **Warning**

SECTION 2. Hazards identification ... / >>

Hazard statements:

- H319** Causes serious eye irritation.
H317 May cause an allergic skin reaction.

Precautionary statements:

- P280** Wear protective gloves / eye protection / face protection.
P261 Avoid breathing dust / fume / gas / mist / vapours / spray.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

Contains: 2-METHYLISOTHIAZOL-3(2H)-ONE

2.3. Other hazards

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

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

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
SODIUM SILICATE POWDER		
INDEX	$1 \leq x < 1,5$	Eye Dam. 1 H318, Skin Irrit. 2 H315
EC 215-687-4		
CAS 1344-09-8		
REACH Reg. 01-2119448725-31		
2-METHYLISOTHIAZOL-3(2H)-ONE		
INDEX	$0,0015 \leq x < 0,06$	Acute Tox. 2 H330, Acute Tox. 3 H301, Acute Tox. 3 H311, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1, EUH071
EC 220-239-6		Skin Sens. 1A H317: $\geq 0,0015\%$
CAS 2682-20-4		LD50 Oral: 120 mg/kg, LD50 Dermal: 242 mg/kg, LC50 Inhalation mists/powders: 0,11 mg/l/4h
REACH Reg. 01-2120764690-50-xxxx		

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

In case of doubt or in the presence of symptoms contact a doctor and show him this document.

In case of more severe symptoms, ask for immediate medical aid.

EYES: Remove, if present, contact lenses if the situation allows you to do so easily. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Take off immediately all contaminated clothing. Wash immediately and thoroughly with running water (and soap if possible). Get medical advice/attention. Avoid further contact with contaminated clothing.

INGESTION: Do not induce vomiting unless explicitly authorised by a doctor. Do not give anything by mouth to an unconscious person. Get medical advice/attention.

INHALATION: Remove victim to fresh air, away from the accident scene. Get medical advice/attention.

Rescuer protection

It is good practice for rescuers lending support to a person who has been exposed to a chemical substance or to a mixture to wear personal protective equipment. The nature of such protection depends on the hazard level of the substance or mixture, on the type of exposure and on the extent of the contamination. In the absence of other more specific indications, use of disposable gloves in the event of possible contact with body fluids is recommended. For the type of PPE suitable for the characteristics of the substance or mixture, see section 8.

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.

DELAYED EFFECTS: Based on the information currently available, there are no known cases of delayed effects following exposure to this product.

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

If skin irritation or rash occurs: Get medical advice / attention.

Means to have available in the workplace for specific and immediate treatment

Running water for skin and eye wash.

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. 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.

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

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

SODIUM SILICATE POWDER

Predicted no-effect concentration - PNEC

Normal value in fresh water	7,5	mg/l
Normal value in marine water	1	mg/l
Normal value for fresh water sediment	NPI	
Normal value for marine water sediment	NPI	
Normal value for marine water, intermittent release	75	mg/l
Normal value of STP microorganisms	348	mg/l
Normal value for the food chain (secondary poisoning)	348	mg/kg
Normal value for the terrestrial compartment	NPI	
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers		Chronic local	Chronic systemic	Effects on workers			
	Acute local	Acute systemic			Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		0.8 mg/kg bw/d				
Inhalation	MED	NPI	MED	1.38 mg/m3	MED	NPI	MED	5.61 mg/m3
Skin	MED	NPI	MED	0.8 mg/kg bw/d	MED	NPI	MED	1.59 mg/kg bw/d

2-METHYLISOTHIAZOL-3(2H)-ONE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,00339	mg/l
Normal value in marine water	0,00339	mg/l
Normal value of STP microorganisms	0,23	mg/l
Normal value for the terrestrial compartment	0,047	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers		Chronic local	Chronic systemic	Effects on workers			
	Acute local	Acute systemic			Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		0,053 mg/kg bw/d		0,027 mg/kg bw/d				
Inhalation	0,043 mg/m3		0,021 mg/m3		0,043 mg/m3		0,021 mg/m3	

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

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

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

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

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

Protect hands with category III work gloves.

The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, permeability time. 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

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

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

EYE PROTECTION

Wear airtight protective goggles (see standard EN ISO 16321).

RESPIRATORY PROTECTION

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. 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).

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	white	
Odour	not available	
Melting point / freezing point	not available	
Initial boiling point	not available	
Flammability	not available	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	not available	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	10	
Kinematic viscosity	not available	
Solubility	not available	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	1,01	g/cm3
Relative vapour density	not available	
Particle characteristics	not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU) 2,13 % - 21,46 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.

SODIUM SILICATE POWDER

May develop: hydrogen. On contact with: aluminium, tin, zinc.

10.2. Chemical stability

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

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

10.3. Possibility of hazardous reactions

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

SODIUM SILICATE POWDER

May react dangerously with: strong acids.

10.4. Conditions to avoid

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

10.5. Incompatible materials

SODIUM SILICATE POWDER

Keep away from: acids.

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 hazard classes as defined in Regulation (EC) No 1272/2008

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

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

ATE (Inhalation) of the mixture:

Not classified (no significant component)

ATE (Oral) of the mixture:

Not classified (no significant component)

ATE (Dermal) of the mixture:

Not classified (no significant component)

SODIUM SILICATE POWDER

LD50 (Dermal):

> 5000 mg/kg Rat (EPA OPPTS 870.1200)

LD50 (Oral):

3400 mg/kg Rat (equivalent or similar to OECD Guideline 401)

LC50 (Inhalation mists/powders):

2,06 mg/l/4h Rat (EPA OPPTS 870.1300)

2-METHYLISOTHIAZOL-3(2H)-ONE

LD50 (Dermal):

242 mg/kg

LD50 (Oral):

120 mg/kg

LC50 (Inhalation mists/powders):

0,11 mg/l/4h

The substance is toxic by inhalation, by ingestion and by skin contact (Harmonised classification, Annex VI, Reg. 1272/2008)

Method: EPA 40 CFR 158.340

Reliability (Klimisch score): 1

Species: rat (CrI:CD@BR; Male/Female)

Routes of exposure: oral

Results: LD50= 120 mg/kg

Method: OECD 403

Reliability (Klimisch score): 1

Species: rat (CrI:CD@BR; Male/Female)

SECTION 11. Toxicological information ... / >>

Routes of exposure: inhalation (dusts/mists)

Results: LD50=0.11 mg/kg 4h.

Method: OECD 402

Reliability (Klimisch score): 1

Species: rat (CrI:CD@BR; Male/Female)

Routes of exposure: dermal

Results: LC50=242 mg/kg

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SODIUM SILICATE POWDER

Method: OECD Guideline 404

Species: rabbit

Result: irritating

2-METHYLISOTHIAZOL-3(2H)-ONE

Method: OECD 404

Reliability (Klimisch score): 1

Species: rabbit (New Zealand White)

Routes of exposure: dermal

Results: The substance causes severe skin burns (Harmonized classification, Annex VI, Reg. 1272/2008)

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

2-METHYLISOTHIAZOL-3(2H)-ONE

The substance causes serious eye damage (Harmonised classification, Annex VI, Reg. 1272/2008)

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

Skin sensitization

2-METHYLISOTHIAZOL-3(2H)-ONE

Method: Guinea pig maximization test, Buehler test, Local lymph node assay.

Reliability (Klimisch score): 1

Species: Guinea pig (Hartley)

Routes of exposure: dermal

Results: The substance may cause an allergic skin reaction. (Harmonized classification, Annex VI, Reg. 1272/2008)

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

2-METHYLISOTHIAZOL-3(2H)-ONE

Method: OECD 471 - In vitro test

Reliability (Klimisch score): 1

Species: Salmonella typhimurium

Results: negative

Method: OECD 474

Reliability (Klimisch score): 1

Species: mouse (CD-1; male/female)

Routes of exposure: oral

Results: negative.

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>**2-METHYLISOTHIAZOL-3(2H)-ONE**

Method: study report

Reliability (Klimisch score): 2

Species: Mouse (CD-1; male)

Routes of exposure: dermal

Results: negative.

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

2-METHYLISOTHIAZOL-3(2H)-ONE

Based on available data, the substance does not present reproductive toxicity effects and is not classified under the relevant CLP hazard class.

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

2-METHYLISOTHIAZOL-3(2H)-ONE

Based on the weight of evidence of available data determined by expert judgment, the substance does not present specific toxicity effects for target organs for single exposure and is not classified under the relevant CLP hazard class.

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

2-METHYLISOTHIAZOL-3(2H)-ONE

Based on available data, the substance does not present specific target organ toxicity effects upon repeated exposure and is not classified under the relevant CLP hazard class.

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

2-METHYLISOTHIAZOL-3(2H)-ONE

There are no data available on the danger in case of aspiration.

11.2. Information on other hazards

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

SECTION 12. Ecological information

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**SODIUM SILICATE POWDER**

LC50 - for Fish

EC50 - for Crustacea

EC50 - for Algae / Aquatic Plants

260 mg/l/96h Oncorhynchus mykiss

1700 mg/l/48h Daphnia magna (according to guideline EU Method C.2)

207 mg/l/72h Desmodesmus subspicatus

2-METHYLISOTHIAZOL-3(2H)-ONE

LC50 - for Fish

EC50 - for Crustacea

Chronic NOEC for Fish

Chronic NOEC for Crustacea

4,77 mg/l/96h Oncorhynchus mykiss (OECD 203)

0,998 mg/l/48h Daphnia magna (OECD 202)

2,1 mg/l/33d Pimephales promelas (OECD 210)

0,0442 mg/l/21d Daphnia magna (OECD 211)

12.2. Persistence and degradability**2-METHYLISOTHIAZOL-3(2H)-ONE**

NOT rapidly degradable

48-56% in 28 giorni (OECD 301 B)

12.3. Bioaccumulative potential

SECTION 12. Ecological information ... / >>

2-METHYLISOTHIAZOL-3(2H)-ONE

Partition coefficient: n-octanol/water

-0,32 T = 20 °C, pH = 7 (OECD 117)

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessmentOn the basis of available data, the product does not contain any PBT or vPvB in percentage $\geq$ than 0,1%.**12.6. Endocrine disrupting properties**

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

12.7. Other adverse effects

Information not available

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

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

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

The management of waste arising from the use or dispersal of this product must be organised in accordance with occupational safety regulations. See section 8 for possible need for PPE.

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 or ID 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. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: None

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

Product

Point 3 - 40

Contained substance

Point 75

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

Substances in Candidate List (Art. 59 REACH)

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

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

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

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances
SODIUM SILICATE POWDER

SECTION 16. Other information

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

Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

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

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

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
 3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
 4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
 10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
 13. Regulation (EU) 2017/776 (X Atp. CLP)
 14. Regulation (EU) 2018/669 (XI Atp. CLP)
 15. Regulation (EU) 2019/521 (XII Atp. CLP)
 16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
 17. Regulation (EU) 2019/1148
 18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
 19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
 20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
 21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
 22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
 23. Delegated Regulation (UE) 2023/707
 24. Delegated Regulation (UE) 2023/1434 (XIX Atp. CLP)
 25. Delegated Regulation (UE) 2023/1435 (XX Atp. CLP)
 26. Delegated Regulation (UE) 2024/197 (XXI Atp. CLP)
 27. Delegated Regulation (UE) 2024/2564 (XXII 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

SECTION 16. Other information ... / >>

- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

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

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

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

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

CALCULATION METHODS FOR CLASSIFICATION

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

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

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

Changes to previous review:

The following sections were modified:

02 / 04 / 09 / 11 / 13 / 15 / 16.