

Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

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

1.1. Product identifier

Code: **T32**
Product name: **Antibacter**
UFI: **R030-N0KR-P00H-T2EJ**

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

Intended use: **Ready to use disinfectant detergent. Medical surgical facility - Ministry of Health
Reg. No. 20051**

Identified Uses	Industrial	Professional	Consumer
Biocides	-	PC: 8.	-
Biocides	-	-	PC: 8.

Uses Advised Against

Any use other than the identified uses

1.3. Details of the supplier of the safety data sheet

Name: **FIRMA SRL**
Full address: **VIA PER MODENA, 28**
District and Country: **42015 CORREGGIO (RE) IT**
Tel.: **0522 691880**
Fax: **0522 631277**

e-mail address of the competent person responsible for the Safety Data Sheet: **SDS@FIRMACHIMICA.IT**

Supplier: **FIRMA SRL**

1.4. Emergency telephone number

For urgent inquiries refer to: **Tel. 0039 0522 691880 Office hours: 08.30 - 12.30, 14.00 - 18.00
Tel. 0039 0522 036527 other times – laboratorio@firmachimica.it**

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 irritation, category 2	H315	Causes skin irritation.

2.2. Label elements

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

Hazard pictograms:



SECTION 2. Hazards identification ... / >>

Signal words: Warning

Hazard statements:

H319 Causes serious eye irritation.
H315 Causes skin irritation.

Precautionary statements:

P280 Wear protective gloves / clothing and face protection.
P302+P352 IN CASE OF CONTACT WITH SKIN: wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 Get medical advice / attention if you feel unwell.

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)	
2-BUTOXYETHANOL			
CAS	111-76-2	10 ≤ x < 15	Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315 LD50 Oral: 1300 mg/kg, STA Dermal: 1100 mg/kg, STA Inhalation vapours: 11 mg/l
EC	203-905-0		
INDEX	603-014-00-0		
REACH Reg.	01-2119475108-36		
CLORURO DI DIDECILMETILAMMONIO			
CAS	7173-51-5	0,1 ≤ x < 1	Acute Tox. 3 H301, Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=10, Aquatic Chronic 2 H411, EUH071 STA Oral: 100 mg/kg, LD50 Oral: 658 mg/kg
EC	230-525-2		
INDEX	612-131-00-6		
REACH Reg.	01-2119945987-15-0000		
PROPAN-2-OL			
CAS	67-63-0	0 ≤ x < 1	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336
EC	200-661-7		
INDEX	603-117-00-0		
REACH Reg.	01-2119457558-25		
EDTA			
CAS	64-02-8	0 ≤ x < 1	Acute Tox. 4 H302, Eye Dam. 1 H318 LD50 Oral: 1780 mg/kg
EC	200-573-9		
INDEX			
REACH Reg.	01-2119486762-27		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

In case of doubt or when symptoms remain, seek medical advice keeping the information sheet of the preparation available. Do not administer unconscious persons by mouth.

4.1. Description of first aid measures

CONTACT WITH SKIN: wash the contaminated part with water and drain. If irritation persists or tissue damage occurs, consult a doctor if necessary.

CONTACT WITH EYES: remove contact lenses if present; wash the eyes with open eyelid with water. Consult a doctor.

INGESTION: Rinse mouth with water. Consult a doctor.

INHALATION: Remove the injured person from the danger area in a well ventilated area; if symptoms of discomfort appear, seek medical assistance.

SECTION 4. First aid measures ... / >>**4.2. Most important symptoms and effects, both acute and delayed**

No specific information on the symptoms and effects caused by the product is known.
For symptoms and effects due to the substances contained, see chap. 11.

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 MEDIA: The extinguishing media are the traditional ones: carbon dioxide, foam and chemical powder. For leaks and spills of the product that have not ignited, the nebulized water can be used to disperse the flammable vapors and to protect the people involved in stopping the loss. NON-SUITABLE EXTINGUISHING MEDIA: Do not use water jets. Water is not effective for extinguishing the fire but it can be used to cool closed containers exposed to the flame, preventing bursts and explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS DUE TO EXPOSURE IN THE EVENT OF FIRE: Avoid breathing combustion products: carbon oxides.

5.3. Advice for firefighters

GENERAL INFORMATION: Cool the containers with water jets to avoid decomposition of the product and the development of substances potentially hazardous for health. Wear, if necessary, complete fire protection equipment. Collect extinguishing water that must not be discharged into drains. Dispose of the contaminated water used for the fire extinguisher and the residue according to the regulations in force. EQUIPMENT: Not necessary for small fires. If necessary, wear fire-fighting clothing such as a fireproof suit (EN469), fireproof gloves (EN659) and boots for firefighters (HO A29 or A30) depending on the amount of product and any other materials involved in the fire.

SECTION 6. Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Stop the leak if there is no danger. Wear appropriate protective equipment (including personal protective equipment referred to in section 8 of the safety data sheet) to prevent contamination of the skin, eyes and personal clothing. These indications are valid both for workers involved in the work and for emergency interventions.

6.2. Environmental precautions

Prevent the product from entering sewers, surface waters, water tables.

6.3. Methods and material for containment and cleaning up

Vacuum the leaked product into a suitable container. Evaluate the compatibility of the container to be used with the product, checking section 10. Absorb the remainder with inert absorbent material. Ensure adequate ventilation of the area affected by the loss. Disposal of the contaminated material must be carried out in accordance with the provisions of point 13.

6.4. Reference to other sections

Any information regarding personal protection and disposal is 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)

See the exposure scenarios attached to this safety datasheet.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.

PROPAN-2-OL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	492	200	983	400	

Predicted no-effect concentration - PNEC

Normal value in fresh water	140,9	mg/l
Normal value in marine water	140,9	mg/l
Normal value for fresh water sediment	552	mg/kg
Normal value for marine water sediment	552	mg/kg
Normal value for water, intermittent release	140,9	mg/l
Normal value of STP microorganisms	2251	mg/l
Normal value for the food chain (secondary poisoning)	160	mg/kg
Normal value for the terrestrial compartment	28	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers		Effects on workers		Chronic systemic
	Acute local	Acute systemic	Chronic local	Chronic systemic	
Oral			VND	26 mg/kg bw/d	
Inhalation			VND	89 mg/m3	VND 500 mg/m3
Skin			VND	319 mg/kg bw/d	VND 888 mg/kg bw/d

2-BUTOXYETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLEP	ITA	98	20	246	50	SKIN
OEL	EU	98	20	246	50	SKIN

Predicted no-effect concentration - PNEC

Normal value in fresh water	8,8	mg/l
Normal value in marine water	0,88	mg/l
Normal value for fresh water sediment	34,6	mg/kg
Normal value for marine water sediment	3,46	mg/kg
Normal value for water, intermittent release	9,1	mg/l
Normal value of STP microorganisms	463	mg/l
Normal value for the food chain (secondary poisoning)	20	mg/kg
Normal value for the terrestrial compartment	2,33	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers		Effects on workers		Chronic systemic
	Acute local	Acute systemic	Chronic local	Chronic systemic	
Oral		26,7 mg/kg bw/d		6,3 mg/kg bw/d	
Inhalation	147 mg/m3	426 mg/m3	59 mg/m3	246 mg/m3	1091 mg/m3 98 mg/m3

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

EDTA

Threshold Limit Value

Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m3	ppm	Remarks / Observations
OEL	EU	10				INHAL
OEL	EU	3				RESP

Predicted no-effect concentration - PNEC

Normal value in fresh water	2,83	mg/l
Normal value in marine water	0,283	mg/l
Normal value of STP microorganisms	50	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	Acute	Chronic	Chronic	Acute	Acute	Chronic	Chronic
	local	systemic	local	systemic	local	systemic	local	systemic
Oral				25 mg/kg bw/d				
Inhalation	1,2 mg/m3		0,6 mg/m3		3 mg/m3	3 mg/m3	1,5 mg/m3	1,5 mg/m3

CLORURO DI DIDECILMETILAMMONIO

Predicted no-effect concentration - PNEC

Normal value in fresh water	1,1	µg/L
Normal value in marine water	0,11	µg/L
Normal value for fresh water sediment	61,86	mg/kg
Normal value for marine water sediment	6,186	mg/kg
Normal value for water, intermittent release	0,21	µg/L
Normal value of STP microorganisms	0,14	mg/l
Normal value for the terrestrial compartment	1,4	mg/kg

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

Comply with the safety measures usually applied when handling chemical substances.

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.

When choosing risk management measures and operating conditions, consult the exposure scenarios attached.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

In the case of prolonged contact with the product, protect the hands with penetration-resistant work gloves (see standard EN 374).

Work glove material must be chosen according to the use process and the products that may form. Latex gloves may cause sensitivity reactions.

SKIN PROTECTION

Wear category III 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

None required.

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

None required, unless indicated otherwise in the chemical risk assessment.

ENVIRONMENTAL EXPOSURE CONTROLS

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

For information on controlling environmental exposure, see the exposure scenarios attached to this safety datasheet.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
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SECTION 9. Physical and chemical properties ... / >>

Appearance	liquid	
Colour	colourless	
Odour	characteristic	
Melting point / freezing point	< 0 °C	
Initial boiling point	> 90 °C	
Flammability	not applicable	Reason for missing data:miscela non infiammabile
Lower explosive limit	Not applicable	
Upper explosive limit	Not applicable	
Flash point	Not applicable	Reason for missing data:miscela non infiammabile
Auto-ignition temperature	Not available	
pH	8,2	
Kinematic viscosity	1	
Dynamic viscosity	1 mPa*s	Temperature: 20 °C
Solubility	completamente solubile in acqua	
Partition coefficient: n-octanol/water	Not available	
Vapour pressure	Not available	
Density and/or relative density	0,990-1,000 g/cm ³ /cm ³	
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)	12,14 % - 121,04	g/litre
VOC (volatile carbon)	7,42 % - 73,94	g/litre
Explosive properties	not explosive	
Oxidising properties	non ossidante	
Frost point	0 °C	
VOC (Directive 1999/13 / EC: 11.5%)	12%	

SECTION 10. Stability and reactivity

In the absence of data relating to the preparation, the following information refers to the substances that make up the mixture.

10.1. Reactivity

PROPAN-2-OL

It can react violently with oxidizing agents and strong acids.

EDTA

Decomposes at temperatures above 150 °C.

Avoid mixing with other substances, especially with bleaches and anionic substances.

10.2. Chemical stability

The product is stable in normal conditions of use

10.3. Possibility of hazardous reactions

2-BUTOXYETHANOL

Forms peroxides with: air,light.

Under normal conditions of use and storage, no dangerous reaction is expected.

10.4. Conditions to avoid

2-BUTOXYETHANOL

Avoid contact with: oxidising agents.

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

Avoid direct exposure to light heat sources

10.5. Incompatible materials

PROPAN-2-OL

Oxidizing agents, strong acids, chlorine-containing compounds, aldehydes, alkanolamines, alkaline and alkaline-earth metals (aluminum etc ...)

2-BUTOXYETHANOL

Incompatible with: strong oxidants.

Anionic surfatants

10.6. Hazardous decomposition products

PROPAN-2-OL

Carbon oxides. Formaldehyde.

In the event of excessive heating the product may decompose.

SECTION 11. Toxicological information

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 - vapours) of the mixture:	> 20 mg/l
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	>2000 mg/kg

PROPAN-2-OL

LD50 (Oral):	5840 mg/kg ratto
LD50 (Dermal):	13900 mg/kg ratto
LC50 (Inhalation vapours):	25000 mg/m3 ratto

2-BUTOXYETHANOL

LD50 (Oral):	1300 mg/kg Porcellino d'India
LD50 (Dermal):	> 2000 mg/kg porcellino d'India
STA (Dermal):	1100 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
LC50 (Inhalation vapours):	> 400 ppm/7h porcellino d'India
STA (Inhalation vapours):	11 mg/l estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)

EDTA

LD50 (Oral):	1780 mg/kg ratto
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CLORURO DI DIDECILMETILAMMONIO

LD50 (Oral):	658 mg/kg Ratto
LD50 (Dermal):	> 1000 mg/kg ratto

SECTION 11. Toxicological information ... / >>SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

Respiratory sensitization

Information not available

Skin sensitization

Information not available

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

Adverse effects on sexual function and fertility

Information not available

Adverse effects on development of the offspring

Information not available

Effects on or via lactation

Information not available

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

EDTA
Tratto respiratorio.

Route of exposure

EDTA
inalazione.

SECTION 11. Toxicological information ... / >>

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

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

PROPAN-2-OL	
LC50 - for Fish	9640 mg/l/96h Pimephales promelas
EC50 - for Crustacea	> 10000 mg/l 24h Daphnia Magna
EC10 for Algae / Aquatic Plants	1800 mg/l/7 giorni Scenedesmus quadricauda
2-BUTOXYETHANOL	
LC50 - for Fish	1474 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	1550 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	1840 mg/l/72h Pseudokirchneriella subcapitata
Chronic NOEC for Fish	> 100 mg/l 21 d Brachydanio rerio
Chronic NOEC for Crustacea	100 mg/l 21 d Daphnia magna
EDTA	
LC50 - for Fish	> 100 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	> 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h Pseudokirchneriella subcapitata
EC10 for Algae / Aquatic Plants	48,4 mg/l/72h Pseudokirchneriella subcapitata
Chronic NOEC for Fish	> 35,1 mg/l/21d Danio rerio
Chronic NOEC for Crustacea	25 mg/l/21d Daphnia magna
CLORURO DI DIDECEILMETILAMMONIO	
LC50 - for Fish	0,49 mg/l/96h Danio Rerio
EC50 - for Crustacea	0,03 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	0,06 mg/l/72h
Chronic NOEC for Fish	0,013 mg/l Pseudokirchneriella subcapitata (alghe cloroficee)
Chronic NOEC for Crustacea	0,021 mg/l Daphnia magna

12.2. Persistence and degradability

PROPAN-2-OL	
Rapidly degradable	> 70% in 10 giorni
2-BUTOXYETHANOL	
Rapidly degradable	
EDTA	
Solubility in water	500 g/l 20°C
NOT rapidly degradable	
CLORURO DI DIDECEILMETILAMMONIO	
Solubility in water	0,65 g/l 25°C
Rapidly degradable	OECD 301 D

12.3. Bioaccumulative potential

PROPAN-2-OL	
Partition coefficient: n-octanol/water	0,05 Log Kow

SECTION 12. Ecological information ... / >>

2-BUTOXYETHANOL
Partition coefficient: n-octanol/water 0,81 Log Kow 25 °C

EDTA
Partition coefficient: n-octanol/water < 0 Log Kow
BCF 1,8

COLORURO DI DIDECEILMETILAMMONIO
Partition coefficient: n-octanol/water 2,8 LogKow 20°C

12.4. Mobility in soil

2-BUTOXYETHANOL
Partition coefficient: soil/water 0,45 log KOC

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 \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.
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

SECTION 16. Other information ... / >>

H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

Use descriptor system:

PC 8 Biocidal products**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 as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- 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 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) 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)
- 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

SECTION 16. Other information ... / >>

- 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.

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 / 03 / 08 / 09 / 10 / 11 / 12 / 15 / 16.