

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: **0036161**
Product name **METALUX**
Chemical name and synonym **METALUX**

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

Sector of use **SU22 - professional uses SU21 – consumer uses**
Product category **PC35 - Washing and Cleaning Products (including solvent based products)**
Intended use **Cleansing / polishing cream for metals**

1.3. Details of the supplier of the safety data sheet

Name **MARBEC S.R.L.**
Full address **VIA CROCE ROSSA 5/i**
District and Country **51037 MONTALE (PISTOIA)**
ITALIA
Tel. +039 0573/959848

e-mail address of the competent person
responsible for the Safety Data Sheet

Supplier: **info@marbec.it**

1.4. Emergency telephone number

For urgent inquiries refer to

MARBEC srl
0573959848 h8.30-13 h14-18 o 3357267921
Numero telefonico di Centri Antiveleni attivi 24/24 ore
IRCSS Fondazione Maugeri –
Pavia 0039-0382-24444
CAV Ospedali Riuniti –
Bergamo 0039-800-883300
CAV Ospedale Niguarda Ca` Granda –
Milano 0039-02-66101029
CAV Ospedale Careggi- Firenze 0039-055-7947819
CAV Policlinico Gemelli –
Roma 0039-06-3054343
CAV Policlinico Umberto I –
Roma 0039-06 49978000
CAV Ospedale Cardarelli –
Napoli 0039-081 5453333
CAV Azienda Ospedaliera Integrata Verona - 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:

Serious eye damage, category 1

H318

Causes serious eye damage.

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:

H318

Causes serious eye damage.

Precautionary statements:

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P280

Wear eye protection / face protection.

P310

Immediately call a POISON CENTER / doctor / . . .

Contains:

Ammonium carbamate

Alcohols, C11-13-branched, ethoxylated (>2.5 moles EO)

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)
ALUMINA		
CAS 1344-28-1	9 ≤ x < 30	
EC 215-691-6		
INDEX -		
REACH Reg. 01-2119529248-35-0024		
AMMONIUM BICARBONATE		
CAS 1066-33-7	3 ≤ x < 9	Acute Tox. 4 H302
EC 213-911-5		LD50 Oral: 1576
INDEX -		
REACH Reg. 01-2119486970-26		
Ammonium carbamate		
CAS 1111-78-0	3 ≤ x < 9	Acute Tox. 4 H302, Eye Dam. 1 H318
EC 214-185-2		LD50 Oral: >1000
INDEX -		
REACH Reg. 01-2119493982-22		
AMORPHOUS SILICATE HYDRATE		
CAS 7631-86-9	3 ≤ x < 9	
EC 231-545-4		
INDEX -		
Alcohols, C11-13-branched, ethoxylated (>2.5 moles EO)		
CAS 68439-54-3	1 ≤ x < 3	Acute Tox. 4 H302, Eye Dam. 1 H318
EC		LD50 Oral: >300 mg/kg
INDEX -		
Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate		
CAS 51981-21-6	1 ≤ x < 3	
EC 257-573-7		
INDEX -		
REACH Reg. 01-2119493601-38		

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 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

Choose the most appropriate extinguishing equipment for the specific case.

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

The product is neither flammable nor combustible.

5.3. Advice for firefighters

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.

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.

Storage class TRGS 510 (Germany):

12

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection**8.1. Control parameters**

Regulatory References:

DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
	TLV-ACGIH	ACGIH 2021

ALUMINA**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	DEU	4				INHAL
MAK	DEU	1,5				RESP
VLA	ESP	10				
VLEP	FRA	10				
WEL	GBR	10				INHAL
WEL	GBR	4				RESP
TLV-ACGIH		1				RESP AI

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								3 mg/m3 8h

AMMONIUM BICARBONATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,37	mg/l
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Oral		1,5 mg/kg/d			
Inhalation		1,8 mg/m ³	55 mg/m ³	55 mg/m ³	7,3 mg/m ³
Skin	VND	7500 mg/kg/d		VND	15000 mg/kg/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.

AMMONIUM BICARBONATE

Components with limit values to be complied with at the workplace.

124-38-9: carbon dioxide

Value TWA 9.000 mg/m³; 5.000 ppm (OUL (EU)) indicative

Value TWA 9.000 mg/m³; 5.000 ppm (OEL (IT))

7664-41-7: anhydrous ammonia

Value TWA 14 mg/m³; 20 ppm (OEL (EU)) indicative

Value STEL 36 mg/m³; 50 ppm (OEL (EU)) indicative

Value TWA 14 mg/m³; 20 ppm (OEL (IT))

Value STEL 36 mg/m³; 50 ppm (OEL (IT))

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 I 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 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

Properties	Value	Information
Appearance	pasty liquid	
Colour	beige	
Odour	ammoniacal	
Melting point / freezing point	Not available	
Initial boiling point	Not available	
Flammability	incombustible	
Lower explosive limit	Not available	
Upper explosive limit	Not available	
Flash point	> 90 °C	
Auto-ignition temperature	Not available	
pH	9	
Kinematic viscosity	Not available	
Solubility	partially soluble in water	
Partition coefficient: n-octanol/water	Not available	
Vapour pressure	Not available	
Density and/or relative density	1,06 kg/l	
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 (Guideline 2010/75/CE) : 0 gr/l

Explosive properties non-explosive

Oxidising properties non-oxidizing

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

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

AMMONIUM BICARBONATE

May develop: ammonia.

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 1272/2008Metabolism, 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:	>2000 mg/kg
ATE (Dermal) of the mixture:	Not classified (no significant component)

ALUMINA

LD50 (Oral):	> 5000 mg/kg Rat
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AMMONIUM BICARBONATE

LD50 (Oral):	1576 mg/kg Rat
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Ammonium carbamate

LD50 (Oral):	> 1000 mg/kg rat
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AMORPHOUS SILICATE HYDRATE

LD50 (Dermal):	> 2000 mg/kg Rat
LD50 (Oral):	> 2000 mg/kg Rat
LC50 (Inhalation mists/powders):	> 2,2 mg/l/1h Rat

Aliphatic alcohol ethoxylate 7 moles

LD50 (Dermal):	> 2000 mg/kg lapin
LD50 (Oral):	> 300 mg/kg rat

Tetrasodium

N,N-bis(carboxylatomethyl)-L-glutamate

LD50 (Dermal):	> 2000 mg/kg OECD 402
LD50 (Oral):	> 2000 mg/kg rat
LC50 (Inhalation mists/powders):	> 4,2 mg/l/4h OECD 403

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

AMMONIUM BICARBONATE

Assessment of the irritating effect: not irritating to the skin. The product has not been fully tested. The claims were derived in part from products of similar structure or composition.

Ammonium carbamate
Not irritating to the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

AMMONIUM BICARBONATE

Assessment of the irritating effect: not irritating to the eyes. The product has not been fully tested. The claims were derived in part from products of similar structure or composition.

Ammonium carbamate

Risk of serious damage to eyes

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

AMMONIUM BICARBONATE

Assessment of the sensitizing effect: the chemical composition does not suggest a sensitizing effect.

Respiratory sensitization

Ammonium carbamate

The chemical composition does not suggest a sensitizing effect

Skin sensitization

Ammonium carbamate

The chemical composition does not suggest a sensitizing effect

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

AMMONIUM BICARBONATE

The substance was not mutagenic on bacteria. The substance was not mutagenic to a mammalian cell culture.

Ammonium carbamate

Mutagenicity tests did not reveal a genotoxic potential. The product has not been fully tested and claims have been derived in part from products of similar structure or composition.

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

AMMONIUM BICARBONATE

All available information does not provide any indication of a possible carcinogenic effect. The product has not been tested. The indications were derived from substances / products of similar composition or structure.

Ammonium carbamate

It did not show carcinogenic effects in experimental animals. The product has not been tested. The claims were derived in part from products of similar structure or composition.

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

AMMONIUM BICARBONATE

Scientifically not justified study

Ammonium carbamate

Scientifically not justified study

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

Information not available

Route of exposure

Information not available

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

Aliphatic alcohol ethoxylate 7 moles

LC50 - for Fish

5 mg/l/96h

EC50 - for Crustacea

5 mg/l/48h

EC50 - for Algae / Aquatic Plants

5 mg/l/72h

Chronic NOEC for Algae / Aquatic Plants

10 mg/kg Metodo OECD 208

Ammonium carbamate	
LC50 - for Fish	37 mg/l/96h Pimephales promelas
EC50 - for Crustacea	63 mg/l/48h - Daphnia magna
EC50 - for Algae / Aquatic Plants	129,1 mg/l/72h Desmodesmus subspicatus (Scenedesmus subspicatus)

Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate	
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 demsodemus supspicatus, OECD 201
Chronic NOEC for Algae / Aquatic Plants	> 100 mg/l OECD 201

12.2. Persistence and degradability

AMMONIUM BICARBONATE	
Solubility in water	220000 mg/l
Degradability: information not available	

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

ALUMINA	
Solubility in water	< 2E-05 mg/l
Degradability: information not available	

Aliphatic alcohol ethoxylate 7 moles
Rapidly degradable

Ammonium carbamate
Degradability: information not available

Tetrasodium
N,N-bis(carboxylatomethyl)-L-glutamate
Rapidly degradable

12.3. Bioaccumulative potential

AMMONIUM BICARBONATE	
Partition coefficient: n-octanol/water	-2,4

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

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

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

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.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 1: Low hazard to waters

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

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

Acute Tox. 4	Acute toxicity, category 4
Eye Dam. 1	Serious eye damage, category 1
H302	Harmful if swallowed.
H318	Causes serious eye damage.

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
 - 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:

01 / 02 / 03 / 08 / 09 / 11 / 12 / 15 / 16.