



AQUASALZ

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

Product name	Aquasalz
Substance name	Disodium carbonate, compound with hydrogen peroxide (2:3)
EC number	239-707-6
CAS number	15630-89-4
Registration Number	01-2119457268-30-xxxx
Formula	2Na ₂ CO ₃ ·3H ₂ O ₂
Coated and stabilized product	

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

Intended use	Aquarium and Pond use
Uses advised against	For cleaning and removing dirty on the bottom of the aquarium. Uses other than those stated.

1.3. Details of the supplier of the safety information sheet

Name	PRO.D.AC. International S.r.l.
Full address	Via Padre Nicolini, 22
District and Country	35013 Cittadella (Padova) ITALIA ITALY
	Tel: +39 049/5971677
	Fax: +39 049/5971113

e-mail address of the competent person

responsible for the Safety Information Sheet info@prodac.it

1.4. Emergency telephone number

For urgent inquiries refer to
info@prodac.it or +39 049 5971677
<https://echa.europa.eu/it/support/helpdesks>

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:

Oxidising solid, category 2	H272	May intensify fire; oxidiser.
Acute toxicity, category 4	H302	Harmful if swallowed.
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



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Hazard statements:

H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H318 Causes serious eye damage.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220 Keep away from clothing and other combustible materials.
P280 Wear eye protection / face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370+P378 In case of fire: use water to extinguish.
P501 Dispose of contents/container in accordance with all local/national/international regulation.

Contains: **DISODIUM CARBONATE, COMPOUND WITH HYDROGEN PEROXIDE (2:3)**
Nr. EC: **239-707-6**

Ingredients according to Regulation (EC) No. 648/2004

30% and more Oxygen-based bleaching agents

2.3. Other hazards

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

SECTION 3. Composition/information on ingredients

3.1. Substances

Contains:

Identification	Conc. %	Classification 1272/2008 (CLP)
DISODIUM CARBONATE, COMPOUND WITH HYDROGEN PEROXIDE (2:3)		
CAS 15630-89-4	≥ 80 - < 90	Ox. Sol. 2 H272, Acute Tox. 4 H302, Eye Dam. 1 H318
EC 239-707-6		
INDEX -		
Reg. no. 01-2119457268-30-xxxx		

Specific concentration limits

Concentration range (%): > 25 Eye Damage 1 H318

Concentration range (%): >= 7.5 - < 25 Eye Irrit. 2 H319

IMPURITY

SODIUM CARBONATE		
CAS 497-19-8	≥ 5 - < 10	Eye Irrit. 2 H319
EC 207-838-8		

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.

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INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.
PROTECTIVE MEASURES FOR THE FIRST RESCUE WORKERS: for PPE (personal protection equipment) required for first aid refer to section 8.2 of this safety data sheet.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation: may cause irritation of the nose, throat and lungs.

Skin: prolonged contact with the skin can cause irritation.

Eye: Redness, watering, swelling of the tissue. Corrosive. It can cause irreversible eye damage.

If swallowed: severe irritation, nausea, abdominal pain, vomiting and diarrhea.

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

Treat symptomatically.

In case of accident or if you feel unwell, seek medical advice immediately (show directions for use or safety data sheet if possible).

SECTION 5. Firefighting measures**5.1. Extinguishing media**

SUITABLE EXTINGUISHING EQUIPMENT

water 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

Oxidizing, the oxygen released during thermal decomposition can promote combustion. May cause ignition of combustible materials. Contact with flammable products can cause fire or explosions. Explosion risk due to heating in a confined space.

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****6.1.1 For non-emergency personnel**

Evacuate surrounding areas. Do not breathe /mist/vapour. Avoid leakage of the product into the environment.

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.

Non-emergency personnel must follow the appropriate internal procedures in case of accidental release.

6.1.2 For emergency responders

Evacuate unprotected and untrained personnel from hazard area. Wear suitable protective equipment. (see Section 8 of this Safety data sheet)

Follow the appropriate internal procedures in case of accidental release.

Keep fumes and vapours under control. Isolate hazard area and deny entry. Ventilate closed spaces before entering. Send away individuals who are not suitably equipped.

6.2. Environmental precautions



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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 and place it in containers for recovery or disposal. If there are no contraindications, use jets of water to eliminate product residues.

Make sure the leakage site is well aired. Evaluate the compatibility of the container to be used, by checking section 10. 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

Ensure an adequate grounding system for plants and people. Avoid contact with eyes and skin. Do not eat, drink or smoke during use. Wash hands after use. Avoid dispersal of the product in the environment.

Avoid the formation of dust. Provide adequate ventilation. Keep away from heat and other causes of fire.

Use only clean and dry utensils. Never return unused material to the original packaging. Keep away from water.

Keep away from incompatible products.

7.2. Conditions for safe storage, including any incompatibilities

Keep only in the original container. Store in a ventilated place, away from sources of ignition. Keep containers tightly closed. Keep the product in clearly labeled containers. Avoid overheating. Avoid violent shocks. Keep containers away from any incompatible materials, checking section 10. Keep at a temperature not exceeding 40 °.

Keep in a dry place. Keep away from heat / sparks / open flames / heated surfaces. Not smoking. Keep away from incompatible products.

Packaging material

Suitable materials

Stainless steel

Plastics

Paper plus polyethylene coating

7.3. Specific end use(s)

No use other than as indicated in section 1.2 of this safety data sheet

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

TLV-ACGIH

ACGIH 2019

DISODIUM CARBONATE, COMPOUND WITH HYDROGEN PEROXIDE (2:3)

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH		1		Hydrogen peroxide		
Predicted no-effect concentration - PNEC						
Normal value in fresh water				0,035	mg/l	
Normal value in marine water				0,035	mg/l	



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Normal value of STP microorganisms

16,24

mg/l

Health - Derived no-effect level - DNEL / DMELEffects on
consumersEffects on
workers

Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation							5 mg/m3	VND
Skin	6,4 mg/cm2	VND	6,4 mg/cm2	VND	12,8 mg/cm2	VND	12,8 mg/cm2	VND

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.

During the risk assessment process, it is essential to take into consideration the ACGIH occupational exposure levels for inert particulate not otherwise classified (PNOC respirable fraction: 3 mg/m3; PNOC inhalable fraction: 10 mg/m3). For values above these limits, use a P type filter, whose class (1, 2 or 3) must be chosen according to the outcome of risk assessment.

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 PPE 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).

Main recommended materials: PVC, neoprene, natural rubber.

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

Use a type P filtering facemask, whose class (1, 2 or 3) and effective need, must be defined according to the outcome of risk assessment (see standard EN 149).

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	Granules
Colour	White
Odour	Odourless
Odour threshold	Not available
pH	10,4-10,6 (10 g/l)



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Melting point / freezing point	It decomposes on heat.
Initial boiling point /Boiling range	It decomposes before melting
Flash point	Not applicable on the basis of the physical state
Evaporation Rate	Not applicable on the basis of the physical state
Flammability of solids and gases	Not inflammable. The substance is not classified according to the CLP criteria as a flammable solid.
Lower inflammability /explosive limit	Not available
Upper inflammability /explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	2.01-2.16
Solubility	140 g/l (20°C)
Partition coefficient: n-octanol/water	Not applicable for inorganic substances
Auto-ignition temperature	Not available
Decomposition temperature	Self-accelerated decomposition temperature (TDAA / SADT) > 55 °C - 50 kg > 110 °C
Viscosity	Not available
Explosive properties	Non-explosive. There are no chemical groups associated with explosive properties present in the mixture
Oxidising properties	Non-oxidising. There are no chemical groups associated with oxidizing properties present in the molecule

9.2. Other information

Apparent density	850-1200 kg/m ³
Particle size:	250 - 1.000 µm

SECTION 10. Stability and reactivity

10.1. Reactivity

The substance is oxidizing, facilitates the combustion of other substances.
It decomposes on contact with moisture. It decomposes on heat.
Potential danger for exothermic reactions.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

May cause ignition of combustible materials. Contact with flammable products can cause fire or explosions
Explosion risk due to heating in a confined space.
Flame or intense heat can cause the abrupt breakage of the packaging.

10.4. Conditions to avoid

Avoid environmental dust build-up.
Exposure to moisture.
To avoid thermal decomposition, do not overheat.

**AQUASALZ****10.5. Incompatible materials**

Water, acids, bases, salts of heavy metals, reducing agents, organic materials, flammable materials, combustible material.

10.6. Hazardous decomposition products

Oxygen.

SECTION 11. Toxicological information**11.1. Information on toxicological effects**ACUTE TOXICITY

Reliability (Klimisch score): 1

Species: Ratto Crl: CD@BR (female/male)

Exposure: oral

Results: LD50 = 1034 mg/kg

Bibliographical references: Health Effects Test Guidelines, U.S. Environmental Protection Agency Office of Pesticides and Toxic Substances (1984)

"Acute Exposure Oral Toxicity

Acute inhalation toxicity: no data available

Reliability (Klimisch score): 1

Species: white rabbit del New Zealand (female/male)

Exposure: dermal

Results: LD50 = > 2 000 mg/kg

Bibliographical references: EPA Guideline

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

Reliability (Klimisch score): 1

Species: Rabbit (Nwe Zealand White)

Results: Not irritating

Bibliographical references: Health Effects Test Guidelines of the US Environmental Protection Agency Office of Pesticides and Toxic Substances, pp. 41-48 (August 1982)

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

Method: EPA OPP 81-4 (Acute Eye Irritation)

Reliability (Klimisch score): 1

Species: Rabbit (New Zealand White)

Results: strongly irritating to the eyes

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

Respiratory sensitization

No data available.

Skin sensitization

Reliability (Klimisch score): 1

Species: Guinea Pig (Hra:(DH)SPF, male/female)

Results: non-sensitizing

Bibliographical references: Health Effects Test Guideline of the US Environmental Protection Agency Office of Pesticides and Toxic Substances, pp. 33-39 (August 1982)

**AQUASALZ****GERM CELL MUTAGENICITY**

Does not meet the classification criteria for this hazard class

Method: OECD SIDS (OECD 2002)

Results: No genotoxic potential observed in the literature, both in vivo and in vitro studies.

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Animal carcinogenicity studies are not available.

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

The substance is not believed to have any effect on fertility and the fetus.

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

Based on the evidence of available data, determined by the judgement of experts, the substance is not classified for the hazard class CLP of STOT-SE

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Based on the evidence of available data, determined by the judgement of experts, the substance is not classified for the hazard class CLP of STOT-RE

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

No data available.

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

DISODIUM CARBONATE, COMPOUND WITH HYDROGEN PEROXIDE (2:3)

LC50 - for Fish 70,7 mg/l/96h Pimephales Promelas (EPA Federal Register Part II, 40 CFR Part 796, 797, 798).

EC50 - for Crustacea 4,9 mg/l/48h Daphnia pulex (US EPA TSCA Test Guidelines, 40 CFR Parts 796, 797, 798 (1985, 1987 (revision)))

12.2. Persistence and degradability**Stability in water**

In contact with water, the product rapidly separates into the corresponding ions., Hydrogen peroxide.

The product can be eliminated by abiotic process, e.g. chemical or photolytic. (expert judgment)

Photodegradation

t_{1/2} Half-life (direct photolysis): <1 day

Medium: Water

The methods for determining biodegradability do not apply to inorganic substances.

12.3. Bioaccumulative potential

Partition coefficient: n-octanol/water: not applicable (inorganic substance)

Bioconcentration factor (BCF) : Not applicable



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12.4. Mobility in soil

For solid sodium percarbonate, no air transport is expected due to the negligible vapor pressure. When sodium percarbonate is dissolved in water, it dissociates rather easily into sodium carbonate and hydrogen peroxide. The high solubility in water and the low vapor pressure indicate that sodium carbonate will be found mainly in the aquatic environment (OECD, 2003). The volatilization of hydrogen peroxide from surface water and moist soil should be very low, while it is expected to be highly mobile in soil (European Commission, 2003b).

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues shall be considered special hazardous waste. The hazards of the wastes containing this product shall be evaluated according to applicable regulations. (Directive 2008/98/EC as modified by subsequent amendments and transpositions into national law).

Disposal must be performed by an authorised waste management enterprise in compliance with national and local regulations.

The legal responsible for disposal is the producer / holder of the waste.

Different EWC codes could be applied to this mixture according to the European Waste Catalogue based on the specific circumstances that generated the waste, possible alterations and / or possible contamination.

The product as such, contained in the original packaging, or poured into in an appropriate recipient for disposal, or contained in a damaged packaging after an accidental leakage, shall be classified with a EWC code that is matching the description of the use shown at section 1.2.

The suitable final destination of the waste shall be evaluated by the producer on the basis of the chemical-physical characteristics of the waste, the compatibility with the authorized facility to which it will be provided for recovery, and the definitive treatment or disposal according to the procedures established by regulations in force.

Disposal through wastewater discharge is not permitted.

CONTAMINATED PACKAGING

Contaminated packaging, properly labelled, shall be sent to recovery or disposal in compliance with national waste management regulations and they shall be classified with the following EWC code: **15 01 10***: packaging containing residues of or contaminated by hazardous substances

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 3378

14.2. UN proper shipping name

ADR / RID: SODIUM CARBONATE PEROXYHYDRATE

IMDG: SODIUM CARBONATE PEROXYHYDRATE

IATA: SODIUM CARBONATE PEROXYHYDRATE

14.3. Transport hazard class(es)

ADR / RID: Class: 5.1 Label: 5.1

IMDG: Class: 5.1 Label: 5.1





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IATA: Class: 5.1 Label: 5.1



14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: NO

IMDG: NO

IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 50	Limited Quantities: 5 kg	Tunnel restriction code: (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-Q	Limited Quantities: 5 kg	
IATA:	Cargo:	Maximum quantity: 100 Kg	Packaging instructions: 563
	Pass.:	Maximum quantity: 25 Kg	Packaging instructions: 559
	Special Instructions:	-	

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:

P8

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

None

Substances in Candidate List (Art. 59 REACH)

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

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the



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workers' health and safety are modest and that the 98/24/EC directive is respected.

Regulation (EC) No. 648/2004

Ingredients according to Regulation (EC) No. 648/2004

The product does not contain surfactants.

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the substance.

SECTION 16. Other information

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

Ox. Sol. 2	Oxidising solid, category 2
Acute Tox. 4	Acute toxicity, category 4
Eye Dam. 1	Serious eye damage, category 1
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H318	Causes serious eye damage.

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
- 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

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- 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
- 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- 10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
- 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
- 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
- 13. Regulation (EU) 2017/776 (X Atp. CLP)
- 14. Regulation (EU) 2018/669 (XI Atp. CLP)
- 15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
- 16. Regulation (EU) 2019/521 (XII Atp. CLP)
- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for the recipient of the Safety Data Sheet (SDS):

The recipient of this SDS shall make sure of reading and understanding the information included by all people who handle, store, use, or otherwise come into contact in any way with the substance or mixture to which this SDS is referred to. In particular, the recipient shall provide adequate training to the personnel for the use of hazardous substances and/or mixtures. The recipient shall verify the suitability and completeness of the provided information according to the specific use of the substance or mixture. However, the substance or mixture referred to by this SDS shall not be used for uses other than those specified in Section 1. The Supplier don't assume responsibility for improper uses. Since the use of the product does not fall under the direct control of the Supplier, the user shall, under his own responsibility, fulfill national and EU regulations concerning health and safety.

The information included in this SDS are provided in good faith and are based on the current state of scientific and technical knowledge, at the revision date indicated, available to the Supplier indicated in Section 1 of this SDS. It shall not be meant that the SDS is a guarantee of any specific property of the substance or mixture. The information concern only to the substance or mixture specifically designated in Section 1 and it could not be valid for the substance or mixture used in combination with other materials or in any process not specified in the text.

This version of the SDS substitutes all the previous versions.

Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 04 / 05 / 06 / 07 / 08 / 09 / 10 / 11 / 12 / 13 / 14 / 15 / 16.