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Safety Data Sheet

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

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

1.1 Product identifier

- Code: 010610001PP
- Name: ACQUE GRIGIE
- UFI: ME00-G01E-N00S-Y94R

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

Description/Intended use: OXIDIZING AGENT IDEAL FOR TREATMENT OF TANKS AND WATER SYSTEMS IN CAMPER RVS AND BOATS, AND OF WATER IN SWIMMING POOLS AND WHIRLPOOLS. PRODUCTS ACTIVE OXYGEN.

Identified Uses	Industrial	Professional	Consumer
Products for water treatment – reactive Product for water treatment - reactive	–	 ERC: 8b, 8e. PROC: 19, 8a, 8b, 9. PC: 20, 37. LCS: PW.	ERC: 8b, 8e. PC: 20, 37. LCS: C.

Uses advised against: Any not specified above.

1.3 Details of the supplier of the safety data sheet

Company Name: ACQUATRAVEL
Address: VIA DEL SALE 85/A
Location and State: 48125 SAN PIETRO IN CAMPIANO RAVENNA

Email of the competent person responsible for the safety data sheet: info@acquatravel.it VIVIANI FABIO 3470552803 Supplier: Barchemicals

1.4 Emergency telephone number

For urgent information contact:
Poison Control Center of Pavia 0382 24444 (CAV IRCCS Fondazione Maugeri - Pavia)
Poison Control Center of Milan 02 66101029 (CAV Ospedale Niguarda Ca' Granda - Milan)
Poison Control Center of Bergamo 800 883300 (CAV Ospedali Riuniti - Bergamo)
Poison Control Center of Florence 055 7947819 (CAV Ospedale Careggi - Florence)
Poison Control Center of Rome 06 3054343 (CAV Policlinico Gemelli - Rome)
Poison Control Center of Rome 06 49978000 (CAV Policlinico Umberto I - Rome)
Poison Control Center of Rome 06 68593726 (CAV Ospedale Pediatrico Bambino Gesù)
Poison Control Center of Naples 081 5453333 (CAV Ospedale Cardarelli - Naples)
Poison Control Center of Foggia 0881 800184359 (Az. Osp. Univ. Foggia)
Poison Control Center of Verona 800011858 (Azienda Ospedaliera Integrata Verona)
For Italy only

SECTION 2. Hazard Identification

2.1. Classification of the substance or mixture

The product is classified as hazardous in accordance with the provisions of Regulation (EC) 1272/2008 (CLP) (and subsequent amendments and adjustments). The product therefore requires a safety data sheet compliant with the provisions of Regulation (EU) 2020/878.
Any additional health and/or environmental risk information is reported in sections 11 and 12 of these sheets.

Classification and hazard indications:		
Acute toxicity, category 4	H302	Harmful if swallowed.
Skin corrosion, category 1B	H314	Causes severe skin burns and serious eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity cat 3	H412	Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard labeling according to Regulation (EC) 1272/2008 (CLP) and subsequent amendments and adjustments.

Hazard pictograms:

Warning: Danger

Hazard statements:	
H302	Harmful if swallowed.
H314	Causes severe skin burns and serious eye damage.
H412	Harmful to aquatic life with long lasting effects.
EUH208	Contains: DIPOTASSIUM PERSULFATE May cause allergic reaction.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P260 Do not breathe dust/fume/gas/mist/vapors/aerosol.

P264 Wash hands thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331 IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove people to fresh air and keep comfortable breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P405 Store locked up.
P501 Dispose of contents/container in accordance with regulations.

Contains:

- BIS(PEROXIMONO)SULFATE/BIS(SULFATE) OF PENTAPOTASSIUM
- POTASSIUM HYDROGENSULFATE
- DIPOTASSIUM PERSULFATE

2.3. Other hazards

Based on available data, the product does not contain PBT or vPvB substances above 0.1%.
The product does not contain substances with endocrine disrupting properties in concentrations above 0.1%.

SECTION 3. Composition / Information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)

PENTAPOTASSIUM BIS(PEROXYMONOSULPHATE) BIS(SULPHATE)
CAS 70693-62-8 — 80 ≤ x < 100 — Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Chronic 3 H412
EC 274-778-7 — Oral LD50: 500 mg/l/4h
INDEX
REACH Reg. 01-2119485567-22-XXXX

POTASSIUM HYDROGENSULPHATE
CAS 7646-93-7 — 1 ≤ x < 10 — Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335
EC 231-594-1
INDEX 016-056-00-4

DIPOTASSIUM PEROXODISULPHATE
CAS 7727-21-1 — 1 x < 10 — Ox. Sol. 3 H272, Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Resp. Sens. 1 H334, Skin Sens. 1 H317
EC 231-781-8
INDEX 016-061-00-1
REACH Reg. 01-21194945676-19-XXXX

The complete text of the H hazard statements is reported in section 16 of the sheet.

SECTION 4. First Aid Measures

4.1. Description of first aid measures

Eyes:	Remove any contact lenses. Rinse immediately and thoroughly with water for at least 15 minutes, keeping eyelids well apart. Consult a doctor if the problem persists.
Skin:	Remove contaminated clothing. Rinse immediately and thoroughly with water. If irritation persists, consult a doctor. Wash contaminated clothing before reusing.
Inhalation:	Move the subject to fresh air. If breathing is difficult, call a doctor immediately.
Ingestion:	Immediately consult a doctor. Induce vomiting only if indicated by doctor. Do not give anything orally to an unconscious patient unless authorized by a doctor.

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

Contact with skin may cause redness/irritation. Contact with eyes causes redness, pain, severe deep burns, and loss of vision. If accidentally ingested, it may cause abdominal pain and vomiting.

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

Information is not available.

SECTION 5. Firefighting Measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray, foam.

Unsuitable extinguishing media:

Carbon dioxide, water jets.

5.2. Special hazards arising from the substance or mixture

Hazards due to exposure in case of fire:

Overpressure may occur in containers exposed to fire, risking explosion. Avoid inhaling combustion products. See also section 10.

5.3. Advice for firefighters

General information:
Cool containers with water jets to prevent product decomposition and the formation of potentially hazardous substances. Always wear full firefighting protective equipment. Collect extinguishing water, which must not be discharged into drains. Dispose of contaminated extinguishing water and fire residue according to current regulations.

Equipment:
Standard firefighting clothing, such as self-contained open circuit compressed air breathing apparatus (EN 137), flame-resistant suit (EN 469), flame-resistant gloves (EN 659), and firefighter boots HO A29 or A30.

SECTION 6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear adequate protective equipment including the personal protective devices specified in section 8 of this safety data sheet to prevent contamination of skin, eyes, and personal clothing. In case of dust dispersing in the air, use respiratory protection.

Ensure adequate ventilation. Prevent unprotected or unauthorized personnel from entering. Do not walk on spilled material.

6.2. Environmental precautions

Avoid formation of dust and dispersion of the product into the air.

6.3. Methods and materials for containment and cleaning up

Collect the released product and place it in containers for recovery or disposal. Ensure adequate ventilation of the area affected by the spill. It may be advisable to wash surfaces that have come into contact with traces of dust with water, while avoiding washings from entering drains.

6.4. Reference to other sections

Notify competent authorities if the product has reached watercourses or has contaminated soil or vegetation.

SECTION 7. Handling and Storage

7.1. Precautions for safe handling

Handle the product after consulting all other sections of this safety data sheet. Avoid product dispersion into the environment. Do not eat, drink, or smoke during use. Remove contaminated clothing and personal protective equipment before entering areas where food is consumed**.**
Ensure containers are free of incompatible material residues before transfer operations.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Keep containers closed, in a well-ventilated place, and away from direct sunlight. Store containers away from any incompatible materials, consulting section 10.
Store in a cool, dry place. Avoid direct exposure to sunlight. Keep away from open flames, sparks, and other sources of ignition.

Ensure sufficient ventilation.

7.3. Specific end use(s)

Information is not available.

SECTION 8. Exposure Controls/Personal Protection

8.1. Control parameters

BIS(PEROXYMONOSULFATE)BIS(SULPHATE) OF PENTAPOTASSIUM

Predicted No Effect Concentration (PNEC) for the environment

Freshwater reference value: 0.022 mg/l
Seawater reference value: 0.0022 mg/l
Reference value for sediments in freshwater: 0.0782 mg/kg
Reference value for sediments in seawater: 0.008 mg/kg
Reference value for water, intermittent release: 0.0109 mg/l
Reference value for STP microorganisms: 108 mg/l

Health – Derived No Effect Level - DNEL / DMEL

Exposure route	Effects on consumers	Effects on workers						
	Local acute	Systemic acute	Local chronic	Systemic chronic	Local acute	Systemic acute	Local chronic	Systemic chronic
Oral			10 mg/kg bw/d	0 mg/kg bw/d	—	—	—	—
Inhalation	25 mg/m³	25 mg/m³	0.14 mg/m³	0,14 mg/m³	50 mg/m³	50 mg/m³	0.28 mg/m³	0.28 mg/m³
Dermal	0.224 mg/cm²	40 mg/kg bw/d		10 mg/kg bw/d	0.449 mg/cm²	80 mg/kg bw/d		20 mg/kg bw/d

VND = identified hazard but no DNEL/PNEC available

NAE = no exposure expected

NPI = no identified hazard

8.2. Exposure controls

Observe usual chemical handling safety measures. Provide an emergency shower with an eye wash basin. Ensure good general ventilation, with 3 to 5 air changes per hour—dilution efficiency 30.

Hand protection: If prolonged contact with the product is foreseen, it is recommended to protect hands with penetration-resistant work gloves (ref. standard EN 374). The final selection of glove material must also consider the process and any additional chemicals formed. Latex gloves may cause sensitization.

Skin protection: Protective clothing for chemical agents.

Eye protection: Hermetically sealed protective goggles (ref. standard EN 166). If there is a risk of being exposed to splashes, provide mucous membrane protection (mouth, nose, eyes) to avoid accidental absorption.

Respiratory protection: If the substance's exposure value (e.g., TLV-TWA) is exceeded, wear a mask with filter type B combined with P filter (ref. standard EN 14387). Use of respiratory protection is necessary if technical measures are insufficient to limit exposure to relevant thresholds. The protection provided by masks is nevertheless limited.

Environmental exposure controls: Emissions from manufacturing processes, including ventilation equipment, should be checked for compatibility with environmental protection regulations. Product residues must not be discharged without control into sewers or water courses.

SECTION 9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Property	Value	Information
Physical state	solid	
Colour	white	
Odour	odourless	
Odour threshold	Not applicable	Reason for missing data: odourless product
Melting or freezing point	Not determined	
Initial boiling point	Not determined	
Boiling range	Not determined	

Flammability	Not determined	
Lower explosive limit	Not determined	
Upper explosive limit	Not determined	
Ignition temperature	Not determined	
Auto-ignition temperature	Not applicable	Reason for missing data: non-self-flammable
Decomposition temperature	> 70 °C	
pH	2–3	Method: ISO 4316; Concentration: 1%; Temperature: 20 °C
Kinematic viscosity	Not applicable	Reason for missing data: solid
Solubility	soluble in water	Method: Regulation (EC) No. 440/2008, Annex A.6; Note: 297–357 g/l; Temperature: 25 °C
n-octanol/water partition coefficient	Not determined	
Vapour pressure	Not determined	
Vapour density	Not determined	
Particle characteristics	Not specified	

9.2. Other information

No further information is available.

9.2.1 information related to physical hazard classe

information related to physical hazard classe

9.2.2. other safety characteristics

explosive properties - not available

oxidizing propertie - oxidizer

SECTION 10. Stability and Reactivity

10.1. Reactivity

The product is stable under recommended storage and handling conditions.

10.2. Chemical stability

The product is stable under normal conditions of use and storage.
Pentapotassium bis(peroxymonosulfate) bis(sulfate) – Maintain at temperatures below 50 °C.

10.3. Possibility of hazardous reactions

There are no hazardous reactions under the recommended conditions of use. The powder can form an explosive mixture with air.
Pentapotassium bis(peroxymonosulfate) bis(sulfate) – The powder forms explosive mixtures with air.

10.4. Conditions to avoid

Avoid exposure to high temperatures, direct sunlight, and humidity. Keep away from sources of ignition.
Pentapotassium bis(peroxymonosulfate) bis(sulfate) avoid exposure to high temperatures

10.5. Incompatible materials

Halogenated components / cyanides / metallic salts.
Pentapotassium bis(peroxymonosulfate) bis(sulfate).
Avoid contact with: cyanides, halogenated compounds, mineral salts.

10.6. Hazardous decomposition products

Sulfur oxides / oxygen.
Pentapotassium bis(peroxymonosulfate) bis(sulfate) upon heating to decomposition emits: oxygen, sulfur oxides.

SECTION 11. Toxicological Information

11.1 Information on hazard classes as defined in Regulation (EC) No. 1272/2008

Metabolism, kinetics, mechanism of action, and other information: Not available

Information on probable routes of exposure: Not available Immediate, delayed, and chronic effects from short- and long-term exposure: Not available

Interactive effects: Not available

Acute Toxicity

ATE (Inhalation) of the mixture: Not classified (no relevant components)

ATE (Oral) of the mixture: 466.67 mg/kg

ATE (Dermal) of the mixture: Not classified (no relevant components)

Potassium bis(peroxymonosulphate) bis(sulphate)

LD50 (Dermal): > 5000 mg/kg OECD 402

LD50 (Oral): 500 mg/kg OECD 423

LC50 (Inhalation, mist/dust): > 5 mg/l/4h OECD 403

Potassium bisulphate

LD50 (Oral): 2340 mg/kg

Potassium peroxodisulphate

LD50 (Dermal): > 10000 mg/kg

LD50 (Oral): 700 mg/kg

LC50 (Inhalation, mist/dust): > 2.95 mg/l/4h

Skin corrosion/irritation:

Corrosive to skin

Potassium bis(peroxymonosulphate) bis(sulphate) causes burns (rabbit, OECD 404).
Potassium bisulphate causes burns.

Serious eye damage/irritation:
Causes serious eye damage
Potassium bis(peroxymonosulphate) bis(sulphate) poses risk of serious eye damage (rabbit, OECD 405).

Respiratory or skin sensitisation:
May cause an allergic reaction. Contains potassium peroxodisulphate.
Potassium bis(peroxymonosulphate) bis(sulphate) is not sensitising (guinea pig, OECD 406).

Respiratory sensitisation: Based on available data, classification criteria are not met (mammal species unidentified, negative result). Potassium peroxodisulphate causes respiratory sensitisation**.**
Skin sensitisation: Based on available data, classification criteria are not met (guinea pig, negative).
Potassium peroxodisulphate causes skin sensitisation.

Germ cell mutagenicity:

Does not meet classification criteria

Potassium bis(peroxymonosulphate) bis(sulphate)

Genotoxicity in vitro (mammalian): positive with and without metabolic activation (OECD 476).
Genotoxicity in vitro (bacteria): negative with and without metabolic activation (OECD 471).
Genotoxicity in vitro (human mammalian): positive with and without metabolic activation (OECD 473).
Genotoxicity in vivo (mammal): negative (OECD 474).

Potassium bisulphate no evidence of mutagenic effects.

Potassium peroxodisulphate no known to have mutagenic effects.

Carcinogenicity:

Does not meet classification criteria

Reproductive toxicity:
Does not meet classification criteria
No observed teratogenic effects found for Potassium bis(peroxymonosulphate) bis(sulphate).
Adverse effects on sexual function and fertility: Not available
Adverse effects on development of offspring: Not available
Effects via lactation or through lactation: Not available

Specific target organ toxicity (single exposure):
Does not meet classification criteria
Potassium bisulphate may irritate respiratory tract.
Potassium peroxodisulphate may irritate respiratory tract.
Specific target organ toxicity (repeated exposure):
Does not meet classification criteria

Aspiration hazard

Does not meet the classification criteria for this hazard class

11.2 Other information on hazards
Based on available data, the product does not contain substances listed on major European lists of potential or suspected endocrine disruptors affecting human health.

SECTION 12. Ecological Information

The product is considered hazardous to the environment and harmful to aquatic organisms with long-term adverse effects.

12.1 Toxicity
Potassium bis(peroxymonosulphate) bis(sulphate)
LC50 Fish: 53 mg/l/96h Oncorhynchus mykiss (OECD 203)
EC50 Crustacea: 3.5 mg/l/48h Daphnia magna (OECD TG 202)
EC50 Algae/Aquatic Plants: > 1 mg/l/72h Pseudokirchneriella subcapitata (OECD TG 201)
NOEC Chronic (toxicity) Crustacea: 0,5 mg/l (Pseudokirchneriella subcapitata, (OECD TG 201)

Potassium bisulphate
LC50 Fish: 76.3 mg/l/96h Oncorhynchus mykiss
EC50 Crustacea: 120 mg/l/48h Daphnia magna
EC50 Algae/Aquatic Plants: 83.7 mg/l/72h Pseudokirchneriella subcapitata (OECD TG 201)

12.2 Persistence and degradability

Potassium bis(peroxymonosulphate) bis(sulphate)

Biodegradability: Not applicable to inorganic substances.

12.3 Bioaccumulation potential

Potassium bis(peroxymonosulphate) bis(sulphate)

Partition coefficient: n-octanol/water < 0.3 OECD TG 117

12.4 Mobility in soil:

Not available

12.5 Results of PBT and vPvB assessment

Based on available data, the product does not contain substances classified as PBT or vPvB ≥ 0.1%.

12.6 Endocrine-disrupting properties
Based on available data, the product does not contain substances listed on major European lists of potential or suspected endocrine disruptors affecting the environment.

12.7 Other adverse effects:

Not available

SECTION 13. Disposal Considerations

13.1 Waste treatment methods

Reuse if possible. Residues of the product must be considered hazardous special waste. The hazard of waste containing this product must be assessed in accordance with current legislation.
Disposal must be entrusted to an authorized waste management company in compliance with national and possibly local regulations.
Waste transport may be subject to ADR.

CONTAMINATED PACKAGING

Contaminated packaging must be sent for recovery or disposal according to national waste regulations.

European Waste Codes:

Contaminated empty container: 15 01 10* (packaging containing residues of hazardous substances or contaminated by such substances)
Cleaned empty container: 15 01 02 (plastic packaging)
Unused product: 16 03 03* (inorganic waste containing hazardous substances)

SECTION 14. Transport Information

14.1 UN number or ID number
ADR/RID, IMDG, IATA: 3260

14.2 UN proper shipping name
ADR/RID: CORROSIVE INORGANIC SOLID, ACIDIC, N.O.S. (POTASSIUM BIS(PEROXYMONOSULPHATE) BIS(SULPHATE), POTASSIUM BISULPHATE)
IMDG: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (PENTAPOTASSIUM BIS(PEROXYMONOSULPHATE) BIS(SULPHATE); POTASSIUM HYDROGENSULPHATE)
IATA: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (PENTAPOTASSIUM BIS(PEROXYMONOSULPHATE) BIS(SULPHATE); POTASSIUM HYDROGENSULPHATE)

14.3 Transport hazard class(es)

ADR/RID: Class 8 Label 8

IMDG: Class 8 Label 8

IATA: Class 8 Label 8

14.4 Packing group ADR/RID, IMDG, IATA: II

14.5 Environmental hazards
ADR/RID: No
IMDG: No
IATA: No

14.6 Special precautions for user

ADR/RID: HIN - Kemler 80 Special Provision - Limited Quantities 1 kg

IMDG: - EMS F-A, S-B - Limited Quantities 1 kg

IATA:

Cargo: Maximum quantity: 50 kg

Pass: Maximum quantity: 15 kg

Special Disposition: A3, A803

14.7 Bulk transport according to IMO instruments:

Not applicable

SECTIOM 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 to substances contained according to Annex XVII of Regulation (EC) 1907/2006

Contained substances, Point 75

Regulation (EU) 2019/1148 - relating to the marketing and use of explosives precursors: Not applicable

Substances in Candidate List (Art. 59 REACH)

Based on available data, the product does not contain SVHC substances in a concentration ≥ 0.1%.

Substances subject to authorization (Annex XIV REACH): None

Substances subject to export notification obligation Regulation (EU) 649/2012: None

Substances subject to the Rotterdam Convention: None

Substances subject to the Stockholm Convention: None

Health Controls:
Workers exposed to this hazardous chemical agent must undergo health surveillance according to Article 41 of Legislative Decree No. 81 of April 9, 2008, unless the safety and health risk for the worker is assessed as irrelevant, as required by Article 224, paragraph 2.

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances:

Pentapotassium bis(peroxymonosulphate) bis(sulphate).

SECTION 16. Other Information

Text of hazard statements (H) listed in sections 2-3 of the sheet:

Ox. Sol. 3:	Oxidizing solid, category 3
Acute Tox. 4:	Acute toxicity, category 4
Skin Corr. 1B:	Skin corrosion, category 1B
Eye Dam. 1:	Serious eye damage, category 1
Eye Irrit. 2:	Eye irritation, category 2
STOT SE 3:	Specific target organ toxicity – single exposure, category 3
Resp. Sens. 1:	Respiratory sensitization, category 1
Skin Sens. 1:	Skin sensitization, category 1
Aquatic Chronic 3:	Hazardous to the aquatic environment, chronic toxicity, category 3
H272:	May intensify fire; oxidizer.
H302:	Harmful if swallowed.
H314:	Causes severe skin burns and eye damage.
H318:	Causes serious eye damage.
H319:	Causes serious eye irritation.
H335:	May cause respiratory irritation.
H334:	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317:	May cause an allergic skin reaction.
H412:	Harmful to aquatic life with long lasting effects.

Decoding of use descriptors:

ERC 8b: Wide dispersive indoor use of reactive substances in open systems

ERC 8e: Widespread use of reactive processing aids (without inclusion in or on a product, outdoor use)

LCS C: Consumer use

LCS PW: Widespread use by professional workers

PC 20: pH regulators, flocculants, precipitants, neutralizing agents

PC 37: Water treatment chemicals

PROC 19: Manual activities with direct contact

PROC 8a: Transfer of a substance or mixture (filling/emptying) at non-dedicated facilities

PROC 8b: Transfer of a substance or mixture (filling/emptying) at dedicated facilities

PROC 9: Transfer of a substance or mixture into small containers (dedicated filling line, including weighing)

LEGEND:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS: Chemical Abstract Service number
CE: Identification number in ESIS (European chemical substances inventory)
CLP: Regulation (EC) No 1272/2008
DNEL: Derived no-effect level
EC50: Concentration causing effect in 50% of the test population
EmS: Emergency Schedule
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
IATA DGR: International Air Transport Association Dangerous Goods Regulations
IC50: 50% Inhibitory concentration for test population
IMDG: International Maritime Dangerous Goods Code
IMO: International Maritime Organization
INDEX: Identification number in Annex VI of the CLP
LC50: Lethal concentration 50%
LD50: Lethal dose 50%
OEL: Occupational exposure limit
PBT: Persistent, bioaccumulative and toxic, according to REACH
PEC: Predicted environmental concentration
PEL: Predicted exposure level
PNEC: Predicted no-effect concentration
REACH: Regulation (EC) 1907/2006
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
STA: Acute Toxicity Estimate
TLV: Threshold limit value
TLV CEILING: Concentration that should not be exceeded during any part of the working exposure
TWA: Time-weighted average exposure limit
TWA STEL: Short-term exposure limit
VOC: Volatile organic compound
vPvB: Very persistent and very bioaccumulative, according to REACH
WGK: Water hazard class (Germany)

General Bibliography
Regulation (EC) 1907/2006 of the European Parliament (REACH)
Regulation (EC) 1272/2008 of the European Parliament (CLP)
Regulation (EU) 2020/878 (Annex II to the REACH Regulation)
Regulation (EC) 790/2009 of the European Parliament (1st ATP CLP)
Regulation (EU) 286/2011 of the European Parliament (2nd ATP CLP)
Regulation (EU) 618/2012 of the European Parliament (3rd ATP CLP)
Regulation (EU) 487/2013 of the European Parliament (4th ATP CLP)
Regulation (EU) 944/2013 of the European Parliament (5th ATP CLP)
Regulation (EU) 605/2014 of the European Parliament (6th ATP CLP)
Regulation (EU) 2015/1221 of the European Parliament (7th ATP CLP)
Regulation (EU) 2016/918 of the European Parliament (8th ATP CLP)
Regulation (EU) 2016/1179 (9th ATP CLP)
Regulation (EU) 2017/776 (10th ATP CLP)
Regulation (EU) 2018/669 (11th ATP CLP)
Regulation (EU) 2019/521 (12th ATP CLP)
Delegated Regulation (EU) 2018/1480 (13th ATP CLP)

Regulation (EU) 2019/1148
Delegated Regulation (EU) 2020/217 (14th ATP CLP)
Delegated Regulation (EU) 2020/1182 (15th ATP CLP)
Delegated Regulation (EU) 2021/643 (16th ATP CLP)
Delegated Regulation (EU) 2021/849 (17th ATP CLP)
The Merck Index, 10th Edition
Handling Chemical Safety
INRS - Toxicological Sheet
Patty - Industrial Hygiene and Toxicology
N.I. Sax - Dangerous Properties of Industrial Materials, 7th edition, 1989
IFA GESTIS Website
ECHA Agency Website
Database of SDS models for chemical substances – Ministry of Health and Istituto Superiore di Sanità

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P.I. 02501230391
Recapiti: uff. tecnico Tel 347 055 28 03 - amministrazione Tel 347 22 43 104
www.acquatravel.it - e-mail: info@acquatravel.it

User note:
The information in this sheet is based on our knowledge as of the last revision date. The user must ensure the suitability and completeness of the information for the specific use of the product. This document should not be interpreted as a guarantee of any specific property of the product. Since product use is not under our direct control, the user is obliged to observe at their own responsibility the laws and rules on hygiene and safety in force. No responsibility is accepted for improper uses.
Provide adequate training to personnel assigned to the use of chemical products.

Methods of classification calculation:
Physical and chemical hazard classification is derived from criteria set out in CLP Regulation Annex I, Part 2. Methods of evaluation of physical and chemical properties are reported in section 9.
Health hazards: Product classification based on calculation methods in Annex I of the CLP,

Part 3, unless otherwise specified in section 11.
Environmental hazards: Product classification based on calculation methods in Annex I, Part 4, unless otherwise specified in section 12.

Changes from previous revision:
Changes have been made to the following sections: 03.