

Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 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: 210108000PP
Product name: QUASAR
UFI: D3P0-G0WN-W000-Q7GE

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

Intended use: Disinfectant for swimming pools and process water. Medical Surgical Device Reg. Ministry of Health n° 20121. For the continuous treatment of water for human and animal consumption

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

Uses Advised Against

All those not foreseen

Product in granules:

Single-dose sachet of (net content) 10, 20, 50, 100, 250 grams - for professional and home use

Tins of (net content) 10, 50, 100, 250, 500, 1000 grams - for professional and home use

Drums of (net content) 2, 5, 10, 20, 25, 50 Kg - for professional use

Product in tablets of 1, 3, 5, 7, 8, 10, 20, 75, 100, 150, 250, 300, 500, 600 grams:

Tins and / or drums of (net content) 100, 250, 500, 1000 grams - for professional and domestic use

Drums of (net content) 1, 2, 5, 10, 15, 20, 25, 30, 40, 50 Kg - for professional use

1.3. Details of the supplier of the safety data sheet

Name: Barchemicals srl
Full address: Via Salvador Allende 14
District and Country: 41051 Castelnuevo Rangone ((MO)) Italia
Tel: +39 059 536502
Fax: +39 059 536742

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

sds@barchemicals.it

Supplier:

Barchemicals

1.4. Emergency telephone number

For Italy:

For urgent inquiries refer to

Centro Antiveleni di Pavia 0382 24444 (CAV IRCCS Fondazione Maugeri - Pavia) -
Centro Antiveleni di Milano 02 66101029 (CAV Ospedale Niguarda Ca' Granda -
Milano) - Centro Antiveleni di Bergamo 800 883300 (CAV Ospedali Riuniti -
Bergamo) - Centro Antiveleni di Firenze 055 7947819 (CAV Ospedale Careggi -
Firenze) - Centro Antiveleni di Roma 06 3054343 (CAV Policlinico Gemelli - Roma) -
Centro Antiveleni di Roma 06 49978000 (CAV Policlinico Umberto I - Roma) -
Centro Antiveleni di Roma 06 68593726 (CAV Ospedale Pediatrico Bambino Gesù) -

Centro Antiveleni di Napoli 081 5453333 (CAV Ospedale Cardarelli - Napoli) -
Centro Antiveleni di Foggia 0881 800183459 (Az. Osp. Univ. Foggia) - Centro
Antiveleni di Verona 800011858 (Azienda Ospedaliera Integrata Verona).

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:

Oxidising solid, category 2	H272	May intensify fire; oxidiser.
Acute toxicity, category 4	H302	Harmful if swallowed.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, acute toxicity, category 1	H400	Very toxic to aquatic life.

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:

H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H400	Very toxic to aquatic life.
EUH031	Contact with acids liberates toxic gas.
EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine).

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.
P260	I wouldn't breathe gas.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves / protective clothing / eye protection / face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER / doctor / . . . if you feel unwell.
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 [or shower].
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for 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/ ...
P363	Wash contaminated clothing before reuse.

SECTION 2. Hazards identification ... / >>

P370+P378	In case of fire: use water to extinguish.
P391	Collect spillage.
P405	Store locked up.
P501	Dispose of contents/container in accordance with applicable regulations.

Contains: CALCIUM HYPOCHLORITE
CALCIUM DIHYDROXIDE

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)
CALCIUM HYPOCHLORITE		
INDEX 017-012-00-7	$80 \leq x < 100$	Ox. Liq. 2 H272, Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=10, EUH031 LD50 Oral: 850 mg/kg
EC 231-908-7		
CAS 7778-54-3		
CALCIUM CHLORIDE		
INDEX 017-013-00-2	$3,9 \leq x < 4,1$	Eye Irrit. 2 H319
EC 233-140-8		
CAS 10043-52-4		
CALCIUM DIHYDROXIDE		
INDEX	$3,9 \leq x < 4,1$	Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335
EC 215-137-3		
CAS 1305-62-0		
CALCIUM CHLORATE		
INDEX	$1 \leq x < 1,1$	Ox. Sol. 2 H272
EC 233-378-2		
CAS 10137-74-3		

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 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor. Rinse your mouth with running water. In case of (spontaneous) vomiting, place the victim on the ground on the left side, with the head down (to keep the airways clear).

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

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

SECTION 4. First aid measures ... / >>

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

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

If medical advice is needed, have product container or label at hand. Symptomatic treatment.

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING MEANS

Water jet.

UNSUITABLE EXTINGUISHING MEANS

Water spray, chemical powder, foam, carbon dioxide (CO₂).

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products. If large quantities of the product are involved in a fire, they can make it considerably worse. Powerful oxidizer. Contact with combustible substances may cause a fire. See also section 10.

If involved in a fire they develop: chlorine, chlorine oxides.

5.3. Advice for firefighters

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

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. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid bunching of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not mix with other products. Do not mix with other pool products. Do not add water to the product. Add the product to the water.

Avoid dust formation during handling. Remove dust regularly. See also section 8.

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. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details. Keep the label on the containers.

Storage class TRGS 510 (Germany): 5.1B

7.3. Specific end use(s)

See section 1.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

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
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; 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.
	TLV-ACGIH	ACGIH 2022

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

CALCIUM DIHYDROXIDE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	1		4		
VLEP	FRA	1		4		
GVI/KGVI	HRV	1		4		RESP
NDS/NDSch	POL	2		6		INHAL
NDS/NDSch	POL	1		4		RESP
TLV	ROU	1		4		RESP
WEL	GBR	5				INHAL
WEL	GBR	1		4		RESP
OEL	EU	1		4		RESP
TLV-ACGIH		5				

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,49	mg/l
Normal value in marine water	0,32	mg/l
Normal value of STP microorganisms	3	mg/l
Normal value for the terrestrial compartment	1080	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute		Chronic		Acute		Chronic	
	local	systemic	local	systemic	local	systemic	local	systemic
Inhalation	4		1		4		1	
	mg/m3		mg/m3		mg/m3		mg/m3	

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 ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

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

Provide an emergency shower with face and eye wash station.

Provide a good standard of general ventilation (3 to 5 air changes per hour - dilution efficiency: 30%)

In case of formation of dusts / mists / aerosols: provide local aspiration at the emission points (Dilution efficiency: 90%).

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.

Suitable gloves (protection factor 6, breakthrough time > 480 minutes)

material (thickness, mm): polychloroprene (0.5 mm).

SKIN PROTECTION

Protective clothing for chemicals.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

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

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, a mask with a type B filter combined with a type P filter should be worn (see standard EN 14387).

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.

ENVIRONMENTAL EXPOSURE CONTROLS

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

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

Filter: B-P2

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	tablets/granules	
Colour	white	Method:visual
Odour	typical of chlorine	Method:organoleptic
Odour threshold	1-3 ppm	Remark:chlorine
Melting point / freezing point	> 100 °C	Method:Regulation (EC) N. 440/2008, Annex, A.1
Initial boiling point	not determined	
Flammability	not applicable	Reason for missing data:not inflammable
Lower explosive limit	not applicable	Reason for missing data:Not explosive
Upper explosive limit	not applicable	Reason for missing data:Not explosive
Flash point	not applicable	Reason for missing data:not inflammable
Auto-ignition temperature	not applicable	Reason for missing data:not self-igniting
Decomposition temperature	88 °C	Method:VDI 2263, Part I, 1.5.1 (Lutolf)
pH	11,5-12,5	Method:ISO 4316 Concentration: 1 % Temperature: 20 °C
Kinematic viscosity	not determined	
Solubility	soluble in water	Method:Regulation (EC) N. 440/2008, Annex A.6 Remark:217 g/ l Temperature: 25 °C
Partition coefficient: n-octanol/water	-2,46	Method:Regulation (EC) N. 440/2008, Annex A.8 Temperature: 25 °C
Vapour pressure	not determined	
Density and/or relative density	2	Method:Regulation (EC) N. 440/2008, Annex A.3 Temperature: 25 °C
Relative vapour density	not determined	
Particle characteristics	not available	

9.2. Other information

No further information available.

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Explosive properties	not explosive
Oxidising properties	oxidant

SECTION 10. Stability and reactivity

10.1. Reactivity

Oxidizing property.

CALCIUM HYPOCHLORITE
It can promote fires. Strong oxidizer.

10.2. Chemical stability

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

Stable under recommended storage and handling conditions. Please refer to section 7 of the SDS.

CALCIUM HYPOCHLORITE

Stable in normal conditions of use and storage. Maintaining a temperature of less than 35 °C

SADT 88 °C

Decomposes on contact with: heat, light, UV rays, high temperatures.

10.3. Possibility of hazardous reactions

Never mix this product with organic chlorine (Trichloro and Dichloro) in the same container.

Explosion hazard: alcohol, ethanol, organic substances, methanol.

Violent reaction with: ammonium compounds, halogenated hydrocarbons, phenol, reducing agents, nitro-derivatives, strong oxidants and flammable substances.

CALCIUM HYPOCHLORITE

Risk of explosion on contact with: alcohols, flammable substances, combustible substances, organic substances.

Reacts violently with: oxidising agents, reducing agents, phenols, halogenated hydrocarbons, amines.

On contact with: acids, Develops: toxic gases, chlorine

Do not mix in the same container with organic chlorine compounds (trichloroisocyanuric acid, dichloroisocyanurate).

10.4. Conditions to avoid

Do not mix with acids. Toxic gases (chlorine) can be released.

CALCIUM HYPOCHLORITE

Keep away from: acids.

Avoid exposure to: high temperatures, naked flames, heat, sources of heat, ignition sources, overheated surfaces.

10.5. Incompatible materials

Concentrated acids.

Attention! Do not use in combination with other products. Hazardous gases (Chlorine) may be formed.

CALCIUM HYPOCHLORITE

Avoid contact with: combustible substances, ammonia, amines, chlorine compounds, sulphur compounds, metal oxides.

10.6. Hazardous decomposition products

It decomposes into chlorine and oxygen when heated above 180 ° C.

Toxic gases / vapors.

Chlorine.

CALCIUM HYPOCHLORITE

If heated over 180 ° C it decomposes emitting toxic gases (chlorine, hydrochloric acid, sodium chlorate).

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

Dermal, inhalation.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

See effects for substances.

Interactive effects

No interactive effects known.

ACUTE TOXICITY

ATE (Inhalation) of the mixture:

Not classified (no significant component)

SECTION 11. Toxicological information ... / >>

ATE (Oral) of the mixture: 850,00 mg/kg
ATE (Dermal) of the mixture: Not classified (no significant component)

CALCIUM HYPOCHLORITE
LD50 (Dermal): > 2000 mg/kg rabbit
LD50 (Oral): 850 mg/kg rat

CALCIUM CHLORIDE
LD50 (Dermal): 2630 mg/kg Rat
LD50 (Oral): 1000 mg/kg Rat

CALCIUM DIHYDROXIDE
LD50 (Dermal): > 2500 mg/kg EU method B.3
LD50 (Oral): 7340 mg/kg Rat (OECD 425)

SKIN CORROSION / IRRITATION

Corrosive for the skin
Classification according to the experimental Ph value

CALCIUM HYPOCHLORITE
Corrosive.

CALCIUM DIHYDROXIDE
Irritant (OECD 404).

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

CALCIUM HYPOCHLORITE
Causes serious eye damage.

CALCIUM DIHYDROXIDE
Irritant (OECD 405).

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

CALCIUM DIHYDROXIDE
Negative (OECD 429).

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CALCIUM DIHYDROXIDE
Negative (OECD 482).

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

CALCIUM DIHYDROXIDE
Negative (Study Report 1991, ECHA).

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

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

This product is dangerous for the environment and highly toxic for aquatic organisms.

12.1. Toxicity

CALCIUM HYPOCHLORITE
LC50 - for Fish > 0,049 mg/l/96h *Lepomis macrochirus*

CALCIUM CHLORIDE
LC50 - for Fish 10650 mg/l/96h *Lepomis macrochirus*
EC50 - for Crustacea 2280 mg/l/48h *Daphnia magna*

CALCIUM DIHYDROXIDE
LC50 - for Fish > 100 mg/l/96h OECD 203
EC50 - for Crustacea 49 mg/l/48h OECD 202
EC50 - for Algae / Aquatic Plants 185 mg/l/72h

12.2. Persistence and degradability

CALCIUM CHLORIDE
Solubility in water > 10000 mg/l
Degradability: information not available

CALCIUM DIHYDROXIDE
Solubility in water 1000 - 10000 mg/l

12.3. Bioaccumulative potential

CALCIUM HYPOCHLORITE
Partition coefficient: n-octanol/water -2,46

12.4. Mobility in soil

High mobility expected in soil.

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.
No other adverse effects are known.

SECTION 12. Ecological information ... / >>

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.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

European Waste Code:

Empty contaminated container: 15 01 10 * (packaging containing residues of dangerous substances or contaminated by these substances)

Empty container cleaned: 15 01 02 (plastic packaging)

Unused product: 16 03 03 * (inorganic waste, containing dangerous substances)

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA: 3487

14.2. UN proper shipping name

ADR / RID: CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE

IMDG: CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE

IATA: CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE

14.3. Transport hazard class(es)

ADR / RID: Class: 5.1 Label: 5.1 (8)

IMDG: Class: 5.1 Label: 5.1 (8)

IATA: Class: 5.1 Label: 5.1 (8)



14.4. Packing group

ADR / RID, IMDG, IATA: II

SECTION 14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous



IMDG: Marine Pollutant



IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 58 Special provision: 314, 322	Limited Quantities: 1 kg	Tunnel restriction code: (E)
IMDG:	EMS: F-H, S-Q	Limited Quantities: 1 kg	
IATA:	Cargo: Passengers: Special provision:	Maximum quantity: 25 Kg Maximum quantity: 5 Kg A136	Packaging instructions: 562 Packaging instructions: 558

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: P8-E1

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

Contained substance
Point 75

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

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage \geq than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls

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

15.2. Chemical safety assessment

A chemical safety assessment has 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:

Ox. Liq. 2	Oxidising liquid, category 2
Ox. Sol. 2	Oxidising solid, category 2
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
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
EUH031	Contact with acids liberates toxic gas.
EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine).

Use descriptor system:

ERC 8b	Widespread use of reactive processing aid (no inclusion into or onto article, indoor)
ERC 8e	Widespread use of reactive processing aid (no inclusion into or onto article, outdoor)
LCS C	Consumer use
LCS PW	Widespread use by professional workers
PC 20	Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents
PC 37	Water treatment chemicals
PROC 19	Manual activities involving hand contact
PROC 8a	Transfer of substance or mixture (charging and discharging) at non- dedicated facilities
PROC 8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC 9	Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

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

SECTION 16. Other information ... / >>

- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

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2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
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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
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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)
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20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)

- 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:

03.