



Safety Data Sheet dated 29/8/2017, version 3

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

1.1. Product identifier

Mixture identification:

Trade name: QUASAR

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

Identified use:

Disinfectant for swimming pools and process water. Medical-surgical device reg. At the ministry of health n° 20121.

Uses advised against:

Any other use different from the identified uses.

1.3. Details of the supplier of the safety data sheet

Company:

BARCHEMICALS SRL

VIA S.ALLENDE 14

CASTELNUOVO RANGONE (MO)

ITALY

PHONE. +39 059/536502

FAX. +39 059/536742

www.barchemicals.it

Competent person responsible for the safety data sheet:

barani.corrado@barchemicals.it


1.4. Emergency telephone number


Barani Dr.Corrado - MOBILE PHONE. +39 335/6109383


SECTION 2: Hazards identification


2.1. Classification of the substance or mixture

EC regulation criteria n°1272/2008 (CLP)

 Danger, Ox. Sol. 2, May intensify fire oxidiser..

 Warning, Acute Tox. 4, Harmful if swallowed.

 Danger, Skin Corr. 1A, Causes severe skin burns and eye damage.

 Warning, Aquatic Acute 1, Very toxic to aquatic life.

EUH031 Contact with acids liberates toxic gas.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

H272 May intensify fire; oxidiser.

H302 Harmful if swallowed.

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H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

Precautionary statements:

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER if you feel unwell.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P405 Store locked up.

P501 Dispose of the product in accordance with local / regional / national / international regulations.

Special Provisions:

EUH031 Contact with acids liberates toxic gas.

EUH206 Warning! Do not use together with other products. May release dangerous gases (chlorine).

Contains

Calcium hypochlorite

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards





SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 90%	Calcium hypochlorite	Index number: 017-012-00-7 CAS: 7778-54-3 EC: 231-908-7 REACH No.: 01-2119487005-40	 2.14/2 Ox. Sol. 2 H272  3.1/4/Oral Acute Tox. 4 H302  3.2/1A Skin Corr. 1A H314  4.1/A1 Aquatic Acute 1 H400
>= 0.5% - < 1%	Incineration inhibitors		The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
>= 0.25% - < 0.5%	Activating agents		The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Remove contaminated clothing immediately and dispose off safely.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap. OBTAIN IMMEDIATE MEDICAL ATTENTION.

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In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Rinse well your mouth

Do NOT induce vomiting.

Give nothing to eat or drink.

Immediately call a physician.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

If the subject is faint, keep it in a stable position on the side when transporting.

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

Breathlessness.

Cough

Malaise.

Gastrointestinal disorders

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

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

Treatment:

None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Full jet water.

Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons:

Powder

5.2. Special hazards arising from the substance or mixture

Combustion produces toxic gas (Chlorine).

Do not inhale explosion and combustion gases.

5.3. Advice for firefighters

Immediately isolate the area by removing all persons from the area of the accident in the event of a fire. No action shall be taken involving any personal risk or without proper training. Firefighters must wear protective equipment and self-contained breathing apparatus (SCBA) with a full-face mask on the working face at positive pressure. Fire extinguishers (including helmets, protective boots and gloves) conforming to European Standard EN469 will provide basic protection for chemical accidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate the surrounding areas.

Prevent entry of foreign and unprotected personnel.

Do not touch or walk on spilled material.

Avoid breathing vapors or mists.

Provide adequate ventilation.

Use appropriate respiratory protection.

Wear personal protection equipment.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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- 6.3. Methods and material for containment and cleaning up
Stop the escape if there is no risk. Move the containers from the spill area. Get closer to the source of overwhelming emission. Prevent spills in sewage systems, waterways, basements or restricted areas. Wash and convey the spilled amounts in a waste treatment plant.
Collect with the shovel and place in suitable containers for disposal. Avoid dust formation.
After cleaning each trace with water. Eliminate in compliance with the applicable standard.
- 6.4. Reference to other sections
See also section 8 and 13

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
Avoid contact with skin and eyes, inhalation of vapours and mists.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities
Keep in the original container protected from direct sunlight in a dry, cool and well-ventilated area, away from other incompatible materials (see section 10) and food and drink. Keep the container tight and sealed until use. Open containers should be carefully resealed and kept straight to avoid accidental spillage of the product. Do not store in labels without label.
Keep away from combustible material and avoid contact with organic material.
Do not eat, drink or smoke at the workplace. Foods and beverages should be consumed only in areas specifically identified after removing contaminated clothing and protective equipment and after washing your hands. Wash in any case hands after handling the substance / mixture.
Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.
Keep away from food, drink and feed.
Incompatible materials:
Keep away from acids.
Keep away from combustible materials.
Instructions as regards storage premises:
Cool and adequately ventilated.
- 7.3. Specific end use(s)
See section 1.2.

SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
No occupational exposure limit available
DNEL Exposure Limit Values
N.A.
PNEC Exposure Limit Values
N.A.
- 8.2. Exposure controls
Eye/face protection:
Eye glasses with side protection. EN166
Protection for skin:
Protective suit.
Protection for hands:
Gloves resistant to chemicals. EN 374
Respiratory protection:
Respiratory protection necessary for the formation of dust. Filter device (EN 147). Type: B-P2, combined gas filters, inorganic (chlorine) vapors and particles; Color code: gray / white.

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Thermal Hazards:

Not applicable (the product is handled at room temperature)

Environmental exposure controls:

Do not allow the product to be absorbed from the soil or from entering waterways or sewers.

Do not let product enter drains. Discharge into the environment must be avoided.

The product is toxic to the aquatic environment.

Appropriate engineering controls:

Ensure adequate ventilation. Comply with the maximum concentration values in the workplace.

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance and colour:	Tablet/ White grain	--	--
Odour:	Characteristic of chlorine.	--	--
Odour threshold:	Not Available	--	--
pH:	11,0	--	10 g/l
Melting point / freezing point:	>180 °C (decompono)	--	--
Initial boiling point and boiling range:	Not Available	--	--
Flash point:	Not inflammable	--	--
Evaporation rate:	N.A.	--	--
Solid/gas flammability:	May cause ignition of combustible materials	--	--
Upper/lower flammability or explosive limits:	Not Available	--	--
Vapour pressure:	N.A.	--	--
Vapour density:	N.A.	--	--
Relative density:	1.3 g/cm ³	--	at 20 °C
Solubility in water:	180 g/l	--	at 20 °C
Solubility in oil:	N.A.	--	--
Partition coefficient (n-octanol/water):	Not applicable	--	Mixture of ionizing substances
Auto-ignition temperature:	Non-inflammable product	--	--
Decomposition temperature:	170-180 °C	--	--
Viscosity:	N.A.	--	--
Explosive properties:	Non-explosive product	--	--
Oxidizing properties:	Oxidant Product	--	--

9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	N.A.	--	--

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Fat Solubility:	Not applicable	--	--
Conductivity:	N.A.	--	--
Substance Groups relevant properties	N.A.	--	--

SECTION 10: Stability and reactivity

- 10.1. Reactivity
Oxidizing properties.
- 10.2. Chemical stability
Stable under recommended storage and handling. Please refer to section 7 of the MSDS.
- 10.3. Possibility of hazardous reactions
Never mix this product with organic chlorine in the same container (Trichloro and Dichloro).
Explosion hazard: alcohol, ethanol, organic substances, methanol.
Intense reaction with: ammonium compounds, halogenated hydrocarbons, phenol, reducing agents, nitroderivatives, strong oxidants and flammable substances.
- 10.4. Conditions to avoid
Do not mix with acids. It can be produced toxic gases (chlorine).
- 10.5. Incompatible materials
Concentrated acids.
Reducing agents.
organic substances.
- 10.6. Hazardous decomposition products
It decomposes in chlorine and oxygen if heated above 180 ° C.
Toxic gases / vapors.

SECTION 11: Toxicological information

- 11.1. Information on toxicological effects
Toxicological information of the product:
N.A.
- Toxicological information of the main substances found in the product:
calcium hypochlorite - CAS: 7778-54-3
- a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 850 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg
Test: LD50 - Route: Inhalation - Species: Rat = 1300 mg/l
- b) skin corrosion/irritation:
Route: Skin Positive
- c) serious eye damage/irritation:
Positive

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

- a) acute toxicity;
b) skin corrosion/irritation;
c) serious eye damage/irritation;
d) respiratory or skin sensitisation;
e) germ cell mutagenicity;
f) carcinogenicity;
g) reproductive toxicity;
h) STOT-single exposure;
i) STOT-repeated exposure;
j) aspiration hazard.

SECTION 12: Ecological information

- 12.1. Toxicity

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No information is available on the mixture as a whole. This is the information on ecotoxicological effects of the individual components.

calcium hypochlorite - CAS: 7778-54-3

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Bobwhite quail = 3474 mg/kg

Endpoint: LC50 - Species: Daphnia = 0.11 mg/l - Duration h: 48

Endpoint: LC50 - Species: Bluegill sunfish = 0.088 mg/l - Duration h: 96

Endpoint: LC50 - Species: Rainbow trout = 0.16 mg/l - Duration h: 96

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information



14.1. UN number

ADR-UN Number: 3487

IATA-UN Number: 3487

IMDG-UN Number: 3487

14.2. UN proper shipping name

ADR-Shipping Name: (calcium hypochlorite)

IATA-Shipping Name: (calcium hypochlorite)

IMDG-Shipping Name: (calcium hypochlorite)

14.3. Transport hazard class(es)

ADR-Class: 5.1

IATA-Class: 5.1

IATA-Label: 8 + 5.1

IMDG-Class: 5.1

14.4. Packing group

ADR-Packing Group: II

IATA-Packing group: II

IMDG-Packing group: II

14.5. Environmental hazards

ADR-Environmental Pollutant: Yes

IMDG-Marine pollutant: Marine Pollutant

Most important toxic component: calcium hypochlorite

14.6. Special precautions for user

ADR-Subsidiary risks: 8

ADR-S.P.: 314 322

ADR-Transport category (Tunnel restriction code): 2 (E)

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IATA-Passenger Aircraft:	558
IATA-Subsidiary risks:	8
IATA-Cargo Aircraft:	562
IATA-S.P.:	A136 A803
IATA-ERG:	5C
IMDG-EmS:	F-H , S-Q
IMDG-Subsidiary risks:	8
IMDG-Stowage and handling:	Category D
IMDG-Segregation:	Protected from sources of heat. Cargo transport units shall be shaded from direct sunlight. Packages in cargo transport units shall be stowed so as to allow for adequate air circulation throughout the cargo. "Separated from" ammonium compounds, acids, cya

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
N.A.

SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
- Dir. 98/24/EC (Risks related to chemical agents at work)
 - Dir. 2000/39/EC (Occupational exposure limit values)
 - Regulation (EC) n. 1907/2006 (REACH)
 - Regulation (EC) n. 1272/2008 (CLP)
 - Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
 - Regulation (EU) 2015/830
 - Regulation (EU) n. 286/2011 (ATP 2 CLP)
 - Regulation (EU) n. 618/2012 (ATP 3 CLP)
 - Regulation (EU) n. 487/2013 (ATP 4 CLP)
 - Regulation (EU) n. 944/2013 (ATP 5 CLP)
 - Regulation (EU) n. 605/2014 (ATP 6 CLP)
 - Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

No restriction.

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions :

- Directive 2012/18/EU (Seveso III)
- Regulation (EC) nr 648/2004 (detergents).
- Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

- Seveso III category according to Annex 1, part 1
- Product belongs to category: E1

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

Substances for which a Chemical Safety Assessment has been carried out:

None

SECTION 16: Other information

For professional use.

Full text of phrases referred to in Section 3:

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H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H400 Very toxic to aquatic life.

Hazard class and hazard category	Code	Description
Ox. Sol. 2	2.14/2	Oxidising solid, Category 2
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Corr. 1A	3.2/1A	Skin corrosion, Category 1A
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1

Paragraphs modified from the previous revision:

SECTION 1: Identification of the substance/mixture and of the company/undertaking
SECTION 2: Hazards identification
SECTION 3: Composition/information on ingredients
SECTION 4: First aid measures
SECTION 5: Firefighting measures
SECTION 6: Accidental release measures
SECTION 7: Handling and storage
SECTION 8: Exposure controls/personal protection
SECTION 9: Physical and chemical properties
SECTION 10: Stability and reactivity
SECTION 11: Toxicological information
SECTION 15: Regulatory information
SECTION 16: Other information

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,
Commission of the European Communities
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van
Nostrand Reinold

Liability exclusion clause: The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

For professional use.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CLP: Classification, Labeling, Packaging.
DNEL: Derived No Effect Level.
EINECS: European Inventory of Existing Commercial Chemical Substances.
GefStoffVO: Ordinance on Hazardous Substances, Germany.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

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ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.