

Safety Data Sheet

according to Regulation (EC) No 1907/2006



CHLORISOL

Revision date: 24.03.2020

Product code: 11386-0001

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SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Aqueous solution

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
10043-52-4	calcium chloride			25 - 50 %
	233-140-8		01-2119494219-28	
	Eye Irrit. 2; H319			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately. In the event of persistent symptoms receive medical treatment.

After inhalation

Move to fresh air in case of accidental inhalation of vapours. In the event of symptoms refer for medical treatment.

After contact with skin

Wash off immediately with soap and plenty of water. Consult a doctor if skin irritation persists.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical treatment by eye specialist.

After ingestion

Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse out mouth and give plenty of water to drink. Consult a physician.

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

Prolonged skin contact may cause irritation. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

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

Treat symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam, dry chemical, carbon dioxide (CO₂), water-spray.

Product itself does not burn. Use fire fighting measures that suit the environment and products stored.

Unsuitable extinguishing media

Full water jet

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5.2. Special hazards arising from the substance or mixture

Chlorine (Cl₂), Hydrogen chloride (HCl)

5.3. Advice for firefighters

Suppress gases/vapours/mists with water spray jet. Cool containers at risk with water spray jet. Use breathing apparatus with independent air supply. Wear full protective suit.

Additional information

Collect contaminated fire-fighting water, avoid any release into the sewerage. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

In case of vapour formation use respirator. Ensure adequate ventilation. Avoid contact with eyes, skin or mucous membrane. Use personal protective clothing.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/ground water.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).

Shovel into suitable container for disposal.

6.4. Reference to other sections

Information for disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Do not inhale vapour/aerosol. In case of insufficient ventilation, especially in confined areas. Use only in thoroughly ventilated areas. Avoid contact with eyes, skin or mucous membrane.

Advice on protection against fire and explosion

No special precautions required. The product is not combustible.

Further information on handling

Keep container tightly closed.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a dry, cool and well-ventilated place.

Keep only in original container.

Hints on joint storage

Keep away from food, drink and animal feeding stuffs.

Further information on storage conditions

Protect from frost.

7.3. Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice on limit values

The product contains no relevant quantities of materials with critical values that require monitoring at the

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workplace.

8.2. Exposure controls



Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas.

Protective and hygiene measures

Wash hands before breaks and immediately after handling the product. When using do not eat, drink or smoke. Avoid contact with skin, eyes and clothing. Take off immediately all contaminated clothing.

Eye/face protection

Tightly fitting goggles (EN 166).

Eye wash bottle with pure water (EN 15154).

Hand protection

Chemical-resistant gloves (EN 374) Recommended material [type, thickness, permeation time]: butyl rubber, 0,7 mm, protective index 6, corresponding to 480 minutes of permeation time according to EN 374.

Follow the recommendations of the glove manufacturer for breakthrough properties especially for workplace conditions involving mechanical stress and contact duration.

Skin protection

Long sleeved clothing (DIN EN ISO 6530)

Respiratory protection

No personal respiratory protective equipment normally required.

Breathing apparatus in the event of aerosol or mist formation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Colourless, clear
Odour:	Characteristic
pH-Value (at 20 °C):	8 - 9

Changes in the physical state

Melting point:	Not applicable
Initial boiling point and boiling range:	approx. 100 °C
Sublimation point:	No data available
Softening point:	No data available
Flash point:	Not applicable
Sustaining combustion:	Not sustaining combustion

Flammability

Solid:	Not applicable
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Explosive properties

The product is not explosive.

Lower explosion limits:	Not applicable
Upper explosion limits:	Not applicable
Ignition temperature:	Not applicable

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Auto-ignition temperature

Solid:

Not applicable

Oxidizing properties

The product is not self-igniting

Vapour pressure:
(at 20 °C)

23 hPa

Density (at 20 °C):

approx. 1,35 g/cm³

Water solubility:
(at 20 °C)

Completely miscible

Solubility in other solvents

No data available

Partition coefficient:

No data available

Viscosity / dynamic:

No data available

Viscosity / kinematic:

No data available

Flow time:

No data available

Vapour density:

No data available

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Keep from freezing.

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

Calcium oxide, Chlorine (Cl₂), Hydrogen chloride (HCl)

Further information

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.

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CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
10043-52-4	calcium chloride					
	oral	LD50 mg/kg	2750	Rat		

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

No data available

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method
10043-52-4	calcium chloride						
	Acute fish toxicity	LC50 mg/l	13400	96 h	Gambusia affinis		
	Acute algae toxicity	ErC50 mg/l	3130		Scenedesmus subspicatus		
	Acute crustacea toxicity	EC50	144 mg/l	48 h	Daphnia magna		

12.2. Persistence and degradability

Not determined.

12.3. Bioaccumulative potential

Not determined.

12.4. Mobility in soil

Not determined.

12.5. Results of PBT and vPvB assessment

Not determined.

12.6. Other adverse effects

Low hazard to waters.

Further information

Do not flush into surface water or sanitary sewer system.

SECTION 13: Disposal considerations

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13.1. Waste treatment methods

Disposal recommendations

Should not be disposed of with household waste. Do not flush into surface water or sanitary sewer system. Where possible recycling is preferred to disposal. The waste code number must be agreed with the disposer / manufacturer / competent authority.

List of Wastes Code - residues/unused products

160508 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded organic chemicals consisting of or containing hazardous substances; hazardous waste

List of Wastes Code - used product

160508 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded organic chemicals consisting of or containing hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

150102 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); plastic packaging

Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal. Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Packaging that cannot be cleaned should be disposed of like the product.

Cleaning agent: Water

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

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ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

2004/42/EC (VOC): 0 %

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

Update 2020

Abbreviations and acronyms

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route (Agreement concerning the international carriage of Dangerous goods by Road)

IMDG-Code: International Maritime Code for Dangerous Goods

ICAO: International Civil Aviation Organisation (IATA: The International Air Transport Association)

GHS: Globally Harmonized System of Classification, Labelling and Packaging of Chemicals

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Eye Irrit. 2; H319	Calculation method

Relevant H and EUH statements (number and full text)

H319 Causes serious eye irritation.

Further Information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)