

Product
SILICATRAPP

www.watchwater.de

Version: 1.0
Printing Date: 25.11.2019

Watch-Water® encourages and expects you to read and understand the entire MSDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1 CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product Name: SILICATRAPP

Application: Water Treatment

Company Identification/Supplier Watch Water GmbH
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Germany
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2 HAZARDS IDENTIFICATION**Classification of the substance or mixture**

REGULATION (EC) No 1272/2008
According to European Directive
67/548/EEC as amended.

Eye effect, Category 2.
This substance is not classified as dangerous
according to Directive 67/548/EEC

Label elements

REGULATION (EC) No 1272/2008

- Signal word
- Hazard pictograms

Warning



- **Hazard statements**
- **Precautionary statements**

H319 - Causes serious eye irritation.
P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves/ protective
clothing/ eye protection/ face protection.
P305 + P351 + P338 - IF IN EYES: Rinse
cautiously with water for several minutes.
Remove contact lenses, if present and easy
to do. Continue rinsing.
P308 + P313 - IF exposed or concerned: Get
medical advice/ attention.

Other hazards

The substance does not meet the criteria for PBT or vPvB substance.
No other hazards identified.

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3 COMPOSITION / INFORMATION ON INGREDIENTS

Composition

Material	CAS No.	Concentration (weight %)
Magnesium oxide	1309-48-4	80%
Proprietary	Proprietary	10%
Proprietary	Proprietary	10%

Amounts specified are typical and do not represent a specification. Remaining components are proprietary, non-hazardous and/or present at amounts below reportable limits.

4 FIRST-AID MEASURES

Description of first aid measures

- **General Information:** No known delayed effects. Consult a physician for all exposures except for minor instances
- **Eye contact:** Rinse immediately with plenty of water and seek medical advice.
- **Skin contact:** Carefully and gently brush the contaminated body surfaces in order to remove all traces of product. Wash affected area immediately with plenty of water. Remove contaminated clothing. If skin irritation persists, call a physician.
- **Inhalation:** Move source of dust or move person to fresh air. Obtain medical attention immediately.
- **Ingestion:** Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

The mixture is not acutely toxic via the oral, dermal, or inhalation route. The mixture is classified as irritating to skin and the respiratory tract, and entails a risk of serious damage to the eye. There is no concern for adverse systemic effects because local effects (pH-effect) are the major health hazard.

5 FIRE FIGHTING MEASURES

Extinguishing media

- **Suitable extinguishing media:** The product is not combustible. Use a dry powder, foam or CO₂ fire extinguisher to extinguish the surrounding fire. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- **Unsuitable extinguishing media:** DO NOT use water.

Advice for firefighters

Avoid dust formation. Use breathing apparatus. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Advice or non-emergency personnel

- Ensure adequate ventilation.
- Keep dust levels to a minimum.

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- Keep unprotected persons away.
- Avoid contact with skin, eyes, and clothing – wear suitable protective equipment (see section 8).
- Avoid inhalation of dust – ensure that sufficient ventilation or suitable respiratory protective equipment is used, wear suitable protective equipment (see section 8).

Advice for emergency responders

See section 6.

Environmental precautions

Contain the spillage. Keep the material dry if possible. Cover area if possible to avoid unnecessary dust hazard. Avoid uncontrolled spills to watercourses and drains (pH rising). Any large spillage into watercourses must be alerted to the Environment Agency or other regulatory body.

Methods and materials for containment and cleaning up

- Avoid dust formation.
- Keep the material dry if possible.
- Pick up the product mechanically in a dry way.
- Use vacuum suction unit, or shovel into bags.

Reference to other sections

For more information on exposure controls/personal protection or disposal considerations, please check section 8 and 13.

7	HANDLING AND STORAGE
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Precautions for safe handling**Protective measures**

Keep dust levels to a minimum. Minimize dust generation. Enclose dust sources, use exhaust ventilation (dust collector at handling points). Handling systems should preferably be enclosed. When handling bags usual precautions should be paid to the risks outlined in the Council Directive 90/269/EEC.

Advice on general occupational hygiene

Avoid inhalation, ingestion and contact with skin and eyes. General occupational hygiene measures are required to ensure safe handling of the substance. These measures involve good personal and housekeeping practices (i.e. regular cleaning with suitable cleaning devices), no drinking, eating and smoking at the workplace. Shower and change clothes at end of work shift. Do not wear contaminated clothing at home.

Conditions for safe storage, including any incompatibilities

- Store in a dry place.
- Minimize exposure to air and moisture to avoid degradation.
- Bulk storage should be in purpose designed silos.
- Keep away from children.
- Keep away from acids, significant quantities of paper, straw and nitro compounds.
- DO NOT use aluminum for transport and storage if there is a risk of contact with water

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Specific end uses

Please check the identified uses in table 1 of the Appendix of this SDS. For more information please see the relevant exposure scenario, available via your supplier/given in the Appendix, and check section 2;

8 EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure controls

To control potential exposures, generation of dust should be avoided. Further, appropriate protective equipment is recommended. Eye protection equipment (e.g. goggles or visors) must be worn, unless potential contact with the eye can be excluded by the nature and type of application (i.e. closed process). Additionally, face protection, protective clothing and safety shoes are required to be worn as appropriate. Please check the relevant exposure scenario, given in the Appendix/available via your supplier.

Appropriate engineering controls

Handling systems should preferably be enclosed, or suitable ventilation installed to maintain atmospheric dust below the OES, if not wear suitable protective equipment.

Individual protection measures, such as personal protective equipment

- **Eye/face protection:** Do not wear contact lenses. For powders, tight fitting goggles with side shields, or wide vision full goggles. It is also advisable to have individual pocket eyewash.
- **Skin protection:** Use approved nitrile impregnated gloves having CE marks. Use clothing fully covering skin, full length pants, long sleeved overalls, with close fittings at openings. Footwear resistant to caustics and avoiding dust penetration.
- **Respiratory protection:** Local ventilation to keep levels below established threshold values is recommended. A suitable particle filter mask is recommended, depending on the expected exposure levels - please check the relevant exposure scenario, given in the Appendix/available via your supplier.
- **Thermal hazards:** The substance does not represent a thermal hazard; thus special consideration is not required.

Environmental exposure controls

All ventilation systems should be filtered before discharge to atmosphere. Contain the spillage. Keep the material dry if possible. Cover area if possible to avoid unnecessary dust hazard. Avoid uncontrolled spills to watercourses and drains (pH rising). Any large spillage into watercourses must be alerted to the Environment Agency or other regulatory body. For more information please see the relevant exposure scenario, available via your supplier/given in the Appendix, and check section 2.1: Control of worker exposure.

9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Color: white, off-white, beige Form: granules
Odor	odorless
Odor threshold	Not applicable
pH at 20 °C (saturated solutions)	12.4
Melting point	Temperature: > 450 °C
Boiling point	Not applicable
Flash point	Not applicable
Evaporation rate	Not applicable
Flammability	The product is not flammable

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Explosive properties	Not explosive
Vapor pressure	Not applicable
Vapour density	Not applicable
Water solubility	1.884,9 g/l; Temperature: 20 °C
Partition coefficient: n-octanol/water	Not applicable
Viscosity	Not applicable
Other information	
Bulk density	1.200 – 1.300 kg/m ³ Temperature: 20 °C

10 STABILITY AND REACTIVITY**Reactivity**

Reacts violently in contact with acids.

Chemical stability

under normal conditions of use and storage (dry conditions), the product is stable.

Possibility of hazardous reactions

The product reacts exothermically with acids.

Product can react with water and generates heat.

Conditions to avoid

Minimize exposure to air and moisture to avoid degradation.

Incompatible materials

The product reacts exothermically with acids to form salts.

Hazardous decomposition products

None

11 TOXICOLOGICAL INFORMATION**Acute toxicity**

Oral LD50 > 2000 mg/kg bw (OECD 425, rat)
Dermal LD50 > 2500 mg/kg bw (OECD 402, rabbit)
Inhalation no data available

Classification for acute toxicity is not warranted.

Irritation

Skin: irritating (rabbit)

Eye: irritating (rabbit)

Sensitization

No data available.

The product is considered not to be a skin sensitizer, based on the nature of the effect (pH shift) and the essential requirement of calcium and magnesium for human nutrition. Classification for sensitization is not warranted.

Repeated dose toxicity

Toxicity of calcium via the oral route is addressed by upper intake levels (UL) for adults determined by the Scientific Committee on Food (SCF), being UL = 2500 mg/d, corresponding to 36 mg/kg bw/d (70 kg person) for calcium.

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Toxicity of the product via the dermal route is not considered as relevant in view of the anticipated insignificant absorption through skin and due to local irritation as the primary health effect (pH shift). Toxicity of the product via inhalation (local effect, irritation of mucous membranes) is addressed by an 8-h TWA determined by the Scientific Committee on Occupational Exposure Limits (SCOEL) of 1 mg/m³ respirable dust (see section 8). Therefore, classification of the product for toxicity upon prolonged exposure is not required.

Carcinogenicity

Calcium (administered as Ca-lactate) is not carcinogenic (experimental result, rat). The pH effect of the product does not give rise to a carcinogenic risk. Human epidemiological data support lack of any carcinogenic potential of the product. Classification for carcinogenicity is not warranted.

Mutagenicity

Bacterial reverse mutation assay (Ames test, OECD 471): Negative

Mammalian chromosome aberration test: Negative

In view of the omnipresence and essentiality of Ca and of the physiological non-relevance of any pH shift induced by the product in aqueous media, the product is obviously void of any genotoxic potential, including germ cell mutagenicity.

Classification for genotoxicity is not warranted.

Toxicity for reproduction

Calcium (administered as Ca-carbonate) is not toxic to reproduction (experimental result, mouse). The pH effect does not give rise to a reproductive risk.

Human epidemiological data support lack of any potential for reproductive toxicity of the product. Both in animal studies and human clinical studies on various calcium salts no reproductive or developmental effects were detected. Also see the Scientific Committee on Food (Section 16.6). Thus, the product is not toxic for reproduction and/or development. Classification for reproductive toxicity according to regulation (EC) 1272/2008 is not required.

12	ECOLOGICAL INFORMATION
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Toxicity

Toxicity to fish

LC50 (96h) for freshwater fish: 50.6 mg/l (calcium dihydroxide)

LC50 (96h) for marine water fish: 457 mg/l (calcium dihydroxide)

Toxicity to aquatic invertebrates

EC50 (48h) for freshwater invertebrates: 49.1 mg/l (calcium dihydroxide)

LC50 (96h) for marine water invertebrates: 158 mg/l (calcium dihydroxide)

Chronic toxicity to aquatic plants

EC50 (72h) for freshwater algae: 184.57 mg/l (calcium dihydroxide)

NOEC (72h) for freshwater algae: 48 mg/l (calcium dihydroxide)

Toxicity to microorganisms / Toxicity to bacteria

At high concentration, through the rise of pH, the product is used for disinfection of sewage sludge.

Toxicity to daphnia and other aquatic invertebrates

NOEC (14d) for marine water invertebrates: 32mg/l (calcium dihydroxide)

Toxicity to soil dwelling organisms

EC10/LC10 or NOEC for soil macroorganisms: 2000 mg/kg soil dw (calcium dihydroxide) EC10/LC10

or NOEC for soil microorganisms: 12000 mg/kg soil dw (calcium dihydroxide)

Toxicity to terrestrial plants

NOEC (21d) for terrestrial plants: 1080 mg/kg (calcium dihydroxide)

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Acute pH-effect. Although this product is useful to correct water acidity, an excess of more than 1 g/l may be harmful to aquatic life. pH-value of > 12 will rapidly decrease as result of dilution and carbonation.

Other information

None

Persistence and degradability

Not relevant for inorganic substances.

Bioaccumulative potential

Not relevant for inorganic substances.

Mobility in soil

Calcium dihydroxide, which is sparingly soluble, presents a low mobility in most soils.

Results of PBT and vPvB assessment

Not relevant for inorganic substances.

Other adverse effects

No other adverse effects are identified.

13	DISPOSAL CONSIDERATIONS
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Waste treatment methods

Disposal of the product should be in accordance with local and national legislation. Processing, use or contamination of this product may change the waste management options. Dispose of container and unused contents in accordance with applicable member state and local requirements. The used packaging is only meant for packing this product; it should not be reused for other purposes.

14	TRANSPORT INFORMATION
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The product is not classified as hazardous for transport (ADR (Road), RID (Rail), IMDG / GGVSea (Sea)).

UN number

Not regulated

UN proper shipping name

Not regulated

Transport hazard class(es)

Not regulated

Packing group

Not regulated

Environmental hazards

None.

Special precautions for user

Avoid any release of dust during transportation, by using air-tight tanks.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not regulated

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15 REGULATORY INFORMATION

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

Authorizations	not required
Other regulations (European Union)	The product is not a SEVESO substance, not an ozone depleting substance and not a persistent organic pollutant.
National regulatory information	slightly water endangering (WGK 1)

16 OTHER INFORMATION

- This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product feature and shall not establish a legally valid contractual relationship.
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