

Material Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



31402 Lithium Waterglass

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Revised edition: 14.10.2015

Version: 2

Printed: 23.02.2016

1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1. Product Identifier

Product Name: Lithium Waterglass

Article No.: 31402

1.2. Relevant identified Uses of the Substance or Mixture and Uses advised against

Identified uses:

Inorganic binding agent, adhesive for industrial applications.

Uses advised against:

1.3. Details of the Supplier of the Safety Data Sheet (Producer/Importer)

Company: Kremer Pigmente GmbH & Co. KG

Address: Hauptstr. 41-47, 88317 Aichstetten, Germany

Tel./Fax.: Tel +49 7565 914480, Fax +49 7565 1606

Internet: www.kremer-pigmente.de

E-Mail: info@kremer-pigmente.de

Importer: --

1.4. Emergency No.

Emergency No.: +49 7565 914480 (Mon-Fri 8:00 - 17:00)

2. Hazards Identification

2.1. Classification of the Substance or Mixture

Classification according to EC Regulation 1272/2008

H314 Skin corrosion, category 1B
Cat.: 1B
H318 Serious eye damage, hazard category 1
Cat.: 1
Causes severe skin burns and eye damage.
Causes serious eye damage.

Classification according to EC Regulation No. 67/548 or No. 1999/45

Irritating (Xi) R36 Irritating to eyes.
Irritating (Xi) R38 Irritating to skin.

Safety Phrases:

Possible Environmental Effects:

See Section 12.

2.2. Label Elements

Classification according to EC Regulation 1272/2008

Hazard designation:

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Signal word:

Danger

Hazard designation:

H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

Safety designation:

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
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 victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses and continue rinsing.
P501 Dispose of contents/ container according to regional, national and international regulations.

Hazardous components for labelling:

Lithium hydroxide

2.3. Other Hazards

3. Composition/Information on Ingredients

3.1. Substance

3.2. Mixture

Chemical Characterization: Water based, silicate containing binder on the basis of lithium salts. Mixture

Hazardous Ingredients:

Lithium hydroxide (C, Xn; R22-R34; H302-314); REACH Reg. No. 01-2119560576-31	2.5 - 10 %	CAS-Nr: 1310-65-2 EINECS-Nr: 215-183-4 EC-Nr:
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Additional information:

Ionic mixture according to Annex V (REACH).

4. First Aid Measures

4.1. Description of the First Aid Measures

General information:

Remove contaminated clothes.

After inhalation:

No special measures required.

After skin contact:

Wash off with plenty of water. Consult a physician if irritation persists.

After eye contact:

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Rinse open eyes with plenty of water. In case of discomfort seek medical help.

After ingestion:

*Rinse mouth with water and drink plenty of water.
Immediately get medical help.*

4.2. Most important Symptoms and Effects, both Acute and Delayed

Symptoms:

No further information available.

Effects:

No further information available.

4.3. Indication of any Immediate Medical Attention and special Treatment needed

Treatment:

No further information available.

5. Fire-Fighting Measures

5.1. Extinguishing Media

Suitable extinguishing media:

*Product itself does not burn.
Use extinguishing media for surrounding fire.*

Unsuitable extinguishing media:

5.2. Special Hazards arising from the Substance or Mixture

Special hazards:

No information available.

5.3. Advice for Firefighters

Protective equipment:

No special measures required.

Further information:

6. Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal precautions:

Floor may be slippery; use care to avoid falling.

6.2. Environmental Precautions

Environmental precautions:

Prevent contamination of soils, drains and surface water.

6.3. Methods and Material for Containment and Cleaning Up

Methods and material:

Contain with absorbent material (e.g. sand, acid binder, universal binder, sawdust) and collect in appropriate containers for disposal.

6.4. Reference to other Sections

*Protective clothing, see Section 8.
See Section 13 for information on disposal.*

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7. Handling and Storage

7.1. Precautions for Safe Handling

Instructions on safe handling:

No special measures necessary if properly handled.

Hygienic measures:

Keep away from foodstuffs and drinks.

7.2. Conditions for Safe Storage, including any Incompatibilities

Storage conditions:

Protect from frost.

Do not store together with acids.

Requirements for storage areas and containers:

Unsuitable container material: light metal.

Suitable container material: steel or stainless steel.

Unsuitable container material: aluminum, zinc.

Unsuitable container material: glass, ceramic.

Information on fire and explosion protection:

No special measures necessary.

Storage class (VCI):

12; Non-combustible liquids

Further Information:

Do not store together with: acids.

Shelf-life: 6 months.

7.3. Specific End Use(s)

Further information:

No information available.

8. Exposure Controls/Personal Protection

8.1. Parameters to be Controlled

Parameters to be controlled (DE):

The product does not contain any relevant amounts of substances with critical values that require monitoring at the workplace.

Parameters to be controlled:

Derived No-Effect Level (DNEL):

No values available.

Predicted No-Effect Concentration (PNEC):

No values available.

Additional Information:

8.2. Exposure Controls

Technical protective measures:

No further measures, see Section 7.

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Personal Protection

General protective measures:

Keep away from foodstuffs and drinks. Do not eat, drink or smoke during work. Wash hands before breaks and at the end of work. Avoid contact with eyes and skin. Remove contaminated clothing immediately.

Respiratory protection:

Not required.

Hand protection:

Protective gloves which are alkali-resistant.

Protective glove material:

Natural rubber with a low percentage of chloroprene rubber. Recommended: Protective index 6, > 480 min. of permeation time accord. EN 374. Please note the manufacturers' detailed statements, especially about the minimum thickness and the minimum breakthrough time.

Eye protection:

Safety glasses with protective shields (EN 166).

Body protection:

Protective clothing, alkali-resistant.

Environmental precautions:

9. Physical and Chemical Properties

9.1. Information on Basic Physical and Chemical Properties

Form:	liquid
Color:	opaque
Odor:	odorless
Odor threshold:	No information available.
pH-Value:	ca. 10.9 (20°C)
Melting temperature:	not determined
Boiling temperature:	> 100°C
Flash point:	not applicable
Evaporation rate:	not applicable
Flammability (solid, gas):	not applicable
Upper explosion limit:	no information available
Lower explosion limit:	

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no information available

Vapor pressure:

not determined

Vapor density:

No information available.

Density:

ca. 1.26 g/cm³ (20°C)

Solubility in water:

completely miscible

Coefficient of variation (n-Octanol/Water):

not determined

Auto-ignition temperature:

Product is not auto-ignitable.

Decomposition temperature:

No data available.

Viscosity, dynamic:

ca. 20 mPa.s (20°C)

Explosive properties:

Product does not present an explosion hazard.

Oxidizing properties:

no information available

Bulk density:

not applicable

9.2. Further Information

Solubility in solvents:

Viscosity, kinematic

Burning class:

Solvent content:

Solid content:

Particle size:

Other information:

No further information.

10. Stability and Reactivity

10.1. Reactivity

Stable if used according to specifications.

10.2. Chemical Stability

Stable if used according to specifications.

10.3. Possibility of Hazardous Reactions

Reactions with light metals in presence with humidity under development of hydrogen.

Exothermic reaction with acids.

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10.4. Conditions to Avoid

Conditions to avoid:

No further information available.

Thermal decomposition:

No data available.

10.5. Incompatible Materials

No information available.

10.6. Hazardous Decomposition Products

None known.

10.7. Further Information

11. Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity

LD50, oral:

Lithium hydroxide (1310-65-2): > 210 mg/kg (rat)

Sodium hydroxide (1310-73-2): 325 mg/kg (rat)

LD50, dermal:

No information available.

LC50, inhalation:

No information available.

Primary effects

Irritant effect on skin:

Causes skin and mucous membrane irritation (OECD 404)

Irritant effect on eyes:

Strong irritant with the danger of severe eye injury (rabbit).

Inhalation:

No information available.

Ingestion:

No information available

Sensitization:

Not known.

Mutagenicity:

No data available.

Reproductive toxicity:

No information available.

Carcinogenicity:

No data available.

Teratogenicity:

No information available.

Specific target organ toxicity (STOT):

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No data available.

Additional toxicological information:

Caustic.

12. Ecological Information

12.1. Aquatic Toxicity

Fish toxicity:

Lithium hydroxide: LC50: 62.21 mg/l (96h, Danio rerio)

Sodium hydroxide: LC50: 145 mg/l (24h, Guppy); LC50: 125 mg/l (96h, Gambusia affinis)

Daphnia toxicity:

Lithium hydroxide: EC50: 19.1 mg/l (48h, Daphnia magna)

Sodium hydroxide: EC50: 76 mg/l (24h; Daphnia magna)

Bacteria toxicity:

Lithium hydroxide: EC10: 79.2 mg/l (3h, active sludge)

Algae toxicity:

Lithium hydroxide: EC50: 1.88 mg/l (72h)

12.2. Persistency and Degradability

Can be eliminated from water by chemical flocculation.

Inorganic substance. Biological degradability is not affected.

12.3. Bioaccumulation

No information available.

12.4. Mobility

No information available.

12.5. Results of PBT- und vPvP Assessment

Not applicable.

12.6. Other Adverse Effects

Water hazard class:

Do not let product contaminate ground water, waterways or sewage system.

Behaviour in sewage systems:

The product is an alkaline solution.

Product should be neutralized before discarding to sewage system.

Further ecological effects:

Do not let product enter waterways or sewage system.

AOX Value:

13. Disposal Considerations

13.1. Waste Treatment Methods

Product:

After neutralisation and solidification the product can be taken to a waste disposal site.

European Waste Code (EWC):

The waste code is determined according to the kind of waste and next page.

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industry stated in the European Waste Catalogue.

Uncleaned packaging:

Dispose of according to official local regulations.

Suggested cleaning agent: water. Detergent can be added if necessary.

Waste Code No.:

14. Transport Information

14.1. UN Number

ADR, IMDG, IATA 1719

14.2. UN Proper Shipping Name

ADR/RID: ÄTZENDER ALKALISCHER FLÜSSIGER STOFF, N.A.G.
(Lithiumhydroxid, Natriumhydroxid)

IMDG/IATA: CAUSTIC ALKALI LIQUID, N.O.S. (Lithium hydroxide, Sodium hydroxide)

14.3. Transport Hazard Classes

ADR Class: 8

Hazard no.: 8

Classification code: C5

Tunnel no.: E

IMDG Class (sea): 8

Hazard no.: 8

EmS No.: F-A, S-B

IATA Class: 8

Hazard no.: 8

14.4. Packaging Group

ADR/RID: II

IMDG: II

IATA: II

14.5. Environmental Hazards

None

14.6. Special Precautions for User

Warning: corrosive substances

14.7. Transportation in Bulk according to Annex II of MARPOL 73/78 and IBC-Code

not applicable

14.8. Further Information

15. Regulatory Information

15.1. Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

Water hazard class:

1, slightly hazardous for water

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Local regulations on chemical accidents:

Employment restrictions:

Restriction and prohibition of application:

Technical instructions on air quality:

15.2. Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

15.3. Further Information

EINECS (EU), TSCA (USA), AICS (AUS), DSL (CA), PICCS (PH), ENCS (JP), KECI (KR), IECSC (CN), NECI (TW), HSNO (NZ)

16. Other Information

This product should be stored, handled and used in accordance with good hygiene practices and in conformity with any legal regulations. This information contained herein is based on the present state of knowledge and is intended to describe our product from the point of view of safety requirements. It should be therefore not be construed as guaranteeing specific properties.