

# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/01/2014

Reviewed on 01/31/2014

## 1 Identification

- **Product identifier**
- **Trade name:** Calcium Oxide, Reagent Grade
- **Article number:** C0890
- **CAS Number:**  
1305-78-8
- **EC number:**  
215-138-9
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Aqua Solutions, Inc.  
6913 Highway 225  
DEER PARK, TX 77536  
USA  
800-256-2586
- **Information department:**  
Product safety department  
Technical Coordinator  
Sherman Nelson sherman@aquasolutions.org
- **Emergency telephone number:**  
Chemtrec: 800-424-9300  
Canutec: 613-996-6666



## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS05 Corrosion

Skin Corr. 1C H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

- **Label elements**

- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS05

- **Signal word** Danger

- **Hazard statements**

Causes severe skin burns and eye damage.

- **Precautionary statements**

Do not breathe dusts or mists.

Wear eye protection / face protection.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Immediately call a poison center/doctor.

Specific treatment (see on this label).

Store locked up.

(Contd. on page 2)

USA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/01/2014

Reviewed on 01/31/2014

Trade name: Calcium Oxide, Reagent Grade

(Contd. of page 1)

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 3

Fire = 0

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

## 3 Composition/information on ingredients

· **Chemical characterization: Substances**

· **CAS No. Description**

1305-78-8 Calcium Oxide

· **Identification number(s)**

· **EC number:** 215-138-9

## 4 First-aid measures

· **Description of first aid measures**

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Generally the product does not irritate the skin.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:** If symptoms persist consult doctor.

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

## 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **Special hazards arising from the substance or mixture** No further relevant information available.

· **Advice for firefighters**

· **Protective equipment:** No special measures required.

## 6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures** Not required.

· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/01/2014

Reviewed on 01/31/2014

Trade name: Calcium Oxide, Reagent Grade

(Contd. of page 2)

- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Precautions for safe handling** Prevent formation of dust.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

### 1305-78-8 Calcium Oxide

PEL	Long-term value: 5 mg/m <sup>3</sup>
REL	Long-term value: 2 mg/m <sup>3</sup>
TLV	Long-term value: 2 mg/m <sup>3</sup>

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes.
- **Breathing equipment:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/01/2014

Reviewed on 01/31/2014

Trade name: Calcium Oxide, Reagent Grade

(Contd. of page 3)

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

**Form:** Powder

**Color:** White

- **Odor:** Odorless

- **Odour threshold:** Not determined.

- **pH-value:** Not applicable.

- **Change in condition**

**Melting point/Melting range:** 2614 °C (4737 °F)

**Boiling point/Boiling range:** 3570 °C (6458 °F)

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Product is not flammable.

- **Ignition temperature:**

**Decomposition temperature:** Not determined.

- **Auto igniting:** Not determined.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**

**Lower:** Not determined.

**Upper:** Not determined.

- **Vapor pressure at 20 °C (68 °F):** 0 hPa

- **Density at 20 °C (68 °F):** 3.37 g/cm<sup>3</sup> (28.123 lbs/gal)

- **Relative density** Not determined.

- **Vapour density** Not applicable.

- **Evaporation rate** Not applicable.

- **Solubility in / Miscibility with**

**Water:** Insoluble.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

**Dynamic:** Not applicable.

**Kinematic:** Not applicable.

(Contd. on page 5)

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 12/01/2014

Reviewed on 01/31/2014

Trade name: Calcium Oxide, Reagent Grade

(Contd. of page 4)

· **Other information**

No further relevant information available.

### 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)** Substance is not listed.
- **NTP (National Toxicology Program)** Substance is not listed.
- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (Assessment by list): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

(Contd. on page 6)

USA

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 12/01/2014

Reviewed on 01/31/2014

**Trade name:** Calcium Oxide, Reagent Grade

(Contd. of page 5)

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

· <b>UN-Number</b>	
· <b>DOT, IMDG, IATA</b>	UN1910
· <b>UN proper shipping name</b>	
· <b>DOT, IMDG, IATA</b>	Calcium oxide
· <b>Transport hazard class(es)</b>	
· <b>DOT, IMDG, IATA</b>	
· <b>Class</b>	8 Corrosive substances
· <b>Packing group</b>	
· <b>DOT, IMDG, IATA</b>	III
· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>Special precautions for user</b>	Warning: Corrosive substances
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>DOT</b>	
· <b>Quantity limitations</b>	On passenger aircraft/rail: 25 kg On cargo aircraft only: 100 kg
· <b>IMDG</b>	
· <b>Excepted quantities (EQ)</b>	Code: -
· <b>UN "Model Regulation":</b>	UN1910, Calcium oxide, 8, III

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
- **Section 355 (extremely hazardous substances):** Substance is not listed.
- **Section 313 (Specific toxic chemical listings):** Substance is not listed.
- **TSCA (Toxic Substances Control Act):** Substance is listed.
- **Proposition 65**
- **Chemicals known to cause cancer:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
- **Chemicals known to cause developmental toxicity:** Substance is not listed.
- **Carcinogenic categories**
- **EPA (Environmental Protection Agency)** Substance is not listed.
- **TLV (Threshold Limit Value established by ACGIH)** Substance is not listed.
- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.
- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 7)

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 12/01/2014

Reviewed on 01/31/2014

Trade name: Calcium Oxide, Reagent Grade

(Contd. of page 6)

· **Hazard pictograms**

GHS05

· **Signal word** *Danger*· **Hazard statements***Causes severe skin burns and eye damage.*· **Precautionary statements***Do not breathe dusts or mists.**Wear eye protection / face protection.**IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.**If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**Immediately call a poison center/doctor.**Specific treatment (see on this label).**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.*· **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

## 16 Other information

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

· **Department issuing SDS:** *Environment protection department.*· **Contact:** *Mr. Nelson*· **Date of preparation / last revision***Creation date for SDS 12-01-2014. STN**12/01/2014 / -*· **Abbreviations and acronyms:***ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**DOT: US Department of Transportation**IATA: International Air Transport Association**ACGIH: American Conference of Governmental Industrial Hygienists**EINECS: European Inventory of Existing Commercial Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**Skin Corr. 1C: Skin corrosion/irritation, Hazard Category 1C**Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1*