

Category 1A

Category 11



1. Product and Company Identification

Manufacturer : Euclid Chemical Company

Address : 19218 Redwood Road, Cleveland, Ohio 44110

Telephone : 216.531.9222

Emergency Phone : 800.424.9300 (Chemtrec)

Product Code : 088 50

Product Use : Cement, Portland, chemicals.

Restrictions : Not known.

2. Hazards Identification/Exposure Limits

Hazard Classification

Health hazards

Acute toxicity (inhalation - dust and mist) Category 4 Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 1 Skin sensitizer Category 1

Carcinogenicity Specific target organ toxicity -

Single exposure Category 31

Specific target organ toxicity -

Repeated exposure

Target Organs

- 1. Respiratory tract irritation
- 2. Luna

Unknown toxicity - Health Acute toxicity, oral 91.31%

Acute toxicity, dermal 94.62%

Acute toxicity, inhalation, vapor 100%

Acute toxicity, inhalation, dust or mist

96.92%

Label elements

Hazard pictograms:







Signal word: Danger

Hazard statements:

Harmful if inhaled. Causes skin irritation.

Causes serious eve damage. May cause an allergic skin reaction. May cause cancer. May cause respiratory irritation. Causes damage to organs through prolonged or repeated exposure.

Precautionary statements:

Prevention:

Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water forseveral minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of water/D If skin irritation or rash occurs: Get medical advice/attention. Immediately call a POISON CENTER/doctor/D Specific treatment (see this label). Wash contaminated clothing before reuse.

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2. Hazards Identification/Exposure Limits (cont.)

Storage:

Store locked up in a cool well ventilated place. Keep container tightly closed.

Disposal:

Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal

Other hazards which do not result in GHS classification: None.

3. Composition/Information On Ingredients

Mixtures:

| Chemical Identity | CAS Number | Content in percent (%)* |
|---|------------|-------------------------|
| Crystalline Silica (Quartz)/Silica Sand | 14808-60-7 | 50 - <100% |
| Portland cement | 65997-15-1 | 20 - <50% |
| Calcium salt | 7778-18-9 | 1 - <5% |
| ** | ** | 1 - <5% |
| Amorphous silica | 7631-86-9 | 1 - <5% |

^{*} All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Trade secret information: ** A specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First Aid Procedures

Description of first aid measures

General:

After inhalation: Move to fresh air.

After skin contact: Get medical attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.

After eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.

After ingestion: Call a POISON CENTER/doctor/medical professional if you feel unwell. Rinse mouth.

Information for doctor:

Most important symptoms and effects, both acute and delayed:

Symptoms: Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. Extreme irritation of eyes and mucous membranes, including burning and tearing. Respiratory tract irritation.

Indication of any immediate medical attention and special treatment needed:

Treatment: Symptoms may be delayed.

5. Firefighting Measures

General fire hazards: No unusual fire or explosion hazards noted.

Extinguishing media:

Suitable extinguishing agents: Use fire-extinguishing media appropriate for surrounding materials. **Unsuitable extinguishing agents:** Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture: During fire, gases hazardous to health may be formed.

Advice for firefighters:

Firefighting procedures: No data available.

Protective equipment: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

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6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

General measures: See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up: Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

7. Handling and Storage

Handling:

Precautions for safe handling: Ventilate well, avoid breathing vapors. Use approved respirator if air contamina tion is above accepted level. Use mechanical ventilation in case of handling which causes formation of dust. Wash hands thoroughly after handling. Do not handle until all safety precautions have been read and under stood. Obtain special instructions before use. Use personal protective equipment as required. Do not get in eyes. Avoid contact with skin. Avoid contact with eyes, skin, and clothing.

Storage

Conditions for safe storage, including any incompatibilities: Store locked up.

8. Exposure Controls/Personal Protection

Control parameters

Occupational exposure limits

| Chemical Identity | Туре | Exposure Limit Values | Source |
|--|-----------|---|--|
| Crystalline Silica (Quartz)/Silica Sand - Respirable fraction. | TWA | 0.025 mg/m³ | U.S. ACGIH Threshold Limit Values (2011) |
| Crystalline Silica (Quartz)/ Silica Sand - Respirable. | TWA | 2.4 millions of particles per cubic foot of air | U.S. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| | TWA | 0.1 mg/m³ | U.S. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| Crystalline Silica (Quartz)/ Silica Sand - Respirable dust. | TWA | 0.5 mg/m ³ | US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (03 2016) |
| | OSHA_AC T | 0.025 mg/m ³ | US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (03 2016) |
| Crystalline Silica (Quartz)/ Silica Sand - Respirable dust. | PEL | 0.05 mg/m³ | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03 2016) |
| Portland cement - Respirable fraction. | TWA | 1 mg/m³ | US. ACGIH Threshold Limit Values (2011) |
| Portland cement - Total dust. | PEL | 15 mg/m³ | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Portland cement - Respirable fraction. | PEL | 5 mg/m³ | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |





8. Exposure Controls/Personal Protection (cont.)

| Chemical Identity | Туре | Exposure Limit Values | Source |
|---|--------|---|---|
| Portland cement | TWA | 50 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| Calcium salt - Respirable. | REL | 5 mg/m³ | Respirable. US. NIOSH: Pocket Guide to Chemical Hazards (2010) |
| Calcium salt - Total dust. | TWA | 15 mg/m³ | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989) |
| Calcium salt - Respirable fraction. | TWA | 5 mg/m³ | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989) |
| Calcium salt - Total dust. | TWA | 15 mg/m³ | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008) |
| Calcium salt - Respirable fraction. | TWA | 5 mg/m³ | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008) |
| Calcium salt | AN ESL | 5 ug/m³ | US. Texas. Effects Screening Levels (Texas Commission on Environmen- tal Quality) (03 2014) |
| | ST ESL | 50 ug/m³ | US. Texas. Effects Screening Levels (Texas Commission on Environmen- tal Quality) (03 2014) |
| Calcium salt - Inhalable fraction. | TWA | 10 mg/m³ | US. ACGIH Threshold Limit Values (2011) |
| Calcium salt - Total dust. | PEL | 15 mg/m³ | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Calcium salt - Respirable fraction. | PEL | 5 mg/m³ | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Amorphous silica | TWA | 20 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| | TWA | 0.8 mg/m³ | US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction. | TWA | 0.025 mg/m ³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction. | TWA | 0.10 mg/m³ | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015) |
| Crystalline Silica (Quartz)/ Silica Sand - Respirable dust. | TWA | 0.1 mg/m³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |





8. Exposure Controls/Personal Protection

| Chemical Identity | Туре | Exposure Limit Values | Source |
|--|------|-----------------------|---|
| Portland cement - Total dust. | TWA | 10 mg/m³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Portland cement - Respirable fraction. | TWA | 3 mg/m³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Portland cement - Respirable fraction. | TWA | 1 mg/m³ | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015) |
| Portland cement - Total dust. | TWA | 10 mg/m³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| Portland cement - Respirable dust. | TWA | 5 mg/m³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| Calcium salt | TWA | 10 mg/m³ | Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009) |
| Calcium salt - Inhalable | TWA | 10 mg/m³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Calcium salt - Inhalable fraction. | TWA | 10 mg/m³ | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Calcium salt - Total dust. | TWA | 10 mg/m³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| Calcium salt - Respirable dust. | TWA | 5 mg/m³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| Amorphous silica - Total | TWA | 4 mg/m³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Amorphous silica - Respirable. | TWA | 1.5 mg/m³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Amorphous silica - Respirable dust. | TWA | 6 mg/m³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |





8. Exposure Controls/Personal Protection (cont.)

Exposure controls:

Appropriate engineering controls: Mechanical ventilation or local exhaust ventilation may be required. Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of dust

Individual protection measures, such as personal protective equipment

General Information: Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Eye/face protection: Wear a full-face respirator, if needed. Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection: Use suitable protective gloves if risk of skin contact.

Other: Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures: Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Do not get in eyes. Wash contaminated clothing before reuse. Avoid contact with skin. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and Chemical Properties

Information on basic physical and chemical properties:

Explosive limits: Appearance: Lower: No data available. Physical state: Solid. No data available. **Upper:** Form: Powder. **Color:** Gray. No data available. Vapor pressure: Odor: Odorless. Vapor density: No data available.

Odor threshold: No data available. Relative density 3.45

pH-level: No data available. **Solubility:** Miscible with water.

Change in condition Partition coefficient

Melting point: No data available. (n-octanol/water): No data available. Freezing point: No data available. No data available. **Auto-ignition temperature: Boiling point:** No data available. No data available. **Decomposition temperature:** No data available. Flash point: **Viscosity:** No data available. **Evaporation rate:** No data available. Less than 700 g/l. **VOC** content: Flammability (solid, gas): No.

10. Stability/Reactivity

Reactivity: No data available.

Chemical stability: Material is stable under normal conditions.

Possibility of hazardous reactions: No data available. Conditions to avoid: Avoid heat or contamination. Incompatible materials: No data available.

Hazardous decomposition products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

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11. Toxicological Information

Information on likely routes of exposure:

Inhalation: In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus

membranes.

Skin contact: May be harmful in contact with skin. Causes skin irritation. May cause an allergic

skin reaction.

Eye contact: Causes serious eye damage. **Ingestion:** May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics:

Inhalation:No data available.Skin contact:No data available.Eye contact:No data available.Ingestion:No data available.

Information on toxicological effects:

Acute toxicity (list all possible routes of exposure)

Oral product: ATEmix: 2,399.26 mg/kg
Dermal product: ATEmix: 2,000.04 mg/kg
Inhalation product: ATEmix: 1.9 mg/l

Repeated dose toxicity

Product: No data available.

Irritation/Corrosion:

On the skin:

On the eye:

Respiration or skin sensitization:

Carcinogenicity:

No data available.

No data available.

No data available.

IARC monographs on the evaluation of carcinogenic risks to humans:

Crystalline silica

(Quartz)/ silica sand: Overall evaluation: Carcinogenic to humans.

U.S. National Toxicology Program (NTP) report on carcinogens:

Crystalline silica (quartz)/

Silica sand: Known To Be Human Carcinogen.

U.S. OSHA Specifically Regulated

Substances (29 CFR 1910.1001-1050): Cancer.

Germ cell mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific target organ toxicity -

Single exposure:Repeated exposure:
No data available.
No data available.

Target Organs





11. Toxicological Information (cont.)

Specific Target Organ Toxicity - Single Exposure: Respiratory tract irritation.

Specific Target Organ Toxicity - Repeated Exposure: Lung

Aspiration hazard

Product: No data available.

Other effects: No data available.

12. Ecological Information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish product: No data available.

Aquatic invertebrates

Product: No data available.

Chronic hazards to the aquatic environment:

Fish product: No data available.

Aquatic invertebrates

Product: No data available.

Toxicity to aquatic plants

Product: No data available.

Persistence and degradability:

Biodegradation

Product: No data available.

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration factor (BCF)

product: No data available.

Partition coefficient n-octanol/

water (log kow) product:No data available.Mobility in soil:No data available.Other adverse effects:No data available.

13. Waste Disposal Information

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated packaging: No data available.

14. Transporation Information

TDG: Not regulated. CRF/DOT: Not regulated. IMDG: Not regulated.

15. Regulatory Information

U.S. Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.





15. Regulatory Information (cont.)

U.S. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Chemical Identity

Crystalline silica (Quartz)/Silica Sand OSHA hazard(s)

kidney effects lung effects

immune system effects

Cancer

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate (Acute) Health Hazards Delayed (Chronic) Health Hazard

Acute toxicity

Skin Corrosion/Irritation

Serious Eye Damage/Eye Irritation

Skin sensitizer

Carcinogenicity

Specific Target Organ Toxicity - Single Exposure Specific Target Organ Toxicity - Repeated Exposure

U.S. State Regulations

U.S. California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

Crystalline Silica (Quartz)/ Carcinogenic. 09 2011

Silica Sand

U.S. New Jersey Worker and Community Right-to-

Know Act

Chemical Identity

Crystalline silica (quartz)/silica sand

Portland cement

Calcium salt

Amorphous silica

U.S. Massachusetts RTK - Substance List

Chemical Identity

Crystalline silica (quartz)/silica sand

Portland cement

Calcium salt

Amorphous silica

U.S. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Crystalline silica (quartz)/silica sand

Portland cement Calcium salt

Amorphous silica

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

None present or none present in regulated quantities.

SARA 311/312 Hazardous Chemical

Chemical Identity Threshold Planning Quantity

Crystalline silica

(Quartz)/silica sand10,000 lbs.Portland cement10,000 lbs.Calcium salt10,000 lbs.Trade secret10,000 lbs.Amorphous silica10,000 lbs.

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

U.S. Rhode Island RTK

Chemical Identity

Crystalline silica (quartz)/silica sand

Portland cement

International regulations

Montreal protocol

not applicable

Stockholm convention

not applicable

Rotterdam convention

not applicable

Kyoto protocol

not applicable

VOC:

Regulatory VOC (less water and exempt solvent): 0 g/l

VOC Method 310: 0.00 %

Inventory Status:

Australia AICS: All components in this product

are listed on or exempt from the

Inventory.

Canada DSL

Inventory List: All components in this

product are listed on or exempt

from the Inventory.





15. Regulatory Information (cont.)

Korea Existing Chemicals

EINECS, ELINCS

or NLP: One or more components

in this product are not listed on **Philippines PICCS:** One or more components in this

or exempt from the Inventory.

One or more components in this product are not listed on or exempt from the Inventory.

Japan (ENCS) List:

One or more components in this product are not listed on or

U.S. TSCA Inventory:

All components in this product

exempt from the Inventory.

are listed on or exempt from the

China Inv. Existing Chemical Inventory.

Substances: All components in this product New Zealand Inventory of

are listed on or exempt from the **Chemicals:**All components in this product are listed on or

exempt from the Inventory.

Inv. (KECI): All components in this product Japan ISHL Listing: One or more components in this

are listed on or exempt from the product are not listed on or exempt from the Inventory.

Canada NDSL Japan Pharmacopoeia

or exempt from the Inventory.

Inventory:

One or more components in this product are not listed on in this product are not listed on or product are not listed or produc

product are not listed on or exempt from the Inventory.

16. Other Information

Further Information: No data available.

Disclaimer: For industrial use only. Keep out of reach of children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.