

Section 1. Product and Company Identification

Product Name Crystalline Silica
CAS Number 14808-60-7

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CHEMTEL
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Collect Calls Accepted

Section 2. Hazards Identification

Classification of the substance or mixture

GHS Classification

Carcinogenicity, Category 1A

GHS Label Elements

Pictograms:



Signal word: DANGER

Hazard and precautionary statements

Hazard Statements

H350i: May cause cancer by inhalation.

Precautionary Statements

Prevention

P261: Avoid breathing dust.

P281: Use personal protective equipment as required.

Emergency Overview

Physical state: Solid

Color: Black

Odor: No odor

OSHA Hazards: Carcinogen



Section 3. Composition / Information on Ingredients

Common Name Crystalline Silica
Synonym(s) Silicon Dioxide
Formula Mixture
CAS Number 14808-60-7

COMPONENT	CAS NUMBER	CONCENTRATION
Crystalline Silica	14808-60-7	0.1 - 1% wt.

Section 4. First Aid Measures

General advice: Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Do not leave the victim unattended.

Inhalation: If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.

Eye contact: Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

Ingestion: If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel. Keep respiratory tract clear. Never give anything by mouth to an unconscious person.

Section 5. Firefighting Measures

Flash point: Not applicable

Auto-ignition temperature: Not applicable

Unsuitable extinguishing media: High volume water jet.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Further information: Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Fire and explosion protection: Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.

Hazardous decomposition products: Carbon oxides. Sulfur oxides.

Section 6. Accidental Release Measures

Personal precautions: Use personal protective equipment. Avoid dust formation. Avoid breathing dust.

Environmental precautions: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up: Keep in suitable, closed containers for disposal.



Section 7. Handling and Storage

Handling

Advice on safe handling: Avoid formation of respirable particles. Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion: Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.

Storage

Requirements for storage areas and containers: Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations/working materials must comply with the technological safety standards.

Section 8. Exposure Controls / Personal Protection

Ingredients with workplace control parameters

US

Ingredients	Basis	Value	Control Parameters	Note
Crystalline Silica	ACGIH	TWA	0.025 mg/m ³	A2, Respirable Fraction
	OSHA Z3	TWA	30 mg/m ³ /% SiO ₂ +2	Total Dust
	OSHA Z3	TWA	250 mppcf/% SiO ₂ +5	a, b, respirable
	OSHA Z3	TWA	10 mg/m ³ /% SiO ₂ +2	e, respirable
	OSHA Z1-A	TWA	0.1 mg/m ³	Respirable Fraction
	OSHA Z3	TWA	0.1 mg/m ³	Respirable Fraction

a: Millions of particles per cubic foot of air, based on impinger samples counted by light-field techniques

A2: Suspected human carcinogen

b: The percentage of crystalline silica in the formula is the amount determined from airborne samples, except in those instances in which other methods have been shown to be applicable.

e: Both concentration and percent quartz for the application of this limit are to be determined from the fraction passing a size-selector with the following characteristics: Aerodynamic diameter (unit density sphere): 2; Percent passing selector: 90 Aerodynamic diameter (unit density sphere): 2,5; Percent passing selector: 75 Aerodynamic diameter (unit density sphere): 3,5; Percent passing selector: 50 Aerodynamic diameter (unit density sphere): 5,0; Percent passing selector: 25 Aerodynamic diameter (unit density sphere): 10; Percent passing selector: 0 The measurements under this note refer to the use of an AEC (now NRC) instrument. The respirable fraction of coal dust is determined with an MRE; the figure corresponding to that of 2.4 mg/m³ in the table for coal dust is 4.5 mg/m³.



Immediately Dangerous to Life or Health Concentrations (IDLH)

Substance Name	CAS Number	Control Parameters	Update
Crystalline Silica	14808-60-7	Immediately Dangerous to Life or Health Concentration Value 50 milligram per cubic meter	1995-03-01

Engineering measures

Adequate ventilation to control airborne concentrations below the exposure guidelines/limits. Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

Personal protective equipment

Respiratory protection: Wear a supplied-air NIOSH approved respirator unless ventilation or other engineering controls are adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure. Wear a NIOSH approved respirator that provides protection when working with this material if exposure to harmful levels of airborne material may occur, such as: Air-Purifying Respirator for Dusts and Mists/P100. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.

Hand protection: The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection: Eye wash bottle with pure water. Tightly fitting safety goggles.

Skin and body protection: Choose body protection according to the amount and concentration of the dangerous substance at the work place. Wear as appropriate: Protective suit. Safety shoes.

Hygiene measures: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

Section 9. Physical and Chemical Properties

Appearance: Solid

Color: Black

Odor: No odor

Flash point: Not applicable

Lower explosion limit: No data available

Upper explosion limit: No data available

Oxidizing properties: No
Auto-ignition temperature: Not applicable
Molecular formula: Mixture
Molecular Weight: No data available
pH: Not applicable
Pour point: Not applicable
Boiling point/boiling range: Not applicable
Vapor pressure: Not applicable
Relative density: 1.2 - 1.5
Water solubility: Partly soluble
Partition coefficient (n-octanol/water): No data available
Viscosity, kinematic: Not applicable
Relative vapor density: Not applicable
Evaporation rate: Not applicable

Section 10. Stability and Reactivity

Chemical stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Possibility of hazardous reactions

Conditions to avoid: Not applicable.

Other data: No decomposition if stored and applied as directed

Section 11. Toxicological Information

Carcinogenicity

IARC

Group 1: Carcinogenic to humans
Crystalline Silica (14808-60-7)

NTP

Known to be human carcinogen

ACGIH

Suspected human carcinogen
Crystalline Silica (14808-60-7)

Further information: Chronic Health Hazard

Section 12. Ecological Information

Elimination information (persistence and degradability)

Biodegradability: This material is not expected to be readily biodegradable.

Additional ecological information: This material is not expected to be harmful to aquatic organisms



Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).

Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the MSDS and the bill of lading.

US DOT (United States Department Of Transportation)

Not regulated as a hazardous material or dangerous goods for transportation by this agency.

IMO/IMDG (International Maritime Dangerous Goods)

Not regulated as a hazardous material or dangerous goods for transportation by this agency.

IATA (International Air Transport Association)

Not regulated as a hazardous material or dangerous goods for transportation by this agency.

ADR (Agreement on Dangerous Goods by Road (Europe))

Not regulated as a hazardous material or dangerous goods for transportation by this agency.

RID (Regulations Concerning the International Transport of Dangerous Goods (Europe))

Not regulated as a hazardous material or dangerous goods for transportation by this agency.

ADN (European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways)

Not regulated as a hazardous material or dangerous goods for transportation by this agency.

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

Section 15. Regulatory Information

National legislation

SARA 311/312 Hazards: Chronic Health Hazard

EPCRA - Emergency Planning Community Right - To - Know



SARA 302 Threshold Planning Quantity

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Ingredients

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

Ozone-Depletion Potential: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

US State Regulations

Pennsylvania Right to Know

Crystalline Silica (CAS# 14808-60-7)

New Jersey Right to Know

Crystalline Silica (CAS# 14808-60-7)

California Prop. 65 Ingredients

WARNING! This product contains a chemical known in the State of California to cause cancer.

Notification status

Europe REACH: On the inventory, or in compliance with the inventory

United States of America TSCA: On the inventory, or in compliance with the inventory

Canada DSL: On the inventory, or in compliance with the inventory

Australia AICS: On the inventory, or in compliance with the inventory

New Zealand NZIoC: On the inventory, or in compliance with the inventory

Japan ENCS: On the inventory, or in compliance with the inventory

Korea KECl: On the inventory, or in compliance with the inventory

Philippines PICCS: On the inventory, or in compliance with the inventory

China IECSC: On the inventory, or in compliance with the inventory



NFPA Classification

Health: 1

Flammability: 1

Reactivity: 0

Section 16. Other Information

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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