Mallinckrodt

Material Safety Data

Emergency Phone Number: 314-982-5000

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Mallinckrodt, Inc., Science Products Division, P.O. Box M, Paris, KY 43061.

SAND, WASHED AND DRIED

PRODUCT IDENTIFICATION:

Synonyms: Agate; onyx; quartz; silica; crystalline-quartz

Formula CAS No.: 14808-60-7

Molecular Weight: 60.08

Chemical Formula: SiO_2

Hazardous Ingredients: Not Applicable

PRECAUTIONARY MEASURES

CHRONIC INHALATION HAZARD.
Avoid prolonged or repeated inhalation of dust.

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

EMERGENCY/FIRST AID

SEE SECTION 5.

DOT Hazard Class: Not Regulated

SECTION 1 Physical Data

Appearance: Fine, off-white granules.

Odor: Odorless.

Solubility: Insoluble in water.

Boiling Point: 2230°C (4046°F)

Melting Point: 1600°C (2912°F)

Specific Gravity: 2.6

Vapor Density (Air=1): No information found.

Vapor Pressure (mm Hg): 10 mm Hg @ 1732°C

Evaporation Rate: Not Applicable

SECTION 2 Fire and Explosion Information

Fire:
Not considered to be a fire hazard.

Explosion:
Not considered to be an explosion hazard.

Fire Extinguishing Media:
Use any means suitable for extinguishing surrounding fire.

Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

SECTION 3 Reactivity Data

Stability:
Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:
Can change crystal structure to form tridymite or cristobalite at higher temperatures.

Hazardous Polymerization:
Will not occur.

Incompatibilities:
Strong alkalies, hydrofluoric acid, powerful oxidizers and fluorine containing compounds.

SECTION 4 Leak/Spill Disposal Information

Clean-up personnel may require respiratory protection from dust. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. Disposal: Whatever cannot be saved for reclamation may be delivered to an approved waste disposal facility.

Ensure compliance with local, state and federal regulations.

SECTION 5 Health Hazard Information

A. EXPOSURE / HEALTH EFFECTS

Inhalation:
Acute pneumoconiosis from overwhelming exposure to silica dust has occurred. Coughing and irritation of throat are early symptoms.

Ingestion:
No adverse health effects expected.

Skin Contact:
No adverse health effects expected.

Eye Contact:
May irritate the eyes with redness, pain.

Chronic Exposure:
Repeated or prolonged inhalation of the dust particles may cause silicosis. Symptoms may include a progressive dry cough, shortness of breath and decreased chest expansion. If not treated, the disease may progress with symptoms more severe.

Aggrevation of Pre-existing Conditions:
Inhalation may increase the progression of tuberculosis; susceptability is apparently not increased. Persons with impaired respiratory function may be more susceptible to the effects of this substance. Smoking can increase the risk of lung injury.

B. FIRST AID

Inhalation:
Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:
If large amounts were swallowed, get medical advice.

Skin Exposure:
Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Exposure:
Wash thoroughly with running water. Get medical advice if irritation develops.

C. TOXICITY DATA (RTECS, 1982)

No LD50/LC50 information found relating to normal routes of occupational exposure. Tumorigenic Data Cited.
Aquatic Toxicity Rating: TLm 96: over 1000 ppm

SECTION 6 Occupational Control Measures

Airborne Exposure Limits:
-OSHA Permissible Exposure Limit (PEL):
0.09 mg/m^3 (TWA) (respirable dust),
0.29 mg/m^3 (TWA) Total dust.
-ACGIH Threshold Limit Value (TLV):
0.1 mg/m^3 respirable dust (TWA)
(Notice of intended changes/1984-85)

Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators: (NIOSH Approved)
If the TLV is exceeded, a dust/mist respirator may be worn up to ten times the TLV. Consult respirator supplier for details.

Skin Protection:
Wear protective gloves and clean body-covering clothing.

Eye Protection:
Use chemical safety goggles. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

SECTION 7 Storage and Special Information

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage.

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