

POTENTIAL HEALTH EFFECTS (continued)

SIGNS AND SYMPTOMS: Scratching or physical damage to the eyes can cause irritation, redness, pain, tear formation, blurred vision, and light sensitivity. The most common symptom of complex kaolinosis is shortness of breath.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Long-term dust exposure may aggravate pre-existing respiratory disease.

CHRONIC: Long-term exposure to kaolin dust has caused fibrosis (kaolinosis) in experimental animals and workers. In the absence of crystalline silica, it appears that kaolin causes a relatively mild fibrosis which generally will not produce severe pulmonary disease. Kaolinosis can either be simple or complex in nature with complex kaolinosis being associated with respiratory changes and decreased ability of the lungs to provide oxygen.

The form of amorphous silica (glass) contained in this product is not expected to cause lung fibrosis.

TARGET ORGANS: Lungs

CARCINOGENICITY: NTP: No IARC: No OSHA: No

4. FIRST AID MEASURES

EYE: Flush eyes with lukewarm water for 15 minutes opening and closing eyelids to ensure adequate rinsing. If redness, irritation, pain, or tearing occurs, seek medical attention.

SKIN: Exposure not anticipated.

INHALATION: Immediate effects are not anticipated. If large amounts of dusts are inhaled, remove to fresh air. If breathing problems occur, a certified professional should administer oxygen or CPR if indicated. Seek immediate medical attention.

INGESTION: If substantial quantities are ingested, drink 4-8 ounces of fluid. As product absorbs moisture, large quantities may cause intestinal obstruction if not taken with fluid.

5. FIRE FIGHTING MEASURES		
FLAMMABLE PROPERTIES		
FLASH POINT:	Not Applicable	
FLAMMABLE LIMITS:	LEL: Not Applicable	UEL: Not Applicable
NFPA CLASSIFICATION:		
HEALTH: 0	FLAMMABILITY: 0	INSTABILITY: 0

EXTINGUISHING MEDIA: Any. Use media appropriate for surrounding fire.

FIRE AND EXPLOSION HAZARDS: Non-flammable, non-combustible. Product will not burn.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

5. FIRE FIGHTING MEASURES (continued)

FIRE FIGHTING INSTRUCTIONS: Firefighters should wear a NIOSH approved full-facepiece self-contained breathing apparatus (SCBA) operated in positive pressure mode and full turnout or bunker gear.

6. ACCIDENTAL RELEASE MEASURES

Isolate hazard area and deny entry to unauthorized and/or unprotected personnel. Do not walk through or otherwise scatter spilled material. Use a vacuum to remove small amounts of material. Gently scoop or shovel larger amounts into clean dry container for later recycle or disposal. Water mist may be added as necessary to control the level of airborne dusts. Wipe up or vacuum dust residue. Protective equipment for clean-up personnel depends on the level of exposure anticipated (See Section 8).

7. HANDLING AND STORAGE

Store in dry area in closed containers. Storage and work areas should be periodically cleaned to minimize dust accumulation. Avoid dust inhalation and promulgation. DO NOT use compressed air or dry sweeping to remove dust from work area. Dusts should be removed using an appropriately equipped vacuum. If an appropriate vacuum is unavailable, only wet-clean-up methods should be used (i.e. wet sweeping, misting, etc.). Moisture should be added as necessary to reduce exposure to airborne respirable dust.

Under dusty conditions, employees should wear coveralls or other suitable work clothing. Vacuum dusty clothing before removal.

Practice good housekeeping. Wash thoroughly after handling. Change contaminated clothing promptly. Do not reuse until laundered.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY: Under normal working conditions, below acceptable exposure guidelines, none is required. Appropriate respirator selection is dependent upon the magnitude of exposure and must be selected in accordance with 29 CFR 1910.134. For concentrations above the PEL but less than 10X the PEL, a NIOSH approved dust mist respirator should be worn. Appropriate respirator selection will be dependent upon the magnitude of exposure and should be selected in accordance with 29 CFR 1910.134.

SKIN: None required.

EYES: Safety-glasses with side shields or goggles to prevent dust and particles from entering the eye.

ENGINEERING CONTROLS: General ventilation used in combination with local exhaust and enclosed processes as necessary to control air contaminants to at or below acceptable exposure guidelines.

OTHER: None

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	White to grayish in color
ODOR:	Odorless
SOLUBILITY IN WATER:	Insoluble
SPECIFIC GRAVITY (H₂O = 1):	2.60
MELTING POINT:	+ 3000 °F (+1650 °C)
pH:	6.5-8
% VOLATILE	0
TYPES:	Available in custom sizes

10. STABILITY AND REACTIVITY

STABILITY: Stable

REACTIVITY/INCOMPATIBILITY: Silica is incompatible with strong oxidizers (i.e.: fluorine, oxygen difluoride, and chlorine trifluoride).

DECOMPOSITION PRODUCTS: None known.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

EYE: Particulate matter may cause physical injury to the eye.

SKIN: Skin irritation is not anticipated.

INHALATION: May cause minor transient respiratory irritation.

INGESTION: Kaolin dusts will absorb water if ingested. If water intake is sufficient, kaolin will tend to have a laxative effect. When water intake is not sufficient, intestinal obstruction may occur.

CHRONIC: While crystalline silica exposure appears to enhance the severity of kaolinitis, data indicates that kaolin has the ability to induce a fibrogenic response in the absence of crystalline silica. Kaolinitis exists in both simple and complicated forms. More complicated forms of kaolinitis are more often associated with respiratory symptoms and changes.

SUBCHRONIC: No Data

OTHER: No Data

12. ECOLOGICAL INFORMATION

Mulcoa 47 NC is a relatively inert material. It does not contain ozone depleting substances and is not expected to exert an ecotoxic effect or bioconcentrate in the food chain.

13. DISPOSAL CONSIDERATIONS

Dispose of according to applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

U.S. Department of Transportation (DOT): Not Classified

15. REGULATORY INFORMATION

CANADIAN WHMIS: D2B

EPCRA Section 302 (EHSs): This product does not contain ingredients subject to reporting requirements of 40 CFR Part 355, Appendices A and B (Extremely Hazardous Substances).

CERCLA, Section 304: This product does not contain ingredients subject to state and local reporting under Section 304 of SARA Title III as listed in 40 CFR Part 302, Table 302.4

SARA 313 REPORTING REQUIREMENTS: This product does not contain ingredients subject to the reporting requirements of Section 313 SARA, and Section 6607 of the Pollution Prevention Act:

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and by definition meets the requirements of the following category:
Chronic Health Hazard

TSCA (Toxic Substances Control Act): All ingredients contained in this product are on the TSCA inventory.

16. OTHER INFORMATION

Revision Date: 5/7/98 added TSCA information.
10/3/00 reissued with no changes.
8/27/01 updated new area code for manufacturing facility.
8/15/03 Health and safety review and update

KEY:

ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service
(C): Ceiling Limit
DOT: Department of Transportation
IARC: International Agency for Research on Cancer
MSHA: Mine Safety and Health Administration
NFPA: National Fire Protection Association
NIOSH: National Institute for Occupational Safety and Health
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
SARA: Superfund Amendment and Reauthorization Act
TLV: Threshold Limit Value

DISCLAIMER

Although reasonable care has been taken in the preparation of the information contained herein, C-E Minerals extends no warranties, makes no representation and assumes no responsibility as to the accuracy of suitability of such information for application to purchaser's intended purposes or for consequences of its use.