

MATERIAL SAFETY DATA SHEET

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June 1, 2002

Group – Chlorite

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MEDICAL EMERGENCY INFORMATION
Contact: 1-303-623-5716 (24 hr.)
Rocky Mountain Poison Control Center

SECTION 1 – SUBSTANCE INFORMATION

SUBSTANCE: Chlorite **MOLECULAR FORMULA:** $3\text{MgO}\cdot 2\text{Al}_2\text{O}_3\cdot 3\text{SiO}_2\cdot \text{H}_2\text{O}$ **CHEMICAL FAMILY:** Silicate

PRODUCT NAMES: The data contained herein applies to Luzenac America products bearing the following names:

**SIERRALITE 252; SIERRALITE 252/252HS; SIERRALITE 252HS; SIERRALITE 402; SIERRALITE 402/402HS
SIERRALITE 402HS; SIERRALITE 504; SIERRALITE 603 (formerly SIERRASPERSE)**

SECTION 2 – COMPONENTS

MAJOR COMPONENT: Chlorite, CAS #1318-59-8 **CONCENTRATION:** ~96-100%

MINOR: Talc – a hydrous magnesium silicate; CAS #14807-96-6 0 - 2%
Magnesite – a magnesium carbonate; CAS #546-93-0 0 - 2%
Quartz, CAS – crystalline silica; CAS #14808-60-7 0 - 2%

SECTION 3 – EXPOSURE LIMITS

CHLORITE: 5 mg/m³ OSHA PEL TWA (respirable dust) and 10 mg/m³ ACGIH TLV TWA (inhalable particulates)

QUARTZ: 0.1 mg/m³ OSHA PEL TWA (respirable dust) and 0.1 mg/m³ ACGIH TLV TWA (respirable dust)

SECTION 4 – TOXICITY**CHLORITE**

Toxicity Data: No data available. Carcinogenic Status: No data available.

TALC

NIOSH Registry Number: WW2710000

SAX Toxicity Evaluation: THR: Not available

Carcinogenic Status:

IARC Cancer Review: Human Inadequate Evidence

NTP: Not listed (currently under review). A 2-year inhalation study demonstrated clear evidence of carcinogenic activity in female rats at exposure levels of 18 mg/m³. Some evidence of carcinogenic activity was observed in male rats at the same level. No evidence of carcinogenic activity was found in mice (NTP TR-421).

Tumorigenic Data:

TCLo: ihl-rat 11 mg/m³/1Y-I

TDLo: imp-rat 200 mg/kg

Other Toxicity Data:

Skin and Eye Irritation Data: skn-hmn 300 ug/3D-I MLD

MAGNESITE

Toxicity Data: No data available. Carcinogenic Status: No data available

QUARTZ

Toxicity Data: Tumorigenic data (RTECS). Carcinogenic Status: Human sufficient evidence, animal sufficient evidence
(Respirable quartz: IARC Group-1).

SECTION 5 – HEALTH EFFECTS AND FIRST AID**→ INHALATION****Chlorite/Talc/Magnesite Mixture**

ACUTE EXPOSURE: Exposure to a large concentration of air-born dust of this material may cause mechanical irritation of the mucous membranes and respiratory tract.

CHRONIC EXPOSURE: No data available on mixture. However, based upon similar minerals (talc) repeated or prolonged inhalation of air-born dust of this material may cause scarring of the lungs (pulmonary fibrosis), with shortness of breath, chronic cough, and respiratory assisted heart failure. Prolonged exposure to can produce a mild symptomatic pneumoconiosis.

Quartz

ACUTE EXPOSURE: Exposure to high concentrations of respirable crystalline silica may cause physical discomfort of the upper respirator tract.

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CHRONIC EXPOSURE: Inhalation of very high concentrations of finely divided respirable crystalline silica dust may cause a rapidly developing silicosis or cancer.

FIRST AID: Remove from exposure area to fresh air. If breathing has stopped, perform artificial respiration and get medical attention immediately. Keep person warm and at rest. Treat symptomatically and supportively.

→ SKIN CONTACT

ACUTE EXPOSURE: Direct contact may cause dryness, or may cause mild irritation if an allergic predisposition exists.

CHRONIC EXPOSURE: Prolonged contact may cause dryness of the skin, or may cause mild irritation if an allergic predisposition exists.

FIRST AID: Apply common skin moisturizers to relieve dryness. Irritations are uncommon; however, if irritation or redness develops, seek medical attention. Broken skin can be cleansed with mild soap and water.

→ EYE CONTACT

ACUTE EXPOSURE: Direct contact with dust may cause mechanical irritation of the eyes.

CHRONIC EXPOSURE: Repeated exposure may cause conjunctivae inflammation.

FIRST AID: Wash eyes with large amounts of water or normal saline solution. If irritation or redness develops, seek medical attention.

→ INGESTION

ACUTE EXPOSURE: No data available.

CHRONIC EXPOSURE: No data available.

FIRST AID: Treat symptomatically and supportively. If vomiting occurs, keep head lower than hips to prevent aspiration.

SECTION 6 – FIRE , EXPLOSION & REACTIVITY

FIRE AND EXPLOSION HAZARD: None

FIRE FIGHTING MEDIA: None

FLASH POINT: None

REACTIVITY: Stable

INCOMPATIBILITIES: None

DECOMPOSITION: None hazardous

SECTION 7 – PHYSICAL DATA

DESCRIPTION: Slight earthy odor, white to grayish-white, fine powder.

SPECIFIC GRAVITY: 2.7-2.8

DECOMPOSITION TEMPERATURE: 1022°-1832°F (550°-1000°C)

LOI @ 1000°C: 11-13%

SOLUBILITY IN WATER: Insoluble

pH: Slightly alkaline

HARDNESS: 2-3 MOHS

SECTION 8 – STORAGE, DISPOSAL & ENVIRONMENTAL

STORAGE: Preserve in sealed containers to prevent dispersion of dust in air.

WASTE DISPOSAL: Dry material can be land-filled. Observe all federal, state and local regulations. Responsibility for proper waste disposal is with the owner of the waste.

CONDITIONS TO AVOID: Prevent dispersion of dust in air.

ACCIDENTAL SPILLS: For large spills, shovel or sweep up (while keeping dispersion of dust in air to a minimum) and place into suitable sealed containers for reclamation or later disposal. Residue should be cleaned up using a high-efficiency particulate filter vacuum. The use of water wash-down is not recommended. Wet material can cause a surface used for walking to become extremely slippery.

SECTION 313 SUPPLIER NOTIFICATION: This product does not contain toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

RCRA: Chlorite is not considered a hazardous waste by RCRA criteria (40 CFR 261).

SECTION 9 - PROTECTIVE EQUIPMENT

VENTILATION: Provide local exhaust or process enclosure ventilation to meet published exposure limits.

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RESPIRATOR: The following maximum-use concentrations and respirators are recommendations by the U.S. Department of Health and Human Services; NIOSH Pocket Guide to Chemical Hazards; NIOSH criteria documents; or by the U.S. Department of Labor, 29 CFR 1910 subpart Z.

<u>Chlorite - Maximum-Use Concentration</u>		<u>Respirator</u>
10 mg/m ³		Any dust and mist respirator.
20 mg/m ³		Any dust and mist respirator except single-use and quarter-mask respirators.
<u>Quartz - Maximum-Use Concentration</u>		<u>Respirator</u>
0.25 mg/m ³		Any dust and mist respirator.
0.5 mg/m ³		Any dust and mist respirator except single-use and quarter-mask respirators.

GLOVES: Protective gloves are not required, but may be worn to prevent skin dryness or irritation due to skin allergy.

EYE PROTECTION: Employees should wear dust-resistant safety goggles to prevent eye contact with high concentrations of air-born dust of this substance. Where there is a possibility that an employee's eyes may be exposed to bulk quantities or high concentrations of air-born dust of this substance, the employer should provide an eye wash fountain within the immediate work area for emergency use.

SECTION 10 - ADDITIONAL INFORMATION

NPCA: National Paint and Coatings Association – Hazardous Material Identification System (HMIS)
HEALTH HAZARD: 1* - slight
FLAMMABILITY HAZARD: 0 – minimal
REACTIVITY HAZARD: 0 – minimal
PERSONAL PROTECTION: E – glasses, gloves, dust respirator

CERCLA RATINGS: (Scale 0-3) Health = 0, Fire = 0, Reactivity = 0, Persistence = 3

NFPA RATINGS: (Scale 0-4) Health = 0, Fire = 0, Reactivity = 0

DOT CLASS: These products are not regulated as hazardous materials by DOT.

EPA TSCA STATUS: All ingredients are included on the TSCA Inventory of Chemical Substances.

CEPA DSL STATUS: All ingredients are included on the Canadian Domestic Substance List.

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