

MATERIAL SAFETY DATA SHEET



1. Product and Company Identification

Material name CLOISITE® NA+
Version # 01
Revision date Jul-18-2008
Manufacturer information Southern Clay Products, Inc.
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Product Use Cloisite® products are used as plastics additives.

2. Hazards Identification

Emergency overview Material can be slippery when wet. Cancer hazard. Prolonged exposure may cause chronic effects.

Potential health effects

- Routes of exposure** Inhalation. Eye contact.
- Eyes** Dust or powder may irritate eye tissue. Avoid contact with eyes.
- Skin** Avoid contact with the skin.
- Inhalation** Inhalation of dusts may cause respiratory irritation. May cause cancer by inhalation. Avoid breathing dust/fume/gas/mist/vapors/spray. Repeated or prolonged inhalation may cause toxic effects. For additional information on inhalation hazards, see Section 11 of this safety data sheet.
- Ingestion** Do not ingest.

Chronic effects This product has the potential for generation of respirable dust during handling and use. Dust may contain respirable crystalline silica. Overexposure to dust may result in pneumoconiosis, a respiratory disease caused by inhalation of mineral dust, which can lead to fibrotic changes to the lung tissue, or silicosis, a respiratory disease caused by inhalation of silica dust, which can lead to inflammation and fibrosis of the lung tissue. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

3. Composition / Information on Ingredients

Hazardous components	CAS #	Percent
Quartz	14808-60-7	0.1 - 1
Non-hazardous components	CAS #	Percent
Bentonite	1302-78-9	99 - 100

4. First Aid Measures

First aid procedures

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if symptoms occur.

Skin contact Remove and isolate contaminated clothing and shoes. Wash off with warm water and soap. For minor skin contact, avoid spreading material on unaffected skin. Get medical attention if symptoms occur.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician if symptoms develop or persist.

Ingestion Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If ingestion of a large amount does occur, call a poison control center immediately.

5. Fire Fighting Measures

Flammable properties Not a fire hazard. The product is not flammable.

Extinguishing media

Suitable extinguishing media Water.

Protection of firefighters

Specific hazards arising from the chemical Material can be slippery when wet

Protective equipment and precautions for firefighters Use water spray to cool unopened containers. Cool containers with flooding quantities of water until well after fire is out.

Specific methods In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers.

6. Accidental Release Measures

Personal precautions Local authorities should be advised if significant spillages cannot be contained. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unnecessary personnel away. Stay upwind. Keep out of low areas. Avoid inhalation of dust from the spilled material. Wear a dust mask if dust is generated above exposure limits. Material can be slippery when wet.

Environmental precautions Do not flush into surface water. Do not let product enter drains. Prevent further leakage or spillage if safe to do so. Do not contaminate water.

Methods for containment Prevent entry into waterways, sewers, basements or confined areas. Avoid allowing water runoff to contact spilled material. If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Contaminated surfaces will be extremely slippery.

Methods for cleaning up Should not be released into the environment. Sweep up or gather material and place in appropriate container for disposal. Collect dust or particulates using a vacuum cleaner with a HEPA filter. Avoid dust formation. After removal flush contaminated area thoroughly with water.

7. Handling and Storage

Handling Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust from this material. Avoid contact with skin. Avoid contact with eyes. In case of insufficient ventilation, wear suitable respiratory equipment. Wear personal protective equipment. Avoid prolonged exposure. Wash thoroughly after handling. Avoid release to the environment. Handle and open container with care.

Storage Guard against dust accumulation of this material. Keep in a well-ventilated place. Keep container tightly closed. Keep out of the reach of children. Use care in handling/storage.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH

Components	Type	Value	Form
Quartz (14808-60-7)	TWA	0.025 mg/m ³	Respirable fraction.

Additional components

Additional components	Type	Value	Form
Nuisance Particulates (seq250)	TWA	3 mg/m ³	Respirable particles.
		10 mg/m ³	Inhalable particles.

U.S. - OSHA

Components	Type	Value	Form
Quartz (14808-60-7)	TWA	0.1 mg/m ³	Respirable dust.
		0.3 mg/m ³	Total dust.

Additional components

Additional components	Type	Value	Form
Nuisance Particulates (seq250)	PEL	5 mg/m ³	Respirable fraction.

Additional components	Type	Value	Form
	TWA	15 mg/m3	Total dust.
		15 mppcf	Respirable fraction.
		15 mg/m3	Total dust.
		5 mg/m3	Respirable fraction.
		50 mppcf	Total dust.

Exposure guidelines	Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.
Engineering controls	Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL, suitable respiratory protection must be worn.
Personal protective equipment	
Eye / face protection	Wear safety glasses with side shields.
Skin protection	Protective gloves.
Respiratory protection	Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.
General hygiene considerations	Do not breathe dust. Avoid contact with eyes. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Physical state	Solid.
Form	Powder.
Color	Off-white.
Odor	Odorless.
pH	9 , 2% aqueous dispersion
Melting point	Not available.
Freezing point	Not applicable
Boiling point	Not applicable
Flash point	Not applicable
Flammability limits in air, upper, % by volume	Not applicable
Flammability limits in air, lower, % by volume	Not applicable
Vapor pressure	Not available.
Vapor density	Not available.
Specific gravity	2.8 - 2.9
Relative density	Not available.
Solubility (water)	Not available.
Decomposition temperature	Not available.
Percent volatile	0 % estimated

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Incompatible materials	None known.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological Information

Chronic effects

Hazardous by OSHA criteria. Prolonged exposure may cause chronic effects. According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled. In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003)

Carcinogenicity

Hazardous by OSHA criteria. Cancer hazard. Risk of cancer cannot be excluded with prolonged exposure.

IARC Monographs on Occupational Exposures to Chemical Agents: Overall evaluation

Quartz (14808-60-7)

1 Human carcinogen.

US ACGIH Threshold Limit Values: A2 carcinogen

Quartz (14808-60-7)

Group A2 Suspected human carcinogen.

US NTP Report on Carcinogens: Known carcinogen

Quartz (14808-60-7)

Known carcinogen.

12. Ecological Information

Ecotoxicological data

Product

Test Results

CLOISITE® NA+

LC50 Fish: 19095 mg/l 96.00 Hours estimated

Components

Test Results

Bentonite (1302-78-9)

LC50 Rainbow trout, donaldson trout (*Oncorhynchus mykiss*):
19000 mg/l 96.00 Hours

* Estimates for product may be based on additional component data not shown.

Environmental effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

13. Disposal Considerations

Disposal instructions

Do not allow this material to drain into sewers/water supplies. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.

Waste from residues / unused products

Not applicable.

14. Transport Information

DOT

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA Hazardous Substances - Not applicable.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - No Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
Section 302 extremely hazardous substance	No
Section 311 hazardous chemical	Yes

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Quartz (14808-60-7) Listed.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Quartz (14808-60-7) Listed: October 1, 1988 Carcinogenic.

US - Massachusetts RTK - Substance List: Carcinogenic substance

Quartz (14808-60-7) Carcinogenic.

US - Massachusetts RTK - Substance List: Extraordinarily hazardous

Quartz (14808-60-7) Extraordinarily hazardous.

US - Massachusetts RTK - Substance: Listed substance

Quartz (14808-60-7) Listed.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

Quartz (14808-60-7) Listed.

16. Other Information

Recommended restrictions Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings
Health: 1*
Flammability: 0
Physical hazard: 0

NFPA ratings
Health: 1
Flammability: 0
Instability: 0

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