



FairmountSantrol

Safety Data Sheet

Date: October 27, 2014

Supersedes: October 28, 2009

Section 1: Product Identification

Trade Name as Labeled: Macrolite

Application: Ceramic filtration media

Chemical Name: Mixture, primarily Nepheline Syenite (consists largely of nepheline and alkali feldspars)

Manufacturer:

Emergency Phone Number:

Fairmount Water Solutions, Inc.
11833 Ravenna Road, P.O. Box 87
Chardon, OH 44024
Phone: (800) 281-9876

ChemTrec: (800) 424-9300

Website: www.FairmountSantrol.com

Section 2: Hazard Identification

Hazard Overview

Product is chemically inert, water-insoluble, non-combustible mineral consisting of free flowing spheres (particle size approximately 0.01-inch to ½-inch). High dust concentrations generated during handling may cause mechanical irritation to mucous membranes of the upper respiratory tract and eyes.

GHS Classification:

Product does not meet the criteria for hazard classification specified in 29 CFR 1910.1200 (OSHA Hazard Communication Standard).

Physical:

Not Classified

Health:

Not Classified

Environmental:

Not Classified

Signal Word and Pictogram:

Not required

Hazard Statements:

Not required

Precautionary Statements:

Not required

Acute Health Effects:

Inhalation: Inhalation of high concentrations of dust may cause mechanical irritation to upper respiratory tract.

Eye: Dusts may cause mechanical irritation to the eye. If eye is rubbed, scratching of cornea can occur.

Ingestion: Small diameter spheres (0.01-0.5 inch) represent a potential choking hazard. Ingestion of excessive amount of the product may cause gastrointestinal irritation, nausea, vomiting, and/or diarrhea.

Skin: Not absorbed or considered harmful to skin.

Chronic Health Effects:

No chronic health effects are known.

Section 3: Composition/Information on Ingredients

CAS Number	Component	% by Weight	GHS Classification
Nepheline Syenite	37244-96-5	85.0 - 95.0	Not classified
Aluminum Oxide	1344-28-1	1.0 - 15.0	Not classified
Bentonite	1302-78-9	3.0 - 5.0	Not classified
Silicon Carbide	409-21-2	1.0 - 3.0	Not classified

See Section 8 for occupational exposure limit information.

Section 4: First Aid Measures

Inhalation (Gross): Remove person to fresh air. Get medical attention if person feels unwell.

Ingestion: Small diameter spheres (0.01-0.5 inch) represent a potential choking hazard. If swallowed do not induce vomiting. Get medical attention.

Eye Contact: Immediately wash eyes with large amounts of water, lifting the upper and lower lids occasionally. If irritation persists or for imbedded foreign body, get medical attention.

Skin Contact: Wash with water and soap.

Section 5: Fire Fighting Measures

Extinguishing Media: This product is not combustible. Choose extinguishing media suitable for surrounding fire

Special Fire Fighting Procedures: None with respect to this product. Wear standard turnout gear and NIOSH-approved self-contained breathing apparatus (SCBA) with full facepiece in pressure demand or positive pressure demand mode.

Unusual Fire and Explosion Hazards: None known.

Hazardous Combustion Products: None known.

Section 6: Accidental Release Measures

Accidental Release: Use personal protective equipment recommended in Section 8.

Spilled material can create a slip hazard. Clean up using dustless methods (water or vacuum) to minimize generation and distribution of dust. Avoid using compressed air. Collect material in appropriate containers for recovery and recycling or disposal. Do not flush into surface water or sanitary sewer system.

Waste Disposal: See Section 12

Section 7: Handling and Storage

Handling: Handle the product in accordance with good industrial hygiene and safety practices. Avoid material handling methods that could damage the base material, which may lead to increased levels of dust formation. Provide appropriate exhaust ventilation at places where dust is formed. If the ventilation is not adequate, use respiratory protection (see Section 8).

Storage: Avoid breakage of bagged material or spills of bulk material

The OSHA Hazard Communication Standard 29 CFR §1910.1200 and state and local worker or community "Right to Know" laws and regulations should be strictly followed, which includes training employees on the content of this SDS. Warn your employees (and your customer users in case of resale) by posting and other means of the potential health risks associated with use of this product and train them in the appropriate personal protective equipment, work practices, and engineering controls, which will reduce their risk of exposure.

Section 8: Exposure Control/Personal Protection

Local Exhaust: Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels of dust. See ACGIH "*Industrial Ventilation, A Manual of Recommended Practice*" (latest edition).

Electrical equipment should be protected to the appropriate standard.

Eye Protection: Wear appropriate protective eyeglasses or chemical safety goggles where particles could cause injury to the eye as described by OSHA's eye and face protection regulations in 29 CFR §1910.133.

Skin Protection: Not normally necessary, but standard work gloves are suggested for people with sensitive skin. Keep open wounds appropriately covered and protected.

Respiratory Protection: Under normal working conditions, with dust levels below occupational exposure guidelines, respiratory protection is not required. When effective engineering controls are not feasible to control exposures to dust levels below the OSHA PEL (or other exposure limit), use the following table to assist in selecting respiratory protection. This table was obtained from the NIOSH Respirator Selection Logic (2004). Assigned protection factor (APF) is the minimum expected level of respiratory protection provided by a properly functioning respirator. Maximum use concentration (MUC) for a respirator is determined by multiplying a contaminant exposure limit by the protection factor assigned to the respirator. A respiratory protection program in accordance with OSHA Standard 29 CFR §1910.134 must be implemented whenever workplace conditions warrant use of a respirator. ANSI Standard Z88.2 (recent revision) "*American National Standard for Respiratory*

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Protection” also should be considered. All tight-fitting respirators must be fit-tested either qualitatively or quantitatively for each respirator user. Use only NIOSH-certified respirators.

Assigned Protection Factor	Type of Respirator (NIOSH-Certified Respirator)
10	Any air-purifying elastomeric half-mask respirator equipped with appropriate type of particulate filter. ¹ Appropriate filtering facepiece respirator. ^{1,2} Any air-purifying full facepiece respirator equipped with appropriate type of particulate filter. ¹ Any negative pressure (demand) supplied-air respirator equipped with a half-mask.
25	Any powered air-purifying respirator equipped with a hood or helmet and a high efficiency (HEPA) filter. Any continuous flow supplied-air respirator equipped with a hood or helmet.
50	Any air-purifying full facepiece respirator equipped with N-100, R-100, or P-100 filter(s). Any powered air-purifying respirator equipped with a tight-fitting facepiece (half or full facepiece) and a HEPA filter. Any negative pressure (demand) supplied-air respirator equipped with a full facepiece. Any continuous flow supplied-air respirator equipped with a tight-fitting facepiece (half or full facepiece). Any negative pressure (demand) self-contained respirator equipped with a full facepiece.
1000	Any pressure-demand supplied-air respirator equipped with a full facepiece.

¹ Appropriate means that the filter medium will provide protection against the particulate in question.
² APF of 10 can only be achieved if the respirator is qualitatively or quantitatively fit tested on individual workers.

Occupational Exposure Limits:

Chemical	Exposure Guidelines						Unit
	OSHA		NIOSH		ACGIH		
	TWA	STEL	TWA	STEL	TWA	STEL	
Nepheline Syenite	15T; 5R (PNOC)	N.E.	10T; 5R (PNOC)	N.E.	10T; 3R (PNOC)	N.E.	mg/m ³
Aluminum Oxide	15T; 5R (PNOC)	N.E.	10T; 5R (PNOC)	N.E.	1R	N.E.	mg/m ³
Bentonite	15T; 5R (PNOC)	N.E.	10T; 5R (PNOC)	N.E.	10T; 3R (PNOC)	N.E.	mg/m ³
Silicon Carbide	15T; 5R (PNOC)	N.E.	10T; 5R (PNOC)	N.E.	10I; 3R	N.E.	mg/m ³
N.E. = Not Established. PNOC = Particulates not otherwise regulated. R = respirable dust. T = total dust. I = Inhalable							
OSHA Permissible Exposure Limits (PEL) and ACGIH Threshold Limit Values (TLV) are an 8-hour time-weighted average (TWA) concentration during a 40-hour workweek. NIOSH Recommended Exposure Limits (REL) is for up to a 10-hour workday during a 40-hour workweek. STEL denotes a Short Term Exposure Limit, 15-minutes.							

Section 9: Physical and Chemical Properties

Appearance: Spheres (≈0.01-0.5 inch dia.); solid
Odor: Odorless
Solubility in Water: Insoluble
Auto Ignition Temp: Not known
Vapor Pressure: Not applicable
Lower/Upper Explosive Limit: Not applicable

Color: Taupe
pH: SL basic
Specific Gravity (water = 1): 0.4-2.6
Melting Point: Not known
Vapor Density: Not applicable
Percent Volatile: Not determined

Section 10: Stability and Reactivity

Stability: Stable under normal handling and storage conditions.

Hazardous Polymerization: Will not occur.

Chemical Incompatibility (Materials to Avoid): None known. (See Bretherick's *Handbook of Reactive Chemical Hazards* for details and for other incompatibilities.)

Hazardous Decomposition Products: None known.

Conditions to Avoid: None known.

Section 11: Toxicological Information

Macrolite:

Acute toxicity: No published data available.

Skin corrosion/irritation: No published data available.

Serious eye damage/eye irritation: No published data available.

Respiratory or skin sensitization: No published data available.

Germ cell mutagenicity: No published data available.

Carcinogenicity: No component of this product present at levels $\geq 0.1\%$ is listed by IARC, NTP, OSHA, NIOSH, EPA, or California Prop 65.

Reproductive Toxicity: No published data available.

Specific target organ toxicity – single exposure: No published data available.

Specific target organ toxicity – repeated exposure: No published data available.

Aluminum Oxide:

LD₅₀/intraperitoneal/rat >3,600 mg/kg

Silicon Carbide:

LD₅₀/oral/rat >2,000 mg/kg

Bentonite:

LD₅₀/intravenous/rat 35 mg/kg

Section 12: Ecological Information

Ecotoxicity:**Macrolite:**

Toxicity: No published data available.

Mobility: No published data available.

Bioaccumulation: No published data available.

Bentonite:

Toxicity: 96 hours - LC₅₀ - *Oncorhynchus mykiss* (rainbow trout): >19,000 mg/L

Section 13: Disposal Considerations

General: This product as sold does not create and physical or chemical concerns that affect disposal options.

Disposal of the material should be in accordance with applicable regional, national and local laws and regulations.

Local regulations may be more stringent than regional or national requirements.

RCRA: Nepheline Syenite nor any of the other listed components of this product are classified as hazardous wastes under the Resource Conservation and Recovery Act, or its regulations, 40 CFR §261 et seq.

The above applies to materials as sold by Fairmount Water Solutions, Inc. The material may be contaminated during use, and it is the responsibility of the user to assess the appropriate disposal of the used material.

Section 14: Transport Information

Nepheline Syenite nor any of the other listed components of this product are regulated for transportation under the U. S. Department of Transportation Table of Hazardous Materials, 49 CFR §172.101, Canadian TDG, IMDG, and IATA regulations.

Section 15: Regulatory Information

United States (Federal and State):

TSCA: Nepheline Syenite is listed on EPA's Toxic Substance Control Act (TSCA) Section 8(b) inventory.

RCRA: Macrolite nor any of its listed components are classified as hazardous wastes under the Resource Conservation and Recovery Act (RCRA), or its regulations, 40 CFR §261 et seq.

CERCLA Section 103 Reportable Quantity: None for Macrolite nor any of its listed components.

SARA 311/312 (Hazard Categories for Reporting): Nepheline Syenite and the other listed components
"Chronic Health Hazard."

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SARA 313: Aluminum oxide is subject to Annual Release Reporting Requirements under SARA Section 313 (40 CFR 372).

Clean Air Act: Nepheline Syenite nor any of the other listed components of this product were processed with or does not contain any Class I or Class II ozone depleting substances.

OSHA: Nepheline Syenite nor any of the other listed components of this product are identified as a toxic and hazardous substance.

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): Nepheline Syenite nor any of the other listed components of this product are classified as substances known to the State of California to be a carcinogen.

Canada:

Domestic Substances List, DSL: Nepheline Syenite and the other components of this product are listed.

WHMIS Classification: Nepheline Syenite nor any of the other listed components of this product are controlled a product.

Other:

IARC: Nepheline Syenite nor any of the other listed components of this product are identified as probable, possible or confirmed human carcinogen.

NTP: Nepheline Syenite nor any of the other listed components of this product are identified as a known or anticipated carcinogen.

National, state, provincial or local emergency planning, community right-to-know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

Section 16: Other Information

Web Sites with information about health effects from occupational exposure to the chemical substances contained in this product and associated engineering controls and personal protective equipment:

<http://www.osha.gov>

<http://www.cdc.gov/niosh>

Hazardous Material Identification System (HMIS) Classification

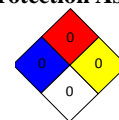
Health Hazard	0
Fire Hazard	0
Physical Hazard	0

HEALTH = 0. No significant health risk.

FIRE = 0. Material will not burn.

PHYSICAL HAZARD = 0. Materials that are normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react.

National Fire Protection Association (NFPA)



HEALTH = 0. Poses no health hazard.

FIRE = 0. Materials will not burn under typical fire conditions.

INSTABILITY = 0. Normally stable, even under fire exposure conditions, and are not reactive with water.

User's Responsibility: The OSHA Hazard Communication Standard 29 CFR 1910.1200 require that this Safety Data Sheet be made available to your employees who handle or may be exposed to this product. Educate and train your employees regarding applicable precautions. Instruct your employees to handle this product properly.

Disclaimer: The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for one's own particular use. Since the actual use of the product described herein is beyond our control, Fairmount Water Solutions, Inc. assumes no liability arising out of the use of the product by others. Appropriate warnings and safe handling procedures should be provided to handlers and users.

Microlite

This product does not meet the criteria for Hazard Classification under GHS

Product is chemically inert, water-insoluble, non-combustible mineral. High dust concentrations may cause mechanical irritation to upper respiratory tract and eyes.

PRECAUTIONARY STATEMENTS

Low hazard for usual handling of product.
Stable under normal handling and storage conditions.
Most people can handle this product with bare hands. Individuals with sensitive skin should wear standard work gloves.
Use methods to clean up spills that avoid creating airborne dust.
No specific disposal method is required. Collect material in appropriate containers for disposal or recycling.

FIRE

Product is not combustible.
Product is compatible with all standard extinguishing media.
NFPA Rating: Health: 0; Fire: 0; Reactivity: 0.

FIRST AID

Gross inhalation: Remove person to fresh air. Get medical attention if person feels unwell.
Ingestion: Size of ceramic spheres represent a potential choking hazard, get immediate medical attention.
Eye Contact: Flush eyes with large amounts of water. Get medical attention for imbedded particle or persistent irritation.
Skin Contact: Wash with soap and water; not considered harmful to skin.

For additional information, read **Safety Data Sheet** for product.

24-hour Emergency Phone Number
CHEMTREC® (800) 424-9300

Manufacturer:

Fairmount Water Solutions, Inc.
11833 Ravenna Road
P.O. Box 87
Chardon, OH 44024
Phone: (800) 281-9876
Website: www.FairmountSantrol.com

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