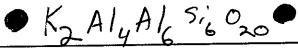
KINGS MOUNTAIN MICA

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Oglebay Norton Specialty Minerals

Issued: 07/31/2000 Replaces: 12/01/1999



1. PRODUCT IDENTIFICATION

Manufacturer:

Oglebay Norton Specialty Minerals

P.O. Box 729

Kings Mountain, NC 28086

704-739-3616 704-739-7888 fax

Synonyms:

(Silicate, Mica), Muscovite Mica, Micro Mica, Dry Ground Mica,

Emergency Phone:

Chemtrec

800-424-9300

Wet Ground Mica

Product Names:

Wet Ground Mica:

Dry Ground Mica:

Flake Mica: Micro Mica: H-360, HAR-160, HiMod-270, HiMod-360, S-360, WG-160, WG-325

1-K, 4-K, 4-KLE, 100-K, FS-255

20-K, (-125, L-135, L-140, F-120, F-260 C-500, C-1000, C-3000, C-4000, HiMod-450

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Formula:

Chemical Family:

C.A.S. No.:

Canadian Product ID No.:

Product Use:

KAL₂Si₃O₁₀(OH)₂•5H₂O

Silicate Minerals

12001-26-2 (Listed as Silicate, Mica)

None Listed

Industrial Manufacturing

3. HAZARD IDENTIFICATION

Labeled in accordance with OSHA'S Hazard Communication Rule and the HMIS Rating System developed by the National Paint and Coatings Association, 1500 Rhode Island Ave. N. W., Washington, D.C. 20005.

O.S.H.A./H.M.I.S. LABEL

HEALTH* = 0

FLAMMABILITY = 0

REACTIVITY = 0

PERSONAL PROTECTION EQUIPMENT= E*

No acute effects

Non-flammable

Non-reactive

Dust Mask

See Material Safety Data Sheet. Prolonged breathing of excessive dust may adversely affect lung function.

Use NIOSH approved dust mask for dusty conditions.

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KINGS MOUNTAIN, NC 28086

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4. FIRST AID MEASURES

Eves

Immediately flush the eyes with plenty of water for at least fifteen minutes. If irritation occurs or persists, obtain medical attention.

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If irritation occurs and persists, obtain medical attention.

5. FIRE FIGHTING MEASURES

National Fire Protection Code 704: Fire (Red) (0), Health (Blue) (0), Reactivity (yellow) (0)

Fire (Red) (0), He Non-combustible

Physical Hazard: Flammability in Air:

Not applicable

Flash Point:

Not applicable

Autoignition Temperature:

Not applicable

Any suitable for fire in surrounding area

Extinguishing Media:
Special Fire Fighting Procedure:

Not applicable

Explosion Data:

Non-explosive

Unusual Fire & Explosion Hazard:

None

Incompatibility:

None

Hazardous Combustion Products: Sensitivity to Mechanical Shock:

Not applicable Not applicable

Sensitivity to Static Discharge:

Not applicable

Conditions of Reactivity:

None

Hazardous Decomposition Products:

Not applicable

Conditions Contributing to Instability:

None

Conditions Contributing to Hazardous Polymerization:

Does not polymerize

6. ACCIDENTAL RELEASE MEASURES

None, A spill can be sprayed with water to suppress dust and then either washed away or shoveled into a suitable disposal container. (See 13. Disposal Consideration)

7. HANDLING AND STORAGE

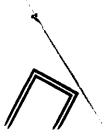
Do not breathe dust and avoid getting in eyes.

Keep container closed.

Use with adequate ventilation.

Drying and/or grinding may increase dusting hazards

Control dust levels in the work place.



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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protection Equipment:

Respiratory:

Wear a NIOSH/MSHA approved respirator when adequate ventilation

is not a available.

Eyes:

Safety glasses or goggles

Gloves:

None

Footwear: No special type indicated.

Clothing: Others:

No special type indicated.

None.

Ventilation Requirements:

Provide adequate ventilation to maintain below exposure limits

(Section III) for quartz and mica.

TI V Data

Ingredient Exposure Limits:

I LY Data							
<u>Material</u>	C.A.S. No.	<u>Wt. %</u>	<u>PEL</u> (OSHA)	<u>TWA</u> (ACGIH)	STEL (ACGIH)	Ceiling (OSHA)	<u>IDLH</u> (OSHA)
Mica	12001-26-2	95.0 to 99	.920 mppcf	3 mg/M ³ (1)	No applicat	as	
Quartz	14808-60-7	0.1 to 5.0	10 mg/M ³ ÷ (% Si02 +2) Re	0.1 mg/M ³ (1)	,		50 μg/M ³ (3) 10 hr TWA

- (1) Respirable Dust--See Threshold Limit Value and Biological Exposure Indices for 1991-1992, ACGIH
- (2) Respirable Quartz--See 29 CFR = 1910.1000 Table Z-1-A, Air Contaminants.
- (3) Respirable Free Silica

Ingredient Animal Test Data

LD50

LC50

Material

Canadian PIN

Species and Route Species and Route

Mica

None listed

No applicable information was found

Quartz

None listed

No applicable information was found

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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:

Solid

Vapor Density:

Not applicable (Air = 1)

Appearance and Odor:

Odorless white powder

Vapor Pressure:

Not applicable

Odor Threshold: Boiling Point:

Not applicable Not applicable

Melting Point:

Decomposes without melting near 1000°C (1832 °F)

Density/Specific Gravity

2.8 a/cc

pH (as is) @ 25°C: pH (1% Slurry) @ 25 °C: Not applicable Not applicable

Coefficient of Water/Oil Distribution:

Not applicable

10. STABILITY AND REACTIVITY

Stability:

Stable

Solubility in Water:

Insoluble (% by wt. @ 25 °C (77°F))

Volatiles:

Not applicable

Evaporation Rate:

Not applicable (Butyl Acetate = 1)

11. TOXICOLOGICAL INFORMATION

Product Health Hazard:

OSHA/IARC STATEMENT

This material contains crystalline silica. Some researchers have reported evidence that it is carcinogenic in humans following prolonged and repeated inhalation. Prolonged and repeated breathing of dust can cause silicosis.

Route (s) of Exposure:

Hazard

Product Tox Data and Reference

Eye Contact:

Inhalation:

This substance may irritate

No animal toxicology data available

the eyes.

Respirable particles of quartz

No animal LC50 toxicology data

are hazardous to inhale.

is available

Effects of Overexposure:

Acute Effects:

Possible irritation to the eyes.

Chronic Effects:

Respiratory irritant. Chronic lung damage, scar tissue development in

lungs can occur if inhaled over an extended period of time. Follow TLV exposure limits, Section III.

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11. TOXICOLOGICAL INFORMATION

Product Health Hazard:

Carcinogenicity:

OSHA/IARC STATEMENT

This material contains crystalline silica. Some researchers have reported evidence that it is carcinogenic in humans following prolonged and repeated inhalation. Prolonged and repeated breathing of dust can cause silicosis.

NTP Annual: Not listed.

IARC Monograph:

Crystalline silica is listed as a carcinogen to animals and there is limited

evidence for the carcinogenicity to humans, Group 1

OSHA 29 CFR Part 1910 Subpart Z:

Not listed

ACGIH (Appendix A):

Respiratory irritant per OSHA, ACGIH and NIOSH and Canadian

WHMIS

Sensitization:

Irritancy:

No information available

Teratogenicity:

No information available

Mutagenicity:

No information available

Toxicologically Synergistic Products:

No information available

Any Medical Conditions Generally Recognized as Being Aggravated by Exposure:

Prior existing lung or respiratory illness

12. ECOLOGICAL INFORMATION

Ecotoxicity

Not know to have negative effects on the environment.

13. DISPOSAL CONSIDERATION

Procedure for Release or Spill:

Wet with water to reduce dusting and collect in a suitable

container.

Waste Disposal Method:

Dispose of waste according to federal EPA state and local

regulations.

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14. TRANSPORTATION INFORMATION

Domestic:

DOT Proper Shipping Name:

Mica

DOT Classification:

None

DOT Labels:

Mica

DOT Marking:

None

DOT Placard:

None

UN Number:

None

Foreign:

IMCO Proper Shipping Name:

Mica

IMCO Hazard Classification:

None

IMCO Labels:

Mica

IMCO Marking:

None

49 STCC Number:

None

Emergency Accident:

Precautions and Procedures:

None

Precautions to be taken in Transportation: No special precautions

15. REGULARITY INFORMATION

USA:

TSCA:

As a naturally occurring substance, mica is automatically included in the

inventory under regulation 40 CFR 710.4, chapter 1, subsection b (7/1/86). See

EPA TSCA section 8 (e) Status Report 8EHQ-0986-0632. Also, see EPA

TSCA test submission (TSCATS) data base, September, 1993.

OSHA:

PEL 8H TWA 20 mppcf, respirable dust. FEREAC 54, 2923, 89

PEL Final 8H TWA 3 mg/m³ respirable dust. FEREAC 54, 2923, 89

NIOSH Criteria Documents:

Relative to silicates. (< 1% Crystalline Silica): Mica in air: 10H TWA 3 mg/m3

NIOSH DHHS #92-100, 92

NOHS 1974: Hazard 48535; NIS 135; TNF 12333; NOS

98; TNE 169296

NOHS 1983: Hazard X1564; NIS 2; TNF 9; NOS 3; TNE

296

ACGIH:

TLV-TWA 3 mg/m3, respirable dust. 85INA8 5, 413, 86

MSHA:

Air TWA 20 mppcf. DTLWS 3, 33, 73



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15. REGULARITY INFORMATION (Continued)

FDA Regulations: Mica is permitted in the following applications:	
Food additives by direct listing §182	2.99 (now EPA 40 CFR 180.1001)
Adhesives	§175.105.5
Resinous and Polymeric Coatings	§175.300.3
Rubber articles intended for repeated use.	
Components of paper and paperboard in contact with aqueous and fatty food	
Closures with sealing gaskets for food containers	§177,1210
Ethylene-vinyl acetate copolymers	§177.1350
Melamine-formaldehyde resins in molded articles by cross reference to ¤175.	
Components of paper and paperboard in contact with dry food by cross refere	ence to ¤176.170§176.180
Color additive in cosmetics	——————————————————————————————————————
Olefin polymers in contact with food	•
This regulation states that food contact articles may include substances that r	

CANADA:

Ontario 309 & Quebec--Class 1 Annexe III: Mica complies with the regulations. Mica is an inert product. No hazardous compound or ions leach from mica during normal processing.

WHMIS:

Hazard Classification

Class D, Division 2, Subdivision A

Disclosure List:

Mica and silica are both listed (1% each)

Domestic Substances List (DSL):

Mica is on this list

JAPAN:

Mica is not listed in the MITI index. Substances controlled by this law are substances obtained by the chemical reactions of an element or a chemical compound. Mica is therefore exempted from regulation by this

law.

<u>AUSTRALIA:</u>

Mica is listed in the ACOIN C.A.S. Registry number section as mica

group minerals, 12001-26-2. TWA 2.5 mg/m³

BELGIUM:

Mica TWA 3 mg/m³

THE NETHERLANDS:

Mica TWA 5 mg/m³

SWITZERLAND:

Mica TWA 3 mg/m³

UNITED KINGDOM:

Mica TWA 1 mg/m³ respirable dust; 10 mg/m³ total dust

BULGARIA, COLOMBIA, JORDAN, KOREA, NEW ZEALAND, SINGAPORE, VIET NAM:

TLV-TWA 3 mg/m³, respirable dust





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16. OTHER INFORMATION

none

The information contained in this Material Safety Data Sheet is believed to be reliable. No guarantee is implied or expressed regarding the accuracy of this information or the use of these mica products since the conditions for use are beyond our control. Nothing contained herein should be construed as a recommendation to use this product in conflict with existing patents covering any material or its use.

----End of MSDS----