FILE NAME: Orton (ORT)

DATE: 1981 Sept 2

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orton
The Edward Orton Jr. Ceramic Foundation

September 2, 1981

W. R. Grace & Co.
112 North Street
Wilder, KY 41071

Dear Sirs

We are required by Federal law to obtain Material Safety Data Sheets for all material we use in the manufacturing of our product, pyrometric cones.

We are currently using and purchasing from your organization Industrial #2 expanded vermiculite. Although this material does not go directly into our product, it is used as packaging material.

We would appreciate obtaining the above mentioned Material Safety Data Sheets from you along with any other data on Industrial #2 expanded vermiculite which may be valuable to us.

Yours very truly

Dale Fronk
Ceramic Engineer

mld

DAF COPY

GRACE

Construction Products Division

W.R. Grace & Co.
62 Whittemore Avenue
Cambridge, Mass. 02140

(617) 876-1400

September 25, 1981

Mr. Dale Fronk
Ceramic Engineer
ORTON
1445 Summit Street
P.O. Box 8309
Columbus, Ohio 43201

Dear Mr. Fronk:

This is in response to your recent request for a Material Safety Data Sheet for Industrial Vermiculite #2 which you have been using as packing material.

I am attaching a copy of our M.S.D.S. #Z-140, Industrial Vermiculite, Libby Source - Size #1, #2 & #3.

#3 Expanded Vermiculite is also marketed to consumers as Attic Insulation. When processed for this end-use, it is more intensively screened to remove fines (vermiculite dust and tremolite) and in some cases, it is treated with a binder to further reduce airborne dust when used. This further reduces the exposure of the user to airborne tremolite fiber. You may wish to purchase this to limit dust exposure. It is readily available at most building supply houses.

We have prepared the attached Material Safety Data Sheet in a form that is most meaningful to technically aware industrial end-users who will be aware of the responsibilities placed on them by OSHA Regulations.

It has been our experience, handling significant tonnages of expanded products in our own manufacturing plants, that good industrial hygiene practices will limit the airborne exposures of employees to extremely low levels.

If you require additional information, do not hesitate to contact me.

Very truly yours,

Diane O'Donnell

Diane O'Donnell
Technical Administrator

DOD/cm

Attachment

File: Expanded Vermiculite
Industrial End Use - M.S.D.S.

DATE: June 10, 1977 Occupational Safety and Health Administration

MSDS #Z-140

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME	EMERGENCY TELEPHONE NO.
W. R. Grace & Company	617-876-1400 X457
ADDRESS (Number, Street, City, State, and ZIP Code)	Quality Assurance Manager
62 Whittemore Avenue-Cambridge, MA 02140	
CHEMICAL NAME AND SYNONYMS: Expanded Libby, Montana Vermiculite	TRADE NAME AND SYNONYMS: Industrial Vermiculite-Size #1, #2, & #3
CHEMICAL FAMILY: Magnesium Aluminosilicate Mineral	FORMULA: $(Mg,Ca,K)-(Al,Fe,Mg)-(Si,Al)_4(O)_{10}(OH)_2 H_2O$

SECTION II - HAZARDOUS INGREDIENTS

Contains less than 0.1% by weight of a naturally occurring contaminant tremolite. OSHA Regulation 1910.1001 defines tremolite as asbestos. Some forms of tremolite are platy. Other forms can be fibrillated by physical handling to release airborne "asbestos fibers". Regulation 1910.1001 places a limit of 2 "asbestos fibers"/cc; 8 hour time weighted average and a maximum of 10 "asbestos fibers"/cc at any one time for airborne fiber exposure.

The physical handling given to expanded Vermiculite can release both airborne fibers and nuisance dust. Refer to OSHA Regulation 1910.1001 for approved control procedures.

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	NA	SPECIFIC GRAVITY (H_2O=1)	NA
VAPOR PRESSURE (mm Hg.)	NA	PERCENT, VOLATILE BY VOLUME (%)	NA
VAPOR DENSITY (AIR=1)	NA	EVAPORATION RATE (_____ =1)	NA
SOLUBILITY IN WATER	slight, if any	Bulk Density lbs/c.f.	5-7
APPEARANCE AND ODOR	Free flowing dark brown to tan colored particles.		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA NOT APPLICABLE

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel

EXTINGUISHING MEDIA

SPECIAL FIRE FIGHTING PROCEDURES

UNUSUAL FIRE AND EXPLOSION HAZARDS

 (Continued on reverse side) Form OSHA-20 Rev. May 72

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

Dust respirable fraction 5 mgm/M^3. Total dust 15 mgm/M^3.
Airborne asbestos fiber 2f/cc T.W.A.-Ceiling 10f/cc at one time.

EMERGENCY AND FIRST AID PROCEDURES

NA

SECTION VI - REACTIVITY DATA NOT APPLICABLE

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE		

INCOMPATABILITY *(Materials to avoid)*

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR		

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Dampen slightly or use other techniques which control airborne fibers and dust within the limits of Section V above.

WASTE DISPOSAL METHOD

Use disposal techniques which control airborne fibers and dust within the TLV limits of Section V above. See OSHA Standard 1910.1001. Paragraph (h) (2) Waste Disposal.

SECTION VIII - SPECIAL PROTECTION INFORMATION

See OSHA 1910.1001-Controls such as isolation, enclosure, exhaust ventilation and dust collection shall be used if necessary to meet exposure limits. Also see OSHA Standard 1910.1001 Personal Protective Equipment for dealing with work environments in excess of exposure limits.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

OTHER PRECAUTIONS