Vesuvius USA
495 Emma Street, Bettsville, Ohio 44815

Safety Data Sheet

85-RAM® TR PLASTIC	**SDS Number** SDS-30267 **Revision:** 2 **Legacy Number:** LEV10051

Preparation Information:

Site: All	Contact Deb Cook @ (419) 986-5126 for further product information or medical emergency during normal business hours.

Section 1: Product and Company Identification

Product Name:	**Chemical Name:**	**Formula:**	**CAS Number:**
85-RAM® TR PLASTIC	Mixture	N/A	N/A

Product Use:
Advanced Refractories

Supplier Information:

Supplier Name:	**Supplier Phone:**
Vesuvius USA	(419) 986-5126

Supplier Address:

495 Emma Street Bettsville, OH 44815

Manufacturer Information:

Manufacturer Name:	**Manufacturer Phone:**
Vesuvius USA	(419) 986-5126

Manufacturer Address:

495 Emma Street Bettsville, OH 44815

Emergency Contact Information:

CHEMTREC (800) 424-9300 (USA) CANUTEC (613) 996-6666 (CANADA)

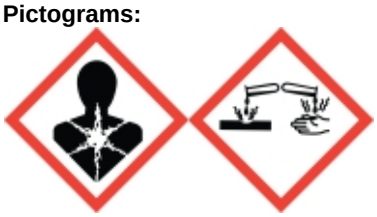
Section 2: Hazard(s) Identification

Hazard Classification:
Skin Corrosion/Irritation - Category 1C
Serious Eye Damage/Eye Irritation - Category 2
Carcinogenicity - Category 1A
Specific Target Organ Toxicity, Repeated or Prolonged Exposure - Category 1

Signal Word:
Danger

Hazard Statement(s):
Causes skin irritation/corrosion
Causes eye irritation
May cause respiratory irritation
May cause damage to lungs through prolonged or repeated exposure through inhalation, due to dust from cutting or tear-out.
May cause cancer, silicosis

Pictograms:



Precautionary Statement(s):

Prevention	Response	Storage	Disposal
Do not eat, drink, or smoke when using this product. Use only outdoors or in a well-ventilated area. Use personal protective equipment as required. Wash thoroughly after handling.	If eye irritation persists, remove contact lenses if necessary and rinse eyes with water. Seek medical attention if needed. If skin is irritated, wash with plenty of soap and water. Seek medical attention if needed. If breathing is difficult, remove victim to fresh air and keep at rest in comfortable position, seek medical advice/attention.	Product contains chemicals, which will upon exposure to moisture result in product consolidation. Store in a dry place.	Check with local, state and federal regulations.

Hazards not Otherwise Classified:
N/A

Percentage of the mixture consisting of ingredients of unknown toxicity:
N/A

Section 3: Composition/Information on Ingredients

Ingredient:	CAS No. / Other Identifiers:	% Weight:
Phosphoric Acid	7664-38-2	0.1-1
Quartz, Crystalline Silica	14808-60-7	0.1-1
Aluminosilicate	1302-93-8	3-7
Aluminum Oxide, non-fibrous	1344-28-1	80-90
Monoaluminum Phosphate	7784-30-7	3-7

Section 4: First Aid Measures

Emergency Overview: Some risk by inhalation. Prolonged skin contact may produce irritation/inflammation.
Potential Health Effects: Preexisting lung conditions such as, but not limited to bronchitis, emphysema, and/or asthma.
Chronic Health Hazards: Prolonged inhalation of product dust may cause lung damage. Prolonged and/or repeated inhalation of crystalline silica can couse silicosis of the lungs.
Medical Conditions Generally Aggravated by Exposure: Pre-existing skin and respiratory ailments.

Routes of Entry:

Eyes?	Skin?	Inhalation?	Ingestion?	Other?
Yes	Yes	Yes	No	N/A

Carcinogenicity:

NTP?	IARC?	OSHA?	WHMIS?	Other?
No	Yes	No	Yes	N/A

Details:
IARC has determined there is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silca and so it is categorized as a Group 1 carcinogen. NTP has classified respirable crystalline silica as aknown human carcinogen and ACGIH has classified it as a suspected human carcinogen.

Eye Contact: Immediately flush with water for at least 15 minutes. If irritations persists, consult physician.
Skin Contact: Immediately wash with cold water. If irritations persists, consult physician.
Inhalation: Remove person to fresh air. If problems persist, consult physician.
Ingestion: N/A

Section 5: Fire-Fighting Measures

Flash Point:	Auto-Ignition:	LEL:	UEL:
N/A	N/A	N/A	N/A

NFPA Hazard Classification:

Health:	Flammable:	Reactivity:	Special Hazard:
2	0	0	N/A

HMIS Hazard Classification:

Health:	Flammable:	Reactivity:	PPE:
2	0	0	E

Extinguishing Media: No special instructions or conditions.
Special Fire Fighting Procedures: No special instructions

Unusual Fire and Explosion Hazards:
SENSITIVITY TO MECHANICAL IMPACT: N/A
SENSITIVITY TO STATIC DISCHARGE: N/A
OTHER: N/A

Section 6: Accidental Release Measures

Sweep or pick up with vacuum cleaner. Minimize dust levels and wear dust mask.

Section 7: Handling and Storage

Store in dry place below 150 degrees F. Minimize skin contact.

Section 8: Exposure Controls/Personal Protection

Exposure Limits Ingredient	PEL-OSHA	TLV-ACGIH	Other
Aluminosilicate	5 mg/M3 (respirable)	5 mg/M3 (Inhalable faction)	N/A
Quartz, Crystalline Silica	10mg/M3 /(%SiO+2) (respirable)	0.025 mg/M3 (respirable)	N/A
Monoaluminum Phosphate	N/A	1 mg/M3 (respirable)	N/A
Phosphoric Acid	1 mg/M3	1 mg/M3	N/A
Aluminum Oxide, non-fibrous	5 mg/M3 (respirable)	1 mg/M3 (respirable)	N/A

Details:
N/A

Respiratory Protection:
If PEL/TLV is exceeded, use NIOSH approved mask/respriator for above listed ingredients.

Ventilation
LOCAL: N/A
SPECIAL: N/A
MECHANICAL: As required to maintain levels below the listed PEL/TLVs.
ENGINEERING CONTROLS: N/A

Protective Equipment:
GLOVES: Cloth gloves
EYE: safety glasses
CLOTHING: long sleeves

Personnel Sampling Procedure:
N/A

PPE Symbols Displayed:

Section 9: Physical and Chemical Properties

	Chemical Properties
Appearance (physical state, color, etc.):	A damp, moldable mixture of fine materials, some plastic fibers may be present
Odor:	Slight, pungent
Odor threshold:	N/A
pH:	2.5-3.5
Melting point/freezing point:	N/A
Initial boiling point and boiling range:	N/A
Flash point:	N/A
Evaporation rate:	N/A
Flammability (solid, gas):	N/A
Upper/lower flammability or explosive limits:	N/A
Vapor pressure:	N/A
Vapor density:	N/A
Relative density:	N/A
Solubility(ies):	3-5%
Partition coefficient: n-octanol/water:	N/A
Auto ignition temperature:	N/A
Decomposition temperature:	N/A
Viscosity:	N/A
Other Relevant Properties:	N/A

Section 10: Stability and Reactivity

Stability: Stable	**Avoid:** N/A
Reactivity: N/A	**Avoid:** N/A
Other: N/A	
Incompatibility: None	
Hazardous Decomposition of By-products None	
Polymerization: Will not occur	**Avoid:** N/A

Section 11: Toxicological Information

Chemical Name	% Wt.	LD50	LC50	Route of Exposure:	Short / Long Term Exposure Effects:	Known Carcinogen:
Phosphoric Acid	0.5	4400 mg/kg	N/A	Skin	Slight burning/irritation	No
Quartz	0.1-1	N/A	N/A	Inhalation	May cause cancer, silicosis	Yes

Other Studies:
N/A

Section 12: Ecological Information

Ecotoxicity:
N/AV

Environmental Fate:
N/AV

Section 13: Disposal Considerations

Dispose of in accordance with local, state and federal regulations.

Section 14: Transport Information

International
N/A

United States
N/A

Canada
SHIPPING NAME: N/A
P.I.N/UN: N/A
PRIMARY CLASS: N/A
SUBSIDIARY CLASS: N/A
PACKING GROUP: N/A

European Community
N/A

Section 15: Regulatory Information

US Federal Regulations

TSCA
All components of this product are included on the EPA TSCA Chemical Substance Inventory.

SARA 311 and 312 Hazard Categories:

Immediate (Acute) Health Hazard:	Yes

Delayed (Chronic) Health Hazard:	Yes
Fire Hazard:	No
Reactivity:	No
Sudden Release of Pressure:	No

SARA Section 313 Notification:
This product no contains toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Ozone Depleting Substances:
N/A

Volatile Organic Compounds (VOC):
N/A

US State Regulation:
California Prop 65: Crystalline Silica

Canadian Regulation:

WHMIS CLASSIFICATION: D2A, D2B, E
This Product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

European Regulation:
N/A

Other Regulation:
CERCLA (RQ): Yes, Phosphoric Acid (5000lbs)

MITI:
N/A

N/A is Not Applicable
N/K is Not Known
N/AV is Not Available

Section 16: Other Information

Removal After Service/Tear-Out Precautions:

Because of the possible presence of crystalline silica in used refractory debris, particular care should be exercised during tear-out to minimise the generation of dust. Adherence to proper methods of dust suppression and control is imperative. The following precautions should be taken during tear-out.
1.) Employees should be apprised of the hazards and proper conditions and precautions for safe use or exposure.
2.) Approved respirators, in accordance with requirements of federal regulations, should be used for dust levels above established exposure limits for respirable crystalline silica.
3.) Dust generation should be minimised by the use of dust control equipment or water spray.
4.) Wear protective clothing and vacuum clean prior to removing clothing.
5.) Where there is a possibility of exposure to dust containing respirable crystalline silica, the following warning should be posted.

FREE SILICA WORK AREA	**AVOID BREATHING DUST**
DUST MAY CAUSE DELAYED LUNG INJURY	
(SILICOSIS)	

Document Revision History:

Revision: 2	**Date Created:** 01/23/2015 **Date of Last Revision:** 07/27/2015	**Last Approval Date:** 07/27/2015

Document Author: Deb Cook	

SDS Status:

Disclaimer

Information contained within this safety data sheet is based on the current state of knowledge and relates to such products, their intended usage and the required safety precautions. Although every effort has been made to ensure that this information is correct and gives adequate safety margins in line with current knowledge, it does not constitute a specification and no information for other purposes, particularly information regarding properties of the delivered materials, may be inferred. Determination of the technical suitability of each material and complying with any guidance relating to safe usage remain the sole responsibility of the user. Consequently, beyond any separately agreed contractual arrangements, the aforementioned manufacturer and its subsidiaries exclude any and all liability resulting from the use of the product. Unknown hazards may be inherent in all materials; therefore these materials shall be treated with caution. Although certain hazards are described herein, we are unable to guarantee that these are the only hazards.