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CITY OF PORTLAND, OREGON - BUREAU OF DEVELOPMENT SERVICES

1900 SW Fourth Avenue, Suite 5000 • Portland, Oregon 97201 • www.portlandonline.com/bds • Fax 503-823-7425



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Facility Permit Plan Intake Form

FOR INTAKE, STAFF USE ONLY		Building/Mechanical <u>Tom</u>
Date Received <u>11/20/12</u>	Electrical _____	
Building Registration # _____	Plumbing _____	
Fixed Bid _____	Fire _____	<u>Gary</u>
Bin # <u>B-2</u>	Planning _____	
Building Permit # <u>12-166722-DFS-3-FA</u>	BES _____	
Mechanical # _____	PDOT _____	
Plumbing Permit # _____	Structural _____	
Electrical Permit # _____	Other _____	

APPLICANT: Complete all sections below that apply to the project. Please print legibly.

Print Name Brian Grant Sign Name BGA
 Street Address 18880 SW Shaw St.
 City Aloha State OR Zip Code 97006
 Day Phone 971-205-8049 FAX 503-649-3301 email briang@inline-cc.com

Plans / permits available for pick up at 1900 SW 4th Avenue, 2nd floor between 8:00 am to 5:00 pm

Contact Name for plan/permit pick up Brian Grant
 Day Phone 971-205-8049 email briang@inline-cc.com

Project Building Name / # Biomedical Research Building
 Project Address or Location 3181 SW Sam Jackson Park Road Portland, OR 97239
 Project Name and Description Research Cath Lab. This is a deferred submittal for applied fireproofing to structural steel. Reference Building permit # 12-166722-FA
 Total Project Value _____ Project Reference #/Billing ID # OHSU # 12-BRB-080
 Building Contractor INLINE Commercial Construction Inc. CCB # 51880
 Mechanical Contractor _____ CCB # _____
 Electrical Contractor _____ CCB# _____ License # _____
 Plumbing Contractor _____ CCB# _____ License # _____

Building Permit

No. of Stories _____ [Y] [N] Alarms Required
 Const. Type _____ [Y] [N] Smoke Det. Req'd
 [Y] [N] Sprinklers Req'd
 [Y] [N] Struct. Eng / Calcs Submitted

Mechanical Permit

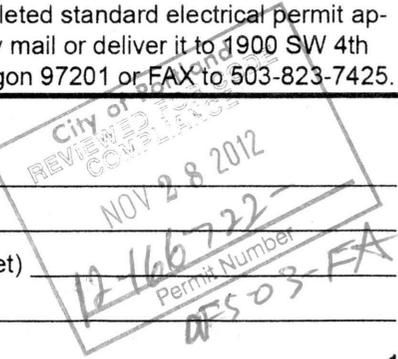
Mechanical Valuation _____
 Description _____

Electrical Permit

Please provide a completed standard electrical permit application form. You may mail or deliver it to 1900 SW 4th Avenue, Portland, Oregon 97201 or FAX to 503-823-7425.

Plumbing Permit

Number of Fixtures _____
 Back Flow Devices _____
 Water Service (# of Feet) _____
 Medical Gas _____
 Other _____



12-166722-DFS-3-FA

B-2



2330 106th Street SW
 Everett, WA 98204
 Phone (425) 771-1138
 Fax (425) 778-7819

LETTER OF TRANSMITTAL

Date sent: 11/19/2012	Job number:
Fireproofing Submittal	
Phone: 425 771-1138	
Fax: 425 778-7819	

To: Inline Commercial Construction Inc.

Attention: Jon Sandquist
 Re: OHSU BRB Cath Lab

# of Copies	Date of transmittal	Doc/Bid Submittal #	Description:
1 Ea.			Fireproofing Thickness Drawing
1 Ea.			WR Grace Monokote MK-6HY Product Data
1 Ea.			WR Grace Monokote MK-6HY MSDS

Transmitted as indicated below:

- | | |
|--|---|
| <input checked="" type="checkbox"/> For approval | <input type="checkbox"/> Approved as submitted |
| <input checked="" type="checkbox"/> For your use | <input type="checkbox"/> Approved as noted |
| <input checked="" type="checkbox"/> As requested | <input type="checkbox"/> Returned for corrections |
| <input type="checkbox"/> For review and comment | <input type="checkbox"/> Sign & return |
| | <input type="checkbox"/> Other _____ |

Remarks:

Jon,
See the attached submittal for the OHSU BRB Cath Lab.
Please call if you have any questions.
Thank you.

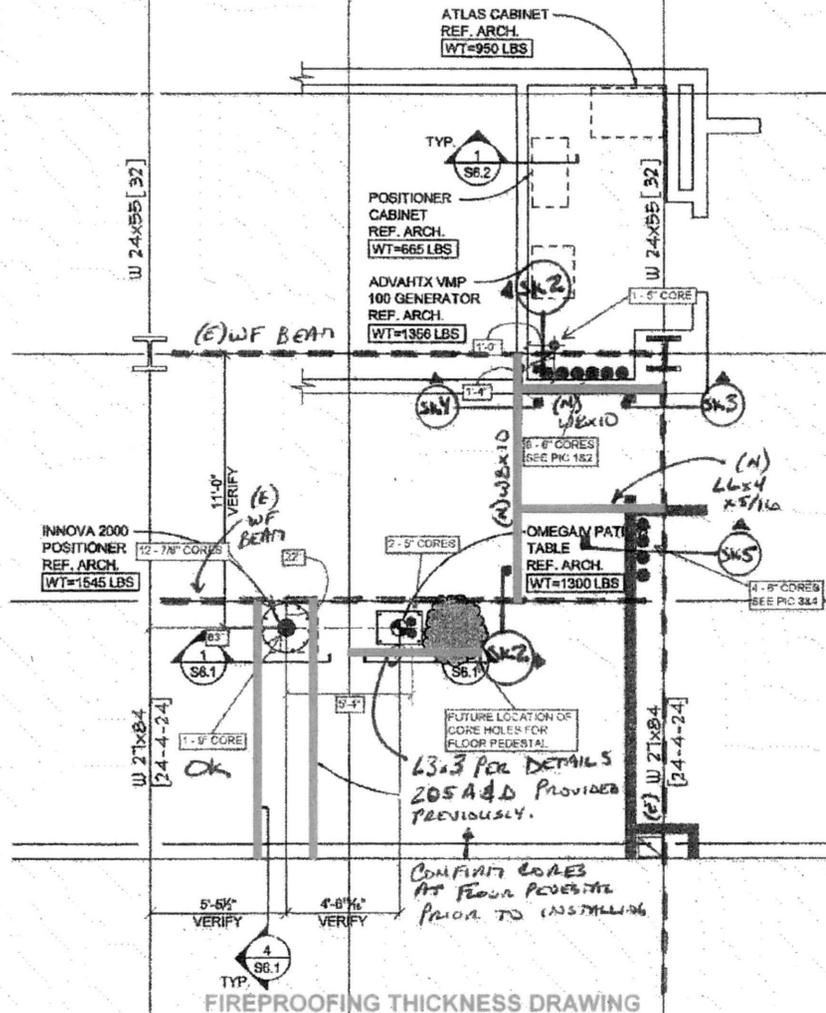
Copy to: _____

Signed: _____
Russ Wilson
 Project Manager

(T)= Transmittal Only

Received by: _____

**PATCH EXISTING FIREPROOFING AS
REQUIRED FOR THE INSTALLATION
OF THE NEW STEEL**



FIREPROOFING THICKNESS DRAWING
PREPARED BY NORKOTE INC.
CONTACT: RUSS WILSON
425 771-1138
MATERIAL: WR GRACE, MONOKOTE MK-6HY
CONTACT: DON LONG, CSI
360 253-8001

2009 SBC, TABLE 601
CONSTRUCTION TYPE IA

SECONDARY BEAMS: 2 HOUR PER UL DESIGN D779 AS MARKED

- 2 Hour W8x10 (1 1/2") D779
- 2 Hour Floor Angles (1 1/2") D779

D A T A S U B M I T T A L

Monokote[®] MK-6[®]/HY[®]

Product Data and Application Instructions

Product Information/Description

Monokote[®] MK-6[®]/HY[®] is a single component, mill-mixed fireproofing plaster which requires only the addition of water on the job site to form a consistent, pumpable slurry. MK-6/HY is designed for use on structural steel columns, beams, joists, trusses and floor and roof decking.

Features/Benefits

Monokote cementitious fireproofing offers many significant advantages to the architect, owner, applicator and building occupant. These include:

- Proven in-place performance
- Low in-place cost
- Fast, efficient application
- UL tested and factory inspected
- Universal Building code compliance (ICBO, SBCCI, BOCA, NBCC, ICC)

Delivery and Storage

- All material to be used for fireproofing shall be delivered in original unopened packages bearing the name of the manufacturer, the brand and proper Underwriters Laboratories Inc. labels for fire hazard and fire resistance classifications.
- The material shall be kept dry until ready for use. Packages of material shall be kept off the ground, under cover and away from sweating walls and other damp surfaces. All bags that have been exposed to water before use shall be discarded. Stock of material is to be rotated and used before its expiration date.

Steel and Concrete Surfaces

- Prior to the application of Monokote MK-6/HY, an inspection shall be made to determine that all steel surfaces are acceptable to receive fireproofing. The steel to be fireproofed shall be free of oil, grease, excess rolling compounds or lubricants, loose mill scale, excess

Performance Characteristics

Physical Properties	Values	Test Method
Dry density, minimum average	240 kg/m ³ (15 pcf)	ASTM E605 UBC STD 7-6
Bond strength	16.2 KPa (339 psf)	ASTM E736
Compression, 10% deformation	68.9 KPa (1,440 psf)	ASTM E761
Air erosion	0.000 g/m ² (0.000 g/ft ²)	ASTM E859
High velocity air erosion	No continued erosion after 4 hours	ASTM E859 UMC STD 6-1
Corrosion	Does not contribute to corrosion	ASTM E937
Bond impact	No cracking, spalling or delamination	ASTM E760
Deflection	No cracking, spalling or delamination	ASTM E759
Resistance to mold growth	No growth after 28 days	ASTM G21
Surface burning characteristics	Flame spread = 0 Smoke developed = 0	ASTM E84
Combustibility	Less than 5 MJ/m ² total, 20 kw/m ² peak heat release	ASTM E1354
Impact penetration	3.3 cm ³	Developed by City of San Francisco
Abrasion resistance	8.3 cm ³	Developed by City of San Francisco

- rust, noncompatible primer, lock down agent or any other substance that will impair proper adhesion. Where necessary, the cleaning of steel surfaces to receive fireproofing shall be the responsibility of the general contractor.
- The project architect shall determine if the painted/primed structural steel to receive fireproofing has been tested in accordance with ASTM E119, to provide the required fire resistance rating.
- Many Fire Resistance Designs allow the use of painted metal floor or roof deck in place of galvanized decking. Painted decking must be UL listed in the specific fire resistance designs and

must carry the UL classification marking. Consult your local Grace sales representative for details.

- Prior to application of Monokote MK-6/HY, a bonding agent, approved by the fireproofing manufacturer, shall be applied to all concrete substrates to receive MK-6/HY.
- Fireproofing to the underside of roof deck assemblies shall be done only after roofing application is complete and roof traffic has ceased.
- No fireproofing shall be applied prior to completion of concrete work on steel decking.

- g. Other trades shall not install ducts, piping, equipment, or other suspended items until the fireproofing is completed and inspected.
- h. Other trades shall install clips, hangers, support sleeves, and other attachments required to penetrate the fireproofing, prior to application of the fireproofing material.

Mixing

- a. Monokote Fireproofing shall be mixed by machine in a conventional, plaster-type mixer or a continuous mixer specifically modified for cementitious fireproofing. The mixer shall be kept clean and free of all previously mixed material. The mixer speed in a conventional mixer shall be adjusted to the lowest speed which gives adequate blending of the material and a mixer density of 640 - 720 kg/m³ (40 - 45 pcf) of material.
- b. Using a suitable metering device and a conventional mixer, all water shall be first added to the mixer as the blades turn. Mixing shall continue until the mix is lump-free, with a creamy texture. All material is to be thoroughly wet. Target density of 688 ± 16 kg/m³ (43 ± 1 pcf) is most desirable. Overmixing Monokote will reduce pumping rate.

Application

- a. Application of Monokote Fireproofing can be made in the following sequence:
 - 1. For thicknesses of approximately 13 mm (1/2 in.) or less, apply in one pass.
 - 2. For thicknesses of 16 mm (5/8 in.) or greater, apply subsequent passes after the first coat has set.

- b. Spatterkote® SK-3 shall be applied to all flat plate cellular deck units and below all bottomless trench headers prior to application of MK-6/HY. Spatterkote shall be applied in accordance with the manufacturer's application instructions.
- c. Spatterkote SK-3 shall be applied to roof decking where required prior to application of Monokote.
- d. Monokote Fireproofing material shall not be used if it contains partially set, frozen or caked material.
- e. Monokote shall have a minimum average dry, in-place density of 240 kg/m³ (15 lbs/ft³).
- f. Monokote is formulated to be mixed with water at the job site.
- g. Monokote Accelerator is to be used with Monokote MK-6/HY to enhance set characteristics and product yield. The Monokote Accelerator is injected into the Monokote MK-6/HY at the spray gun. Monokote Accelerator shall be mixed and used according to manufacturers recommendations.
- h. Monokote is applied directly to the steel, at various rates of application which will be job dependent, using standard plastering type equipment or continuous mixer/pump units. A spray gun, with a properly sized orifice and spray shield and air pressure at the nozzle of approximately 38 kPa (20 psi), will provide the correct hangability, density and appearance. NOTE: If freshly sprayed Monokote does not adhere properly, it is probably due either to a too wet mix, poor thickness control, or an improperly cleaned substrate.

Temperature and Ventilation

- a. An air and substrate temperature of 4.4°C (40°F) minimum shall be maintained for 24 hours prior to application, during application and for a minimum of 24 hours after application of Monokote.

- b. Provisions shall be made for ventilation to properly dry the fireproofing after application. In enclosed areas lacking natural ventilation, air circulation and ventilation must be provided to achieve a minimum total air exchange rate of 4 times per hour until the material is substantially dry.

Field Tests

- a. The architect will select an independent testing laboratory (for which the owner will pay) to sample and verify the thickness and density of the fireproofing in accordance with the provisions of ASTM E605-93, "Standard Test Method for Thickness and Density of Sprayed Fire-Resistive Material Applied to Structural Members" or Uniform Building Code Standard No. 7-6 "Thickness and Density Determination for Spray Applied Fireproofing."
- b. The architect will select an independent testing laboratory (for which the owner will pay) to randomly sample and verify the bond strength of the fireproofing in accordance with the provisions of ASTM E736.
- c. Results of the above tests will be made available to all parties at the completion of pre-designated areas which shall have been determined at a pre-job conference.

Safety

- a. Monokote is slippery when wet. The general contractor and applicator shall be responsible for posting appropriate cautionary SLIPPERY WHEN WET signs. Signs should be posted in all areas in contact with wet fireproofing material. Anti-slip surfaces should be used on all working surfaces.
- b. A Material Safety Data Sheet for Monokote MK-6/HY is available upon request by calling 866-333-3SBM (3726).

W. R. Grace & Co.-Conn.
62 Whittemore Avenue
Cambridge, MA 02140-1692
Tel.: (866) 333-3SBM (3726)
Fax: (617) 498-4311

W. R. Grace & Co.-Conn.
Ajax Avenue
Slough, Berks SL1 4BH
United Kingdom
Tel.: 44-(0)-1753-692-929
Fax: 44-(0)-1753-637-616

W. R. Grace (Hong Kong) Limited
Grace Industrial Building
6 On Chuen Street
On Lok Tsuen, Fanling
Tel.: 852-2-675-7898
Fax: 852-2-675-9193

For Technical Assistance call toll free at 866-333-3SBM (3726).

 Visit our web site at www.graceconstruction.com

 printed on recycled paper

W. R. Grace & Co.-Conn. 62 Whittemore Avenue Cambridge, MA 02140

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W. R. Grace & Co.-Conn., 62 Whittemore Avenue, Cambridge, MA 02140. In Canada, Grace Canada, Inc., 294 Clements Road, West, Ajax, Ontario, Canada L1S 3C6.

These products may be covered by patents or patents pending.
MK-514H Printed in USA

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4/05 FA/LI/1M

GRACE
Construction Products

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: MK-6 HY
MSDS ID Number: Z-01745

MSDS Date: 07/11/2008

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: MK-6 HY
MSDS Number: Z-01745
Cancelled MSDS Number: Z-01721
MSDS Date: 07/11/2008
Chemical Family Name: Lightweight Gypsum Aggregate Plaster
Product Use: Fireproofing Product.
Chemical Formula: Mixture-NA
CAS # (Chemical Abstracts Service Number): Mixture-NA

Manufactured by:

W.R.Grace & Co.-Conn.
62 Whittemore Avenue
Cambridge, MA 02140

Grace Canada, Inc.
294 Clements Road West
Ajax, Ontario L1S 3C6

In Case of Emergency Call:

In USA: (617) 876-1400 In Canada: (905) 683-8561

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS#	Percent (max)
Calcium Carbonate.	1317-65-3	1-10
Calcium sulfate	007778-18-9	50-100
Cellulose.	65996-61-4	1-10
Polystyrene	009003-53-6	1-10
Quartz	014808-60-7	1-10

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:

Caution!

Causes eye irritation.

Causes skin irritation.

Causes respiratory irritation

Prolonged exposure may cause risk of lung disease (i.e. silicosis and/or lung cancer).

HMIS Rating:

Health: 1*
Flammability: 0
Reactivity: 0
Personal Protective Equipment: B (See Section 8)

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: MK-6 HY
MSDS ID Number: Z-01745

MSDS Date: 07/11/2008

Potential Health Effects:

Inhalation: May be irritating if inhaled resulting in coughing and sneezing.
May aggravate chronic respiratory conditions such as asthma or bronchitis.
Long term inhalation of dust may increase risk of contracting pneumoconiosis ("dusty lungs") and decrease lung function.
Prolonged inhalation of respirable crystalline silica dust can result in lung disease (i.e. silicosis and/or lung cancer). Symptoms include coughing, shortness of breath, wheezing and reduced pulmonary function.
Eye Contact: Eye contact causes irritation.
Skin Contact: Skin contact causes irritation.
May dry skin.
During hardening (rehydration) this product may slowly develop sufficient heat to cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or while in continuous, prolonged contact with the skin.
Skin Absorption: Not expected to be harmful if absorbed through the skin.
Ingestion: Ingestion not expected to be harmful.

SECTION 4 - FIRST AID MEASURES:

Skin Contact: Wash with soap and water.
If discomfort or irritation persists, consult a physician.
Remove contaminated clothing and wash before reuse.
Eye Contact: Flush eyes with water for at least 15 minutes while holding eyelids open.
If discomfort or irritation persists, consult a physician.
Ingestion: Do not induce vomiting.
Never give anything by mouth to an unconscious person.
If discomfort or irritation persists, consult a physician.
Inhalation: If symptoms develop, get fresh air. If symptoms persist, consult a physician.
If breathing has stopped, give artificial respiration then oxygen if needed.

SECTION 5 - FIRE AND EXPLOSION HAZARD DATA

Flash Point:	Not Applicable
Flash Point Method:	Not Applicable
Lower Explosion Limit:	Not Available
Upper Explosion Limit:	Not Available
Auto-Ignition Temperature:	Not Available

NFPA Rating:

Health:	1
Flammability:	0
Reactivity:	0

Extinguishing Media: Not Applicable. Product will not burn.

Special Fire Fighting Procedures: None

No special procedures specific to this product.

Unusual Fire and Explosion Hazards: None unless noted below.

SECTION 6 - ACCIDENTAL RELEASE MEASURES:

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: MK-6 HY
 MSDS ID Number: Z-01745

MSDS Date: 07/11/2008

Spills/Leaks: Use proper personal protective equipment. Do not flush to sewer or allow to enter waterways. Keep unnecessary people away.

If spilled, prevent material from entering water systems. Observing the listed Precautionary Measures found in Section 7 of this document. Dry spills should be immediately swept up and placed in a suitable container to prevent further release of material. Slurry spills should be immediately contained (to minimize the extent of the spill) and absorbed with an inert, non-combustible material. Place material in a suitable container to prevent further release.

SECTION 7 - HANDLING AND STORAGE

Precautionary Measures: Avoid contact with eyes, skin and clothing.

Avoid creating and inhaling airborne dust or particulates.

Practice good personal hygiene to avoid ingestion.

Use only with adequate ventilation.

Wash clothing before reuse.

Equip mixers with dust covers.

Provide respiratory protection if needed.

Wear skin and eye protection to avoid contact with dust or spray.

Post "Slippery When Wet" signs where appropriate.

Use anti-slip surfaces on working platforms.

FOR PROFESSIONAL USE ONLY. KEEP OUT OF CHILDREN'S REACH.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT

EXPOSURE GUIDELINES (US)

Ingredient	ACGIH TLV			OSHA PEL			Other
	TWA	STEL	Ceiling	TWA	STEL	Ceiling	
Calcium Carbonate.	10 mg/m ³ TWA (particulate matter containing no asbestos and <1% crystalline silica)	-	-	-	-	-	-
Calcium sulfate	10 mg/m ³ TWA (particulate matter containing no asbestos and < 1% crystalline silica)	-	-	15 mg/m ³ TWA; 5 mg/m ³ TWA (respirable fraction)	-	-	-
Cellulose.	-	-	-	-	-	-	-
Polystyrene	-	-	-	-	-	-	-
Quartz	0.025 mg/m ³ TWA (respirable fraction)	-	-	((250)/(%SiO ₂ + 5) mpcf TWA (respirable)); ((10)/(%SiO ₂ + 2) mg/m ³ TWA (respirable)); ((30)/(%SiO ₂ + 2) mg/m ³ TWA (total dust))	-	-	-

In addition to the exposure limits referenced above, the following non-specific limits for dust apply to this product; OSHA, 15 mg/m³-TWA or Total Dust and 5 mg/m³-TWA as Respirable Dust, ACGIH, 10 mg/m³-TWA as Total Dust and 3 mg/m³-TWA as Respirable Dust.

EXPOSURE GUIDELINES (CANADA)

Employers should consult local Provincial regulatory limits for exposure guidelines which may vary locally.

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Product Name: MK-6 HY
MSDS ID Number: Z-01745

MSDS Date: 07/11/2008

Engineering Controls: Exhaust fans may be necessary when mixing in enclosed areas.

Personal Protective Equipment:

Respiratory Protection: Wear approved respiratory protection (generally a N-95 dust mask is appropriate) to prevent employee exposure from exceeding the limits specified.

Skin Protection: Work gloves or hand creams are recommended to prevent drying of skin.

Eye Protection: At minimum, safety glasses with side shields should be worn where exposure to excessive dust or spray is likely.

Work/Hygienic Practices: Use good personal hygiene practices.

Use bag opening and disposal procedures which minimize dust release. Equip mixers with dust covers to minimize dust released during mixing cycle. After each work shift, workers should shower with soap and water. Work clothing should be changed daily.

Prior to welding or cutting, product must be removed from steel surfaces in those immediate areas where exposure to excessive heat, applied either directly or through conduction, from cutting or welding operations is possible.

All trades should minimize the release of dust during removal of materials by:

Wetting using water, prior to its removal.

Removing small areas of fireproofing at one time.

Maintaining a clean worksite.

Quartz (Crystalline silica) is a naturally-occurring mineral that is commonly contained in materials that are mined from the earth's surface such as sand, limestone, clay and gypsum (Calcium sulfate). Total quartz is a value usually representing the combined fractions of large, non-respirable sized particles and of respirable sized particles (less than ten microns in aerodynamic diameter). It is only the respirable fraction of total quartz that is recognized as hazardous by professionals in the field of Occupational Health and by most regulatory agencies.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid
Appearance/Odor:	Coarse, free flowing white to black powder, no odor.
Odor Threshold: (ppm)	Not Determined
pH:	Not Available
Vapor Pressure: (Mm Hg)	Unknown
Vapor Density: (Air = 1)	Unknown
Solubility In Water:	Unknown
Specific Gravity: (Water = 1)	Not Available
Evaporation Rate: (Butyl Acetate = 1)	Unknown
Boiling Point:	Not Applicable
Viscosity:	Unknown
Bulk Density: (Pounds/Cubic Foot)(Pcf)	12-16 PCF
% Volatiles (gr/L): (70°F) (21°C)	Not Available

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: MK-6 HY
MSDS ID Number: Z-01745

MSDS Date: 07/11/2008

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability: Stable
Conditions To Avoid: None known for this product.
Hazardous Polymerization: Will not polymerize.
Hazardous Decomposition Products: Carbon dioxide, Carbon monoxide and Monomers (C8H8) and various polymers (C8H8). Temperatures in excess of 4000°F from cutting or welding operations may generate Sulfur dioxide. Upon complete combustion, Carbon monoxide and Carbon dioxide are released.

SECTION 11 - TOXICOLOGICAL INFORMATION

<u>Ingredient(No data unless listed.)</u>	<u>CAS Number</u>	<u>LD50 and LC50</u>
Calcium Carbonate.	1317-65-3	Oral LD50 Rat: 6450 mg/kg
Cellulose.	65996-61-4	Inhalation LC50 Rat: >5800 mg/m ³ /4H; Oral LD50 Rat: >5 g/kg; Dermal LD50 Rabbit: >2 g/kg

Carcinogenicity:

Ingredient	IARC Group 1	IARC Group 2A	IARC Group 2B	NTP Known	NTP Suspect	OSHA
Calcium Carbonate.	No	No	No	No	No	No
Calcium sulfate	No	No	No	No	No	No
Cellulose.	No	No	No	No	No	No
Polystyrene	No	No	No	No	No	No
Quartz	Yes	No	No	Yes	No	Yes

Mutagenicity: Not applicable.
Teratogenicity: Not applicable.
Reproductive Toxicity: Not applicable.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Fate: No data available for product.
Ecotoxicity: No data available for product.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Procedures: Consult all regulations (federal, state, provincial, local) or a qualified waste disposal firm when characterizing waste for disposal. According to EPA (40 CFR § 261), waste of this product is not defined as hazardous. Dispose of waste in accordance with all applicable regulations.
Wastes of this product such as empty bags and excess material are typically not defined as hazardous.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name: Not Applicable
UN/NA Number: Not Applicable
Domestic Hazard Class: Nonhazardous
Surface Freight Classification: Wall Plaster
Label/Placard Required: Not Applicable

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: MK-6 HY
MSDS ID Number: Z-01745

MSDS Date: 07/11/2008

SECTION 15 - REGULATORY INFORMATION

REGULATORY CHEMICAL LISTS:

CERCLA (Comprehensive Response Compensation and Liability Act):

(None present unless listed below)

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>	<u>CERCLA RQ</u>
-----------------------------	---------------------	--------------------	-------------------------

SARA Title III (Superfund Amendments and Reauthorization Act)

SARA Section 312/Tier I & II Hazard Categories:

Health Immediate (acute)	Yes
Health Delayed (chronic)	Yes
Flammable	No
Reactive	No
Pressure	No

302 Reportable Ingredients (Identification Threshold 1%.):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>	<u>SARA 302 TPQ</u>
-----------------------------	---------------------	--------------------	----------------------------

313 Reportable Ingredients (Chemicals present below reporting threshold are exempt):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
-----------------------------	---------------------	--------------------

National Volatile Organic Compound Emission Standards For Architectural Coatings:

 Volatile Organic Content: (gr/L) 0

WHMIS Classification(s): D2 A

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR). This MSDS contains all the information required by the CPR.

State Regulatory Information:

California Proposition 65: WARNING! This product contains substances known to the state of California to cause cancer, birth defects or other reproductive harm.

Massachusetts Hazardous Substance List(Identification threshold 0.001%(1ppm)):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Quartz	014808-60-7	4.3924

New Jersey Hazardous Substance List(Identification threshold (0.1%)):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Pentane	000109-66-0	.1179

Pennsylvania Hazardous Substance List(Identification threshold 0.01%):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
-----------------------------	---------------------	--------------------

CHEMICAL INVENTORY STATUS:

All chemicals in this product are listed or exempt from listing in the following countries:

US	CANADA		EUROPE	AUSTRALIA	JAPAN	KOREA	PHILIPPINES
TSCA	DSL	NDSL	EINECS/ELINCS	AICS	ENCS	ECL	PICCS
Yes	Yes	No	Yes	Yes	Yes	Yes	Yes

SECTION 16 - OTHER INFORMATION

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: MK-6 HY
MSDS ID Number: Z-01745

MSDS Date: 07/11/2008

Non-Hazardous Ingredient Disclosure:

Chemical Name

CAS Number

Prepared by:	EH&S Department
Approved by:	EH&S Department
Approved Date:	07/11/2008

Disclaimer:

"The data included herein are presented in accordance with various environment, health and safety regulations. It is the responsibility of a recipient of the data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right-to-know and environmental protection."