

**W. R. GRACE**  
MATERIAL SAFETY DATA SHEET

Product Name: Bituthene Mastic  
MSDS ID Number: M-85778

MSDS Date: 09/25/2006

**SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**Product Name:** Bituthene Mastic  
**MSDS Number:** M-85778  
**Cancelled MSDS Number:** M-85753  
**MSDS Date:** 09/25/2006  
**Chemical Family Name:** Modified Asphalt & Inorganic Fillers In Organic Solvent.  
**Product Use:** Termination Sealer  
**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**

<b>Ingredient</b>	<b>CAS#</b>	<b>Percent (max)</b>
1,2,4-Trimethylbenzene	000095-63-6	0-16
Kaolin	001332-58-7	25-50
Organophilic clay	121888-66-2	1-10
Petroleum Asphalt	008052-42-4	25-50
Silica, amorphous	112945-52-5	1-10
Solvent naphtha, petroleum, light arom.	064742-95-6	10-25
Styrene-Butadiene block copolymer	009003-55-8	1-10
Naphthenic Distillates	64742-52-5	1-10

**SECTION 3 - HAZARDS IDENTIFICATION**

**Emergency Overview:**

**Caution!**

Combustible liquid.  
May be harmful if inhaled.  
Inhalation of high vapor concentration can cause CNS depression, unconsciousness or death.  
Causes severe respiratory tract irritation.  
Causes severe eye irritation.  
Causes skin irritation.  
Harmful if absorbed through skin.  
May produce local skin tumors.  
May be harmful if ingested.  
Causes digestive tract irritation if ingested.

**HMIS Rating:**

Health: 2\*  
Flammability: 2  
Reactivity: 0  
Personal Protective Equipment: B,G (See Section 8)

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**Potential Health Effects:**

**Inhalation:** Causes severe respiratory tract irritation.

Effects include: Drowsiness, nausea, CNS depression, vomiting, coma, headache, dizziness, loss of consciousness, death, coughing, anemia, narcotic effects, irritation.

**Eye Contact:** Eye contact can cause severe irritation.

Prolonged eye contact can result in tissue damage.

**Skin Contact:** Skin contact causes irritation.

Prolonged skin contact can result in irritation causing redness and itching.

May defat skin.

Animal tests indicate that prolonged and repeated skin contact with the asphalt in this product may produce local skin tumors.

**Skin Absorption:** Harmful if absorbed through the skin.

May cause effects similar to those defined under inhalation.

**Ingestion:** Harmful if ingested.

If ingested, causes irritation to the linings of the mouth, esophagus and stomach.

Effects include: Drowsiness, nausea, fatigue, pulmonary edema (from aspiration into the lungs from vomiting), CNS depression, vomiting, diarrhea, headache, dizziness, loss of consciousness, death, anemia and narcotic effects.

**SECTION 4 - FIRST AID MEASURES:**

**Skin Contact:** In case of skin contact, clean fingernails and wash skin with soap and water. If residue remains, clean with waterless handcream or abrasive soap. Never use solvents.

Call a physician.

Remove contaminated clothing and wash before reuse.

**Eye Contact:** Flush eyes with water for at least 15 minutes while holding eyelids open.

Get immediate medical attention.

**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**

<b>Flash Point:</b>	104.0°F
<b>Flash Point Method:</b>	Pensky Marten Closed Cup
<b>Lower Explosion Limit:</b>	Not Available
<b>Upper Explosion Limit:</b>	Not Available
<b>Auto-ignition Temperature:</b>	Not Available

**NFPA Rating:**

<b>Health:</b>	2
<b>Flammability:</b>	2
<b>Reactivity:</b>	0

**Extinguishing Media:** In case of fire, use water spray, dry chemical, Carbon dioxide or foam.

**Special Fire Fighting Procedures:** Firefighters should be equipped with Self-contained Breathing Apparatus (SCBA) to prevent inhalation of hazardous decomposition products. (See Section 10.) Water spray may be ineffective when extinguishing fire. Water may be used to cool closed containers. Do not scatter spilled material with high pressure water stream. Fog nozzles are preferred if water is used.

**Unusual Fire and Explosion Hazards:** Keep away from heat, electrical equipment, sparks, and open flame. Extinguish all sources of ignition. Vapors are heavier than air and may travel along ground to ignition sources such as electrical equipment, smoking materials, welding equipment, and pilot lights. Product can ignite explosively. Closed containers may explode when exposed to extreme heat. Flammable liquid. Keep containers closed except when in use.

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**SECTION 6 - ACCIDENTAL RELEASE MEASURES:**

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

**SECTION 7 - HANDLING AND STORAGE**

**Precautionary Measures:**

Avoid contact with eyes, skin and clothing.  
 Use only with adequate ventilation.  
 Forced ventilation is necessary in pits and other confined areas.  
 Leave work area periodically to reduce effects of inhalation. Respirators must be worn if exposures cannot be maintained below exposure limits.  
 Do not take internally.  
 Practice good personal hygiene to avoid ingestion.  
 Wash clothing before reuse.  
 To avoid skin contact, use gloves or barrier creams. Promptly cleanse hands with waterless hand cleaner, clean fingernails and wash with soap and water after handling.  
 When working around heating and air conditioning systems, block intake vents to prevent vapor from traveling into buildings. Keep away from heat, sparks and flame. Enforce no smoking policy for all trades present on job site. Keep container closed tightly when not in use to avoid unnecessary release of vapors and to prevent spills. Do not reuse empty containers.  
**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	
1,2,4-Trimethylbenzene	-	-	-	-	-	-	NIOSH - 25 ppm TWA; 125 mg/m <sup>3</sup> TWA
Kaolin	2 mg/m <sup>3</sup> TWA (respirable fraction) (The value is for particulate matter)	-	-	total dust: 10 mg/m <sup>3</sup> TWA; respirable fraction: 5 mg/m <sup>3</sup> TWA	-	-	-
Organophilic clay	-	-	-	-	-	-	-
Petroleum Asphalt	0.5 mg/m <sup>3</sup> TWA (inhalable fraction); (as benzene-soluble aerosol)	-	-	-	-	-	-
Silica, amorphous, fumed, cryst.-free	-	-	-	-	-	-	-
Solvent naphtha, petroleum, light arom.	-	-	-	-	-	-	-
Styrene-Butadiene block copolymer	-	-	-	-	-	-	-
Naphthenic Distillates	-	-	-	-	-	-	-

**EXPOSURE GUIDELINES (CANADA)**

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

**Engineering Controls:** Explosion-proof portable ventilation is required to prevent vapor build-up during application in enclosed or depressed areas. Vapors are heavier than air and will build-up in confined spaces without ventilation. Vapor build-up can be life threatening. Portable equipment such as a Coppus Vano portable blower/exhauster should be used in accordance with the manufacturer's instructions.

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**Personal Protective Equipment:**

**Respiratory Protection:** Respiratory protection is not normally required. However, a chemical cartridge respirator with organic vapor cartridge is required at or above the applicable exposure limits (Consult above Exposure Guidelines). If no limits exist, use an approved respirator whenever a vapor or mist is generated or if respiratory irritation occurs. Supplied air respirator (SCBA) is required at exposure levels above the capabilities of a chemical cartridge respirator.

**Skin Protection:** PVA supported polyvinyl alcohol, nitrile or viton gloves are recommended. Natural rubber or butyl rubber gloves should not be worn.

**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.

You and your personnel must completely understand the fire and explosion hazards before using combustible liquid based products.

To avoid skin contact, wear recommended gloves (see skin protection recommendation) and wash with soap and water after handling. Intermittent or occasional skin contact with petroleum asphalt is not expected to have serious health effects as long as good personal hygiene measures are taken. Promptly cleanse with waterless hand cleaner, clean fingernails and wash with soap and water after handling. All employees working with this product must exercise good and prudent personal hygiene practices. .

Avoid rubbing eyes while handling.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State:</b>	Liquid
<b>Appearance/Odor:</b>	Hydrocarbon (solvent type) odor.
<b>Odor Threshold:</b> (ppm)	Not Determined
<b>pH:</b>	Not Applicable
<b>Vapor Pressure:</b> (Mm Hg)	Not Determined
<b>Vapor Density:</b> (Air = 1)	>4
<b>Solubility In Water:</b>	insoluble
<b>Specific Gravity:</b> (Water = 1)	1.3
<b>Evaporation Rate:</b> (Butyl Acetate = 1)	0.2
<b>Boiling Point:</b>	300-350
<b>Viscosity:</b>	Not Available
<b>Bulk Density:</b> (Pounds/Cubic Foot)(Pcf)	Not Applicable
<b>% Volatiles (gr/L):</b> (70°F) (21°C)	<25.0%

**SECTION 10 - STABILITY AND REACTIVITY**

<b>Chemical Stability:</b>	Stable
<b>Conditions To Avoid:</b>	Heat, Sparks, Open flames, Oxidizing materials, Strong oxidizers, Strong acids, Water, nitric acid, rubber and plastics.
<b>Hazardous Polymerization:</b>	Will not polymerize.
<b>Hazardous Decomposition Products:</b>	Carbon dioxide, Carbon monoxide, Sulfur oxides and Low molecular weight hydrocarbons.

**SECTION 11 - TOXICOLOGICAL INFORMATION**

<b><u>Ingredient(No data unless listed.)</u></b>	<b><u>CAS Number</u></b>	<b><u>LD50 and LC50</u></b>
1,2,4-Trimethylbenzene	000095-63-6	Inhalation LC50 Rat : 18 gm/m <sup>3</sup> /4H; Oral LD50 Rat : 5 gm/kg
Silica, amorphous, fumed, cryst.-free	112945-52-5	Oral LD50 Rat : 3160 mg/kg
Xylenes (o-, m-, p- isomers)	001330-20-7	Inhalation LC50 Rat : 5000 ppm/4H; Oral LD50 Rat : 4300 mg/kg;

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**Carcinogenicity:**

Ingredient	IARC Group 1	IARC Group 2A	IARC Group 2B	NTP Known	NTP Suspect	OSHA
1,2,4-Trimethylbenzene	No	No	No	No	No	No
Cumene	No	No	No	No	No	No
Kaolin	No	No	No	No	No	No
Organophilic clay	No	No	No	No	No	No
Petroleum Asphalt	No	No	Yes	No	No	No
Silica, amorphous, fumed, cryst.-free	No	No	No	No	No	No
Solvent naphtha, petroleum, light arom.	No	No	No	No	No	No
Styrene-Butadiene block copolymer	No	No	No	No	No	No
Naphthenic Distillates	No	No	NO	NO	NO	NO

Animal tests indicate that prolonged and repeated skin contact with the asphalt in this product may produce local skin tumors.

**Mutagenicity:** Ethyl benzene contained in this product has produced mutagenic effects based on animal studies.

**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. Waste/rejected product consisting of unused liquid product in sealed containers is a EPA Hazardous Waste #D001 (due to its ignitability). Dispose of all waste at a disposal facility as permitted by applicable government regulations. Dried waste and waste absorbed in a noncombustible media would not be hazardous if no longer combustible.

In case of any spill or release, consult all applicable state and local regulations. Observing all precautions noted above, absorb spilled product with an inert noncombustible material and remove for disposal. Remove all sources of ignition. Do not use metal shovels or other tools, which could create sparks.

**SECTION 14 - TRANSPORTATION INFORMATION**

**Proper Shipping Name:** Not Applicable  
**UN/NA Number:** Not Applicable  
**Domestic Hazard Class:** Nonhazardous  
**Surface Freight Classification:** Adhesives, Cement N.O.I  
**Label/Placard Required:** Not Applicable

(Note: this transportation classification is for over the road shipments. Shipments by other modes need to be evaluated.)

**SECTION 15 - REGULATORY INFORMATION**

**REGULATORY CHEMICAL LISTS:**

**CERCLA (Comprehensive Response Compensation and Liability Act):**  
**(None present unless listed below)**

<b><u>Chemical Name</u></b>	<b><u>CAS #</u></b>	<b><u>Wt %</u></b>	<b><u>CERCLA RQ</u></b>
Cumene	000098-82-8	0.1 Max	final RQ = 5000 pounds (2270 kg)
Xylenes (o-, m-, p- isomers)	001330-20-7	0.3 Max	final RQ = 100 pounds (45.4 kg)

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

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
1,2,4-Trimethylbenzene	000095-63-6	0-16
Cumene	000098-82-8	0-0.1
Xylenes (o-, m-, p- isomers)	001330-20-7	0-0.3

**National Volatile Organic Compound Emission Standards For Architectural Coatings:**

**Volatile Organic Content:** (gr/L) 244 gr/L

**WHMIS Classification(s):** D2 B

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:** This product does not contain 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>
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**New Jersey Hazardous Substance List(Identification threshold (0.1%)):**

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
1,2,4-Trimethylbenzene	000095-63-6	0-16
Cumene	000098-82-8	0-0.1
Xylenes (o-, m-, p- isomers)	001330-20-7	0-0.3

**Pennsylvania Hazardous Substance List(Identification threshold 0.01%):**

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
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**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	Not Determined	Not Determined	Yes	Yes

**SECTION 16 - OTHER INFORMATION**

**Non-Hazardous Ingredient Disclosure:**

<u>Chemical Name</u>	<u>CAS Number</u>
Prepared by:	EH&S Department
Approved by:	EH&S Department
Approved Date:	11/14/2005

**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."