

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: Bituthene Primer B2
MSDS ID Number: M-85796

MSDS Date: 10/30/07

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Bituthene Primer B2
MSDS Number: M-85796
Cancelled MSDS Number: M-85740
MSDS Date: 10/30/07
Chemical Family Name: Synthetic Rubber Solution in Organic Solvent.
Product Use: Horizontal and Vertical Grade Primer
Chemical Formula: Mixture-NA
CAS # (Chemical Abstracts): Mixture-NA
Service Number):

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) |
|------------------------------|-------------|----------------------|
| Aromatic Hydrocarbon Resin | Prop00010 | 50-100 |
| Ethyl benzene | 000100-41-4 | 10-25 |
| Toluene | 000108-88-3 | 1-10 |
| Xylenes (o-, m-, p- isomers) | 001330-20-7 | 25-50 |

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:

Warning!

Flammable liquid.

Vapors may ignite explosively.

Vapors are heavier than air and may travel to distant sources of ignition and flash back.

May be harmful if inhaled.

Inhalation of high vapor concentrations can cause CNS depression, unconsciousness or death.

Causes severe respiratory tract irritation.

May cause kidney, lung and liver tumors.

Causes eye burns.

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May be harmful if absorbed through skin.
Causes skin burns.
May be harmful if ingested.
Causes digestive tract irritation if ingested.
May produce cardiac sensitivity and developmental toxic effects.
May cause damage to brain, liver and kidneys.

HMIS Rating:

| | |
|--------------------------------|---------------------|
| Health: | 3* |
| Flammability: | 3 |
| Reactivity: | 0 |
| Personal Protective Equipment: | B,G (See Section 8) |

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. Ethyl benzene contained in this product has been shown to produce kidney, lung and liver tumors based on animal inhalation studies. Xylene contained in this product has been shown to affect the liver, kidney, lungs, spleen, heart and adrenals based on high exposure animal studies. Toluene has been shown to produce cardiac effects in laboratory animal studies. These studies show that inhalation of high levels produce cardiac sensitization which may cause fatal changes in heart rhythms. Toluene vapors have been linked to brain, liver, and kidney damage and to death.

Eye Contact:

Eye contact causes burns.
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.
May cause dermatitis.

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.

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Toluene has been shown to produce developmental toxic effects in humans and in animal studies.

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

| | |
|-----------------------------------|-------------------------|
| Flash Point: | ~80°F/27°C |
| Flash Point Method: | Tag Closed Cup (Xylene) |
| Lower Explosion Limit: | Not Available |
| Upper Explosion Limit: | Not Available |
| Auto-Ignition Temperature: | Not Available |

NFPA Rating:

| | |
|----------------------|---|
| Health: | 2 |
| Flammability: | 3 |
| Reactivity: | 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.

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MSDS Date: 10/30/07

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.

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. Absorb spilled product with an inert non combustible material and remove for disposal. Do not use metal shovels or other tools which could create sparks.

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.
 Respiratory protection is required.
 Forced ventilation is necessary in pits and other confined or poorly ventilated areas.
 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.
 Bond and ground containers when transferring product.
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 | |
| Aromatic Hydrocarbon Resin | - | - | - | - | - | - | - |
| Ethyl benzene | 100 ppm TWA | 125 ppm STEL | - | 100 ppm TWA; 435 mg/m3 TWA | 125 ppm STEL; 545 mg/m3 STEL | - | - |
| Toluene | 50 ppm TWA | - | - | 100 ppm TWA; 375 mg/m3 TWA | 150 ppm STEL; 560 mg/m3 STEL | - | - |
| Xylenes (o-, m-, p- isomers) | 100 ppm TWA | 150 ppm STEL | - | 100 ppm TWA; 435 mg/m3 TWA | 150 ppm STEL; 655 mg/m3 STEL | - | - |

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MSDS Date: 10/30/07

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.

Personal Protective Equipment:

Respiratory Protection: A chemical cartridge respirator with organic vapor cartridge is required. A dust/mist cartridge or prefilter may be needed in addition to control exposure to mist. 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. Wear goggles to prevent exposure to high vapor concentrations.

Work/Hygienic Practices: Use good personal hygiene practices. You and your personnel must completely understand the fire and explosion hazards before using flammable liquid based products. To avoid skin contact, wear recommended gloves (see skin protection recommendation) and wash with soap and water after handling. 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.

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MSDS ID Number: M-85796

MSDS Date: 10/30/07

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| Physical State: | Liquid |
| Appearance/Odor: | Smooth black liquid with aromatic solvent odor. |
| Odor Threshold: (ppm) | Xylene = 1.1 ppm |
| pH: | Not Available |
| Vapor Pressure: (Mm Hg) | 6-10 (Xylene) |
| Vapor Density: (Air = 1) | 3.7 Xylene |
| Solubility In Water: | Insoluble |
| Specific Gravity: (Water = 1) | 0.9 (Xylene) |
| Evaporation Rate: (Butyl Acetate = 1) | 0.75 (Xylene) |
| Boiling Point: | 280°F/138°C |
| Viscosity: | Unknown |
| Bulk Density: (Pounds/Cubic Foot)(Pcf) | Not Applicable |
| % Volatiles: (70°F) (21°C) | ~80 |

SECTION 10 - STABILITY AND REACTIVITY

| | |
|--|--|
| Chemical Stability: | Stable |
| Conditions To Avoid: | Heat, Sparks, Open flames, Oxidizing materials, Strong acids, rubber and plastics. |
| Hazardous Polymerization: | Will not polymerize. |
| Hazardous Decomposition Products: | Carbon dioxide and Carbon monoxide. |

SECTION 11 - TOXICOLOGICAL INFORMATION

| <u>Ingredient(No data unless listed.)</u> | <u>CAS Number</u> | <u>LD50 and LC50</u> |
|--|--------------------------|---|
| Ethyl benzene | 000100-41-4 | Oral LD50 Rat : 3500 mg/kg; Dermal LD50 Rabbit : 17800 uL/kg |
| Toluene | 000108-88-3 | Inhalation LC50 Rat : 49 gm/m ³ /4H; Inhalation LC50 Mouse : 400 ppm/24H; |
| Xylenes (o-, m-, p- isomers) | 001330-20-7 | Inhalation LC50 Rat : 5000 ppm/4H; Oral LD50 Rat : 4300 mg/kg; |

W. R. GRACE
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MSDS ID Number: M-85796

MSDS Date: 10/30/07

Carcinogenicity:

| Ingredient | IARC Group 1 | IARC Group 2A | IARC Group 2B | NTP Known | NTP Suspect | OSHA |
|------------------------------|--------------|---------------|---------------|-----------|-------------|------|
| Aromatic Hydrocarbon Resin | No | No | No | No | No | No |
| Ethyl benzene | No | No | Yes | No | No | No |
| Toluene | No | No | No | No | No | No |
| Xylenes (o-, m-, p- isomers) | No | No | No | No | No | No |

Ethyl benzene contained in this product has been shown to produce kidney, lung and liver tumors based on animal inhalation studies.

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.

Because of the Xylene content (CAS# 1330-20-7) this product is considered a hazardous substance under the U.S. EPA Clean Water Act. Spills of this product must be reported to the national Response Center at 1-800-424-8802. Spill reporting requirements and reportable quantities vary by region.

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.

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MSDS Date: 10/30/07

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name: Not Applicable
UN/NA Number: 3. UN3295, III
Domestic Hazard Class: Hydrocarbon liquid: NOS (Xylene, Ethyl Benzene)
Surface Freight Classification: Not Applicable
Label/Placard Required: Flammable Liquid

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> |
|------------------------------|--------------|-------------|---------------------------------|
| Ethyl benzene | 000100-41-4 | 10 | final RQ = 1000 pounds (454 kg) |
| Toluene | 000108-88-3 | 1 | final RQ = 1000 pounds (454 kg) |
| Xylenes (o-, m-, p- isomers) | 001330-20-7 | 45 | final RQ = 100 pounds (45.4 kg) |

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> |
|----------------------|--------------|-------------|---------------------|
|----------------------|--------------|-------------|---------------------|

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

| <u>Chemical Name</u> | <u>CAS #</u> | <u>Wt %</u> |
|------------------------------|--------------|-------------|
| Ethyl benzene | 000100-41-4 | 10 |
| Toluene | 000108-88-3 | 1 |
| Xylenes (o-, m-, p- isomers) | 001330-20-7 | 45 |

National Volatile Organic Compound Emission Standards For Architectural Coatings:

Volatile Organic Content: (gr/L) 440 g/l. This product meets the definition of "Quick Dry" under Architectural Coatings regulations.

WHMIS Classification(s): D2 B

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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> |
|----------------------|--------------|-------------|
|----------------------|--------------|-------------|

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

| <u>Chemical Name</u> | <u>CAS #</u> | <u>Wt %</u> |
|------------------------------|--------------|-------------|
| Ethyl benzene | 000100-41-4 | 10 |
| Toluene | 000108-88-3 | 1 |
| Xylenes (o-, m-, p- isomers) | 001330-20-7 | 45 |

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 | Not Determined | Not Determined | Not Determined |

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: 10/30/07

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."