

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: Waterproofing Membrane
MSDS ID Number: M-85814

MSDS Date: 11/10/08

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Waterproofing Membrane
MSDS Number: M-85814
Cancelled MSDS Number: M-85811
MSDS Date: 11/10/08
Chemical Family Name: Rubberized Asphalt Adhesive Sheet with Film and/or Mesh Comprising Various Components.
Product Use: Waterproofing Membrane.
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
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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)
Heavy Paraffinic Distillate Solvent Extract	064742-04-7	10-25
Petroleum Asphalt	008052-42-4	50-100
Styrene-Butadiene block copolymer	009003-55-8	10-25

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:

Warning!

Eye contact with rubberized asphalt residue on hands can cause irritation.
Skin contact with rubberized asphalt can cause irritation.
May be harmful if ingested.
May be harmful if absorbed through skin.
May cause teratogenic effects.
May produce local skin tumors.
Removal of release liner may generate a static electrical discharge (spark).
Release liners are slippery. Remove from work area immediately.

HMIS Rating:

Health:	2*
Flammability:	1
Reactivity:	0
Personal Protective Equipment:	B (See Section 8)

Potential Health Effects:

Inhalation: Due to the physical nature of this product, inhalation is unlikely. If heated, inhalation of vapor causes irritation, sore throat, coughing and breathing difficulty. Effects include: Nausea, headache, dizziness and irritation.
Eye Contact: Eye contact with rubberized asphalt residue on hands can cause irritation
Skin Contact: Skin contact causes irritation. Prolonged skin contact can result in dermatitis. Contact with petroleum oils in this product, may produce serious toxic effects including skin cancer, liver damage, blood effects and effects on the unborn based on tests with laboratory animals. Animal tests indicate that prolonged and repeated skin contact to the oils in this product may produce local skin tumors. Individuals with pre-existing skin disorders may be at increased risk for worsening their condition from exposure to this product.

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Skin Absorption: Product can be absorbed through the skin upon prolonged contact resulting in systemic effects such as nausea, headache, and general discomfort.

Ingestion: Due to the physical nature of this product, ingestion is unlikely.

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

Effects include: Nausea, vomiting and diarrhea.

Wash hands before eating.

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 hand-cream or abrasive soap. Never use solvents.

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.

Get immediate medical attention.

Ingestion: If swallowed, contact a physician immediately.

Never give anything by mouth to an unconscious person.

The decision to induce vomiting should only be made by 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.

Get immediate medical attention.

SECTION 5 - FIRE AND EXPLOSION HAZARD DATA

Flash Point: >210C (>410F)

Flash Point Method: Open Cup

Lower Explosion Limit: Not Available

Upper Explosion Limit: Not Available

Auto-ignition Temperature: Not Available

NFPA Rating:

Health: 1

Flammability: 1

Reactivity: 0

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

Special Fire Fighting Procedures:

Wear self-contained breathing apparatus and complete personal protective equipment when potential for exposure to vapors or products of combustion exist. Avoid breathing hazardous vapors or products of combustion, keep upwind. Isolate area and keep unnecessary people away. Prevent run-off from fire control or dilution from entering streams or drinking water supplies.

Unusual Fire and Explosion Hazards: None unless noted below.

Removal of release paper may create a static electric discharge (sparks). Do not remove where sparks may ignite flammable vapors.

SECTION 6 - ACCIDENTAL RELEASE MEASURES:

Spills/Leaks: Due to the physical nature of this product, spills are not possible.

SECTION 7 - HANDLING AND STORAGE

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

Practice good personal hygiene to avoid ingestion.

Use only with adequate ventilation.

Wash clothing before reuse.

Slippery when wet or covered with frost.

Do not apply where membrane odors may penetrate living areas.

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.

Release liners are slippery. Remove from work area immediately after membrane application.

Consistent with good roofing practice, always wear fall protection when working on roof decks.

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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	
Heavy Paraffinic Distillate Solvent Extract	-	-	-	-	-	-	-
Petroleum Asphalt	0.5 mg/m ³ TWA (inhalable fraction); (as benzene-soluble aerosol)	-	-	-	-	-	-
Styrene-Butadiene block copolymer	-	-	-	-	-	-	-

EXPOSURE GUIDELINES (CANADA)

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

Engineering Controls: Not generally required.

Personal Protective Equipment:

Respiratory Protection: Respiratory protection is not generally required. If exposure limits are exceeded, wear approved respiratory protection.

Skin Protection: Use oil impervious gloves to avoid prolonged or repeated contact with rubberized asphalt residue.

Eye Protection: Not required for normal use.

Work/Hygienic Practices: Use good personal hygiene practices.

Avoid rubbing eyes while handling. Due to the physical nature of this product, ingestion is unlikely. Incidental ingestion of residue on hands can be avoided by using good personal hygiene practices. This product contains compounds subject to exposure guidelines and/or identified as carcinogens. (See Sections 8 and 11). However, due to the physical nature of this product, these compounds are unlikely to reach exposure limits unless airborne dust or spray mist is created. 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.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid sheet
Appearance/Odor:	A black, rubberized asphalt adhesive layer on a grey/black plastic sheet with a paper or plastic release sheet. Petroleum odor.
Odor Threshold: (ppm)	Unknown
pH:	Not Applicable
Vapor Pressure: (Mm Hg)	Not Applicable
Vapor Density: (Air = 1)	Not Applicable
Solubility In Water:	Negligible
Specific Gravity: (Water = 1)	1.0 - 1.1
Evaporation Rate: (Butyl Acetate = 1)	Not Applicable
Boiling Point:	Not Applicable
Viscosity:	Not Available
Bulk Density: (Pounds/Cubic Foot)(Pcf)	~70
% Volatiles (gr/L): (70°F) (21°C)	Negligible

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:	Stable
Conditions To Avoid:	Heat, Oxidizing materials, Strong oxidizers and Water.
Hazardous Polymerization:	Will not polymerize.
Hazardous Decomposition	Carbon dioxide, Carbon monoxide, Sulfur oxides and Low

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Products:

molecular weight hydrocarbons.

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SECTION 11 - TOXICOLOGICAL INFORMATION

Ingredient(No data unless listed.) **CAS Number** **LD50 and LC50**

Carcinogenicity:

Ingredient	IARC Group 1	IARC Group 2A	IARC Group 2B	NTP Known	NTP Suspect	OSHA
Heavy Paraffinic Distillate Solvent Extract	Yes	No	No	No	No	Yes
Petroleum Asphalt	No	No	Yes	No	No	No
Styrene-Butadiene block copolymer	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: Not applicable.
Teratogenicity: Petroleum oils in this product have caused effects on the unborn based on tests with laboratory animals.
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.

SECTION 14 - TRANSPORTATION INFORMATION

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

SECTION 15 - REGULATORY INFORMATION

REGULATORY CHEMICAL LISTS:

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

Chemical Name **CAS #** **Wt %** **CERCLA RQ**

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%.):

Chemical Name **CAS #** **Wt %** **SARA 302 TPQ**

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

Chemical Name **CAS #** **Wt %**

National Volatile Organic Compound Emission Standards For Architectural Coatings:

Volatile Organic Content: (gr/L) Not Applicable

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: 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>
Heavy Paraffinic Distillate Solvent Extract	064742-04-7	21

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

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

SECTION 16 - OTHER INFORMATION

BITUTHENE® LOW TEMPERATURE WATERPROOFING MEMBRANE, MEMBRANE STRIPS
BITUTHENE® SYSTEM 4000 WATERPROOFING MEMBRANE, MEMBRANE STRIPS
PERM-A-BARRIER® WALL FLASHING, PERM-A-BARRIER® WALL MEMBRANE,
PERM-A-BARRIER® LOW TEMPERATURE MEMBRANE, PERM-A-BARRIER
DETAIL MEMBRANE, GRACE ICE & WATER SHIELD®,
GRACE ROOF DETAIL MEMBRANE, PITWRAP CW, GRACE® SELECT, VYCOR® V40 WEATHER
BARRIER STRIPS, GRACE VYCOR® PLUS TAPES, GRACE® BASIK™, GRACE VYCOR DECK PROTECTOR,
GRACE VYCOR ALL PURPOSE FLASHING, GRACE VYCOR ALUMINUM FLASHING,
PREPRUFE SCS DETAIL TAPE, GENERIC 40-MIL FLASHING LOG, PERM-A-BARRIER ALUMINUM FLASHING

Non-Hazardous Ingredient Disclosure:

<u>Chemical Name</u>	<u>CAS Number</u>
Prepared by:	EH&S Department
Approved by:	EH&S Department
Approved Date:	11/10/08

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."