

Safety Data Sheet

Printing date 03/09/2015

Version Number 1.2

Reviewed on 03/09/2015

1 Identification**Product identifier**Trade name: *Bituthene Liquid Membrane & Deck Prep Part B*

SDS ID Number: 583

Relevant identified uses of the substance or mixture and uses advised against
Specialty construction product. Not intended for other uses**Details of the supplier of the safety data sheet****Manufacturer/Supplier:**W.R. Grace & Co. -Conn.
62 Whittemore Avenue
Cambridge, MA 02140 USAGrace Canada, Inc.
294 Clements Road W.
Ajax, Ontario L1S 3C6 Canada**Information department:**Environmental Health & Safety
USA: +1-617-876-1400 (24 hours)
+1-800-354-5414 (8AM - 5PM) Not functional within Massachusetts
CAN: 1-905-683-8561 (24 hours)**Transport Emergency:** Chemtrec +1-800-424-9300 (24 hours)**2 Composition/information on ingredients****Chemical characterization: Mixtures****Description:** Mixture of the substances listed below with additional nonhazardous ingredients.**Hazardous components:**

26447-40-5	Methylenediphenyl diisocyanate, mixture of isomers	30-50%
101-68-8	Diphenylmethane-4,4'-di-isocyanate	30-50%
61788-32-7	Terphenyl plasticiser, hydrogenated	10-20%
78-40-0	Triethylphosphate	1.0-2.0%

Additional information: For the wording of the listed risk phrases refer to section 16.**3 Hazard(s) identification****Classification of the substance or mixture**

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause damage to organs through prolonged or repeated exposure.

Harmful if inhaled.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause respiratory irritation.

(Cont. on page 2)

USGHS

Safety Data Sheet

Printing date 03/09/2015

Version Number 1.2

Reviewed on 03/09/2015

Trade name: *Bituthene Liquid Membrane & Deck Prep Part B*

(Cont. from page 1)

GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms

GHS07 GHS08

Danger

Hazard-determining components of labeling:

Methylenediphenyl diisocyanate, mixture of isomers

Diphenylmethane-4,4'-di-isocyanate

Precautionary statements

Wear respiratory protection.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If on skin: Wash with plenty of water.

If eye irritation persists: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

If experiencing respiratory symptoms: Call a poison center/doctor.

NFPA ratings (scale 0 - 4)

Health = 1

Fire = 1

Reactivity = 1

HMIS-ratings (scale 0 - 4)

Health = *2

Flammability = 1

Reactivity = 1

4 First-aid measures

General information: Get medical advice/attention if you feel unwell.

After skin contact:

Immediately wash contaminated skin with soap or mild detergent and water. If this chemical soaks clothing, immediately remove clothing and wash skin.

After eye contact:

Rinse opened eye for several minutes under running water.

Rinse cautiously with water for several minutes.

Seek immediate medical advice.

After swallowing:

Wash out mouth with water

Rinse mouth.

Do not induce vomiting; immediately call for medical help.

(Cont. on page 3)

USGHS

Safety Data Sheet

Printing date 03/09/2015

Version Number 1.2

Reviewed on 03/09/2015

Trade name: *Bituthene Liquid Membrane & Deck Prep Part B*

(Cont. from page 2)

Never give anything by mouth to an unconscious person.

5 Fire-fighting measures**Special hazards arising from the substance or mixture** No further relevant information available.**Protective equipment:**

Wear self-contained breathing apparatus and complete personal protective equipment when potential for exposure to vapors or products of combustion exist. Water may be used to cool containers to prevent pressure build-up and possible auto-ignition or explosion. 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.

Additional information

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Methods and material for containment and cleaning up:

Contain and/or absorb spill with inert material (i.e. sand, vermiculite) then place in a suitable container.

Sweep up spilled product into receptacles.

Dispose contaminated material as waste according to section 13 of the SDS.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage**Handling:****Precautions for safe handling**

Open and handle receptacle with care.

Prevent formation of aerosols.

Avoid contact with skin.

Avoid contact with eyes.

Information about protection against explosions and fires: No special measures required.**Storage:****Information about storage in one common storage facility:** No special measures required.**Further information about storage conditions:** Keep receptacle tightly sealed.

(Cont. on page 4)

USGHS

Safety Data Sheet

Printing date 03/09/2015

Version Number 1.2

Reviewed on 03/09/2015

Trade name: *Bituthene Liquid Membrane & Deck Prep Part B*

(Cont. from page 3)

Specific end use(s) No further relevant information available.**8 Exposure controls/personal protection****Additional information about design of technical systems:** No further data; see item 7.**Components with limit values that require monitoring at the workplace:****101-68-8 Diphenylmethane-4,4'-di-isocyanate**

PEL (USA)	Ceiling limit value: 0.2 mg/m ³ , 0.02 ppm
REL (USA)	Long-term value: 0.05 mg/m ³ , 0.005 ppm Ceiling limit value: 0.2* mg/m ³ , 0.02* ppm *10-min
TLV (USA)	Long-term value: 0.051 mg/m ³ , 0.005 ppm

61788-32-7 Terphenyl plasticiser, hydrogenated

REL (USA)	Long-term value: 5 mg/m ³ , 0.5 ppm
TLV (USA)	Long-term value: 4.9 mg/m ³ , 0.5 ppm nonirradiated

78-40-0 Triethylphosphate

WEEL (USA)	Long-term value: 7.45 mg/m ³
------------	---

Additional information: The lists that were valid during the creation were used as basis.**Personal protective equipment:****General protective and hygienic measures:**

Avoid contact with the eyes and skin.

The usual precautionary measures for handling chemicals should be followed.

Breathing equipment:

MDI contained in mixed A and B components, has a very low vapor pressure and is not likely to exceed the permissible exposure limit (PEL) in unconfined spaces. Therefore, respiratory protection is not normally required in well ventilated areas except for individuals who are hypersensitive to isocyanates. It should also be noted that although chemical cartridge respirators may provide protection against isocyanate exposure, they are not approved for such use by NIOSH. This is because MDI has poor warning properties. (The level at which it can be detected by odor is significantly above the PEL.) In confined areas, indoors or where there is inadequate ventilation, supplied air (NIOSH Type TC-19C-XXX) or self-contained breathing apparatus (NIOSH Type TC-13F-XXX) may be required. 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.

Protection of hands:

Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product.

Material of gloves

The following glove materials are acceptable: Nitrile or Butyl rubber gloves should be worn to protect against MDI and oils contained in the mixed A and B components.

Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product.

Eye protection:

Safety glasses with side shield protection.

(Cont. on page 5)

USGHS

Safety Data Sheet

Printing date 03/09/2015

Version Number 1.2

Reviewed on 03/09/2015

Trade name: *Bituthene Liquid Membrane & Deck Prep Part B*

Safety glasses with side shields should be worn to prevent contact due to splashing. Under high vapor mist concentrations, tightly sealed goggles should be worn.

(Cont. from page 4)



A face shield should also be worn if there is potential exposure to splash or spray.

Body protection:

Protective work clothing

Use personal protective equipment as required.

Take off contaminated clothing and wash before reuse.

9 Physical and chemical properties

General Information**Appearance:**

Form:	Liquid
Color:	According to product specification
Odor:	Characteristic
Odour threshold:	Not determined.

pH-value (~): Not determined.

Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Not determined.
Flash point:	212 °C (414 °F)

Flammability (solid, gaseous): Not applicable.

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower:	0.4 Vol %
Upper:	Not determined.
VOC Content (max):	Not determined.

Vapor pressure: Not determined.

Density: (~) Not determined.

Relative density Not determined.

Vapour density Not determined.

Evaporation rate Not determined.

Solubility in / Miscibility with

Water: Not miscible or difficult to mix.
Not miscible or difficult to mix.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

Molecular weight Not applicable.

(Cont. on page 6)

USGHS

Safety Data Sheet

Printing date 03/09/2015

Version Number 1.2

Reviewed on 03/09/2015

Trade name: *Bituthene Liquid Membrane & Deck Prep Part B*

(Cont. from page 5)

Other information

These are typical values and do not constitute a specification.

10 Stability and reactivity**Thermal decomposition:** No decomposition if used according to specifications.**Incompatible materials:** Water and bases.**Hazardous decomposition products:**

Carbon monoxide and carbon dioxide

(possible HCN)

Other potentially hazardous products may also be formed.

Additional information: See section 7 for information on handling, storage and conditions to be avoided.**11 Toxicological information****Acute toxicity:****LD/LC50 values relevant for classification:****101-68-8 Diphenylmethane-4,4'-di-isocyanate**

Oral	LD50	> 10000 mg/kg (rat)
Dermal	LD50	> 9400 mg/kg (rabbit)
Inhalative	LC50, 4h	0.49 mg/l (rat)

Primary irritant effect:**on the skin:** Causes skin irritation.**on the eye:** Causes serious eye irritation.**inhalation:** May cause respiratory irritation.**Sensitization:**

Sensitization possible through inhalation.

Sensitization possible through skin contact.

Additional toxicological information:**Carcinogenic categories****IARC (International Agency for Research on Cancer) Human Carcinogenicity:**
Group 1- Positive, Group 2A- Probable, Group 2B- Possible, Group 3- Not Classifiable

101-68-8 | Diphenylmethane-4,4'-di-isocyanate

3

NTP (National Toxicology Program)**K–Known to be carcinogenic, R–May reasonably be anticipated to be carcinogenic**

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information**Aquatic toxicity:** No further relevant information available.

(Cont. on page 7)

USGHS

Safety Data Sheet

Printing date 03/09/2015

Version Number 1.2

Reviewed on 03/09/2015

Trade name: *Bituthene Liquid Membrane & Deck Prep Part B*

(Cont. from page 6)

Persistence and degradability No further relevant information available.**Behavior in environmental systems:****Bioaccumulative potential** No further relevant information available.**Additional ecological information:****General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations**Waste treatment methods** Comply with Federal, State and local regulations.**Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:**Recommendation:** Disposal must be made according to official regulations.**14 Transport information****UN-Number**

DOT, ADR, ADN, IMDG, IATA Not applicable.

UN proper shipping name

DOT, ADR, ADN, IMDG, IATA Not applicable.

Transport hazard class(es)

DOT, ADR, IMDG, IATA

Class Not applicable.

ADN

ADN/R Class: Not applicable.

Packing group

DOT, ADR, IMDG, IATA Not applicable.

Environmental hazards:**Marine pollutant:** No**Special precautions for user** Not applicable.**Transport/Additional information:**

DOT

Remarks: Not Regulated.

(Cont. on page 8)

USGHS

Safety Data Sheet

Printing date 03/09/2015

Version Number 1.2

Reviewed on 03/09/2015

Trade name: *Bituthene Liquid Membrane & Deck Prep Part B*

(Cont. from page 7)

UN "Model Regulation": -

15 Regulatory information**SARA (Superfund Amendments and Reauthorization Act)****Section 302/304 (extremely hazardous substances):**

None of the ingredients is listed.

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

101-68-8	Diphenylmethane-4,4'-di-isocyanate	30.9%
----------	------------------------------------	-------

SARA Section 312/Tier I & II Hazard Categories:

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

North America Chemical Inventory Status**TSCA (Toxic Substances Control Act - United States):**

All ingredients are listed or exempt from listing unless otherwise noted below.

CEPA (Canadian DSL):

All ingredients are listed or exempt from listing unless otherwise noted below.

Right to Know Ingredient Disclosure

26447-40-5	Methylenediphenyl diisocyanate, mixture of isomers
101-68-8	Diphenylmethane-4,4'-di-isocyanate
61788-32-7	Terphenyl plasticiser, hydrogenated
39310-05-9	Methylenebis(isocyanatobenzene) polymer
68956-74-1	Quaterphenyls

California Proposition 65**Chemicals known to cause cancer:**

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

Carcinogenicity Categories**EPA (Environmental Protection Agency)**

101-68-8	Diphenylmethane-4,4'-di-isocyanate	D, CBD
----------	------------------------------------	--------

TLV-ACGIH (THE American Conference of Governmental Industrial Hygienists)**Human Carcinogen - A1 Confirmed, A2 Suspected, A3 Unknown Relevance, A4 Not Classifiable**

None of the ingredients is listed.

NIOSH-Cancer (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

(Cont. on page 9)

USGHS

Safety Data Sheet

Printing date 03/09/2015

Version Number 1.2

Reviewed on 03/09/2015

Trade name: *Bituthene Liquid Membrane & Deck Prep Part B***Volatile Organic Compounds (VOC) reported per the Emission Standards for Architectural Coatings:**
(gr/L) 10 gr/L (as applied)

(Cont. from page 8)

16 Other information

"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."

Date of preparation / last revision 03/09/2015 / 1.1**The first date of preparation** 08/03/2006**Number of revision times and the latest revision date** 1.2 / 03/09/2015

USGHS