
SAFETY DATA SHEET

IMTECH RUBBER PRODUCTS

PermaFix - PART "A"

Section 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Products Name: PermaFix PART "A"
Chemical Family: Polyurethane Prepolymer Resin.
Chemical Name: Reaction product of a polyether polyol with diphenylmethane diisocyanate (MDI).
Applications: Protective polyurethane coating.

Supplier's Name: **IMTECH Rubber Products**
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Preparation Date of SDS: October 27, 2015
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Section 2 – HAZARD(S) IDENTIFICATION

WHMIS Classification

D2A VERY TOXIC MATERIALS causing other effects.
D2B Skin Sensitizer

Target Organs

Lungs

Other hazards which do not result in classification

Lachrymator.

GHS Classification

Acute toxicity, Inhalation (Category 4)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Respiratory sensitization (Category 1)
Skin sensitization (Category 1)
Specific target organ toxicity - single exposure (Category 3), Respiratory system
Specific target organ toxicity - repeated exposure, Inhalation (Category 2), Respiratory system

GHS Label elements, including precautionary statements

Pictogram



Signal word Danger

Hazard statement(s)

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H373 May cause damage to organs (Respiratory system) through prolonged or repeated exposure if inhaled.

Precautionary statement(s)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P280 Wear protective gloves.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.

HMIS Classification

Health hazard: 3

Chronic Health Hazard: *

Flammability: 1

Physical hazards: 0

Potential Health Effects

Inhalation Toxic if inhaled. Causes respiratory tract irritation.

Skin May be harmful if absorbed through skin. Causes skin irritation.

Eyes Causes eye irritation.

Ingestion May be harmful if swallowed.

Section 3- COMPOSITION / INFORMATION ON INGREDIENTS

	Cas No.	Percentage* (W/W)	Exposure Limits	
			ACGIH	OSHA PEL
Diphenylmethane diisocyanate	26447-40-5	10 - 30	.005 ppm Ceiling	0.02 ppm.

**Exact percentages are withheld as a trade secret however the health and environmental hazard effects stated in this SDS describe the effects of the highest concentration of each ingredient; in compliance with (ST/SG/AC.10/30/Rev.6) and (29 CFR 1910.1200).*

Section 4 - FIRST AID MEASURES

Eye Contact:	Flush eyes immediately with water for at least 20 minutes. Hold eyelids open during flushing. If irritation persists, repeat flushing. Obtain medical attention immediately.
Skin Contact:	Remove contaminated clothing. Wipe excess material from the skin. Wash skin with a polyglycol based (alcohol) skin cleanser or corn oil followed by soap and water. Obtain medical attention.
Inhalation:	Move victim to fresh air. Give artificial respiration ONLY if breathing has stopped. Give cardiopulmonary resuscitation (CPR) if there is no breathing AND no pulse. Obtain medical attention immediately.

Ingestion: If swallowed, seek medical attention immediately. Do not induce vomiting unless directed to do so by medical personnel.

Note to Physicians: May cause respiratory sensitization or asthma like symptoms. Bronchodilators, expectorants, and antitussives may be of help. Excessive exposure may aggravate pre-existing asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome). Persons receiving significant exposure should be observed for 24 to 48 hours for signs of respiratory distress. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. No specific antidote.

Routes of Entry: Eyes, skin, ingestion, inhalation, mist.

Section 5 – FIRE FIGHTING MEASURES

Flash Point: 200 °C
Flash Point Method: Closed Cup (PMCC, ASTM D93).
Auto Ignition Temp: Not available.
Flammable Limits in air (%): Not available.
Extinguishing Media: Use carbon dioxide, dry chemical, foam or water fog/spray. Do not use water stream (may spread fire).

Hazardous Decomposition/ Combustion Materials: Thermal decomposition products are toxic and may include hydrocarbons, oxides of carbon and nitrogen, hydrogen cyanide and traces of isocyanates.

Special Protective Equipment: Wear protective clothing and self-contained breathing apparatus.
Unusual Fire/Explosion Hazard: Contamination of isocyanates with water could lead to dangerous pressure inside closed containers by generation of carbon dioxide.

NFPA RATINGS: HEALTH 3; FLAMMABILITY 1; INSTABILITY: 1

Section 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures: Wear appropriate protective equipment. Refer to Section 8.

Environmental Precautionary Measures: Prevent entry into sewers or streams, dike if needed.

Procedure for Clean-Up: Prevent contamination of soil. Consult Local authorities. Isolate hazard area and restrict access. Stop the leak if it can be done without risk. Prevent contamination of waterways. Absorb with an inert dry material and place in an appropriate waste disposal container. Large spills, dike and pump into suitable containers. Clean up all residual with absorbent material. Place in appropriate container. Notify applicable government authority if release is reportable or could adversely affect the environment. Ventilate the area thoroughly.

Decontaminant: Supplies of suitable decontaminant/commercial decontaminant should always be kept available. Contain and cover the spillage with inert absorbent (sand, earth, vermiculite) and decontaminant/commercial decontaminant. Leave to react for at least 30 minutes. Shovel residues into open-top drums and remove for further decontamination if necessary. Clean area with water and additional decontaminant/commercial decontaminant. Test atmosphere for vapours to ensure safe working conditions before other personnel are allowed into the area.

Decontaminant Solution: Commercial solution or Water 90-95% + concentrated ammonia solution 5-10% + liquid detergent 0.2 – 2%.

Section 7 – HANDLING AND STORAGE

Handling: For industrial use only. Use only with adequate ventilation. Handle and open containers with care. Avoid contact with eyes, skin and clothing. Do not ingest. Keep the containers closed when not in use. Protect against physical damage. Use appropriate personal protective equipment. Use normal “good” industrial hygiene and housekeeping practices.

Other Precautions: Avoid contact with moisture and prolonged exposure to temperatures above 60 °C. Purge containers with dry nitrogen before resealing. Do not use spot heating devices such as band heaters or torches. Make sure contents are completely liquid and uniform before using.

Storage: Store in a cool, dry, well ventilated area. Keep containers tightly closed. Store under dry nitrogen. Isocyanate based products react with water, liberating carbon dioxide, which can lead to excessive pressure in closed containers and form solid, insoluble polymers. Contact with copper or copper alloys and galvanised surfaces must be avoided and valves etc. made of these materials must not be used in equipment for storing and handling diisocyanates. Do not store in open containers.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Local exhaust ventilation is required to maintain exposure to within applicable limits. Make up air should be supplied to balance air that is removed by local or general exhaust ventilation.

Respiratory Protection: If exposure exceeds occupational exposure limits, use an appropriate NIOSH approved respirator. In case of spill or leak resulting in unknown concentration, use a NIOSH approved supplied air respirator.

Gloves: Impervious chemical resistant gloves.

Skin Protection: Skin contact should be prevented through the use of suitable protective clothing, gloves and footwear, selected for conditions of use and exposure potential.

Eyes: Chemical goggles; also wear a face shield if splashing hazard exists.

Other Personal Protective Data: Ensure that eyewash stations and safety showers are proximal to the work station location.

Ingredients	Exposure Limit	Exposure Limit	Immediately Dangerous to Life or Health – IDLH
	ACGIH	OHSA	
Diphenylmethane diisocyanate	0.005 ppm	0.2 ppm (Ceiling)	Not Available

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid.
Color:	Yellowish.
Specific Gravity:	1.08 g/cc @ 20°C
Boiling Point:	Not applicable, decomposes.
Melting/Freezing Point:	Not available.
Vapor Pressure:	<0.0001 mmHg @ 25°C
Vapor Density (air = 1)	Not available
Volatile Organic Compounds:	No data available
Appearance:	Clear, colourless, viscous liquid.
Odor:	Characteristic – irritating at high temperatures
Odor Threshold:	0.005 ppm
Evaporation Rate:	Low

Section 10 – STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions see also Section 7.
Hazardous Polymerization:	Can occur at temperatures above 160 °C or in contact with water.
Conditions to Avoid:	Moisture, high heat.
Materials to Avoid:	Alcohols, strong oxidizing agents, acids, bases, ammonia, water.
Hazardous combustion Products:	Hydro carbons, oxides of carbon and nitrogen, hydrogen cyanide, and traces of isocyanates.

Section 11 – TOXICOLOGICAL INFORMATION

Toxicological Data:	Diphenylmethane diisocyanate (MDI)
Oral LD50:	> 2,000 mg/kg (Rat)
Dermal LD50:	> 2,000 mg/kg (Rabbit)
Inhalation LC50:	0.178 mg/L (rat, 4hr).
Skin Contact:	Severe Irritation (Rabbit)
Eye Contact:	Severe Irritation (Rabbit)
Sensitization:	Positive (guinea pig)
Carcinogenicity:	Not classified by ACGIH or IARC or NTP.
Mutagenicity:	Genetic toxicity Ames Salmonella: Positive.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicological Information:	Ecotoxicity – Fish Species Data	Acute Crustaceans Toxicity:	Ecotoxicity Freshwater Algae
Diphenylmethane diisocyanate (MDI):	LC50 (Zebra Fish) >1,000 mg/L	EC50 Water Flea >1,000 mg/L	EC50 – Bacteria >100 mg/L

Section 13 – DISPOSAL CONSIDERATIONS

Disposal of Waste Method:	Disposal of all wastes must be done in accordance with local, state/provincial and federal regulations.
Contaminated Packaging:	Empty containers should be recycled or disposed of through an

approved waste management facility.

Section 14 – TRANSPORT INFORMATION

Proper Shipping Name: This product is Not Regulated.
TDG (IATA and IMO): This product is Not Regulated.
Hazard Label / Placards: None

Section 15 – REGULATORY INFORMATION

U.S. TSCA Inventory Status: All compounds of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

Canadian DSL Inventory Status: All compounds of this product are either on the Domestic Substances List (DSL); the Non- Domestic Substances List (NDSL) or exempt.

Note: Not available.

<u>US Regulatory Rules</u>	CECLA/SARA Section 302:	SARA (311, 312) Hazard Class:	CERCLA/SARA Section 313:
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U-REPAIR-Part "A":	Not Listed	Listed	Listed
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California Proposition 65: Listed.

MA Right to Know List: Listed.

New Jersey Right-to-know List: Listed.

Pennsylvania Right to Know List: Listed.

WHMIS Hazardous Class: D2A VERY TOXIC MATERIALS causing other effects.
D2B Skin Sensitizer

NFPA RATINGS: HEALTH 3; FLAMMABILITY 1; INSTABILITY: 1

Section 16 – OTHER INFORMATION

All employees or contractors etc. who use this product must have access to this Safety Data Sheet.

This information is furnished without warranty, representation, inducement or licence of any kind, except that it is accurate to the best of IMTECH Rubber Products knowledge or is obtained from sources believed by IMTECH Rubber Products to be accurate. IMTECH Rubber Products makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use or reliance on same. Customers are encouraged to conduct their own tests.

DATE OF ISSUE: Oct. 27, 2015

HISTORY REVISION: SDS updated to comply with GHS regulations.

Replaces MSDS dated Dec 01, 2014.

PREPARED BY: IMTECH Rubber Products

END OF SDS