

Material Safety Data Sheet

1. Product and company identification

Produce Name: Polyguard 650 Mastic
Material uses: Refer to technical data sheet
Supplier/Manufacturer: Polyguard Products
3801 South Interstate 45
Ennis, TX 75119
Tel (800) 541-4994
In case of emergency: CHEMTREC, US: +1-800-424-9300 International: +1-703-527-3887

2. Hazards identification

Physical state: Paste
Odor: Mild aromatic odor
Potential acute health effects
Inhalation: May cause weakness, fatigue and dizziness. Vapor and/or mist may cause irritation to nose and throat. May cause respiratory tract irritation. May cause coughing and tightness in chest with difficulty in breathing.
Ingestion: May cause irritation of the mouth, pharynx, esophagus and stomach. May cause gastrointestinal irritation, nausea, vomiting.
Skin: Skin contact may cause irritation, itching and redness.
Eyes: Vapor and/or mist may cause eye irritation. May cause redness, tearing and itching.
Potential chronic health effects
Chronic effects: Prolonged and repeated contact may cause asthma like conditions, allergic skin reaction (Rash, hives-like, acne, itching) and respiratory and skin sensitization. This can be avoided by using the proper PPE. Repeated overexposure to vapors and/or material may injury the liver, kidneys and respiratory system unless suitable engineering controls and/or PPE and clothing are used.
Carcinogenicity: Not listed as a carcinogen.
Mutagenicity: No data available
Teratogenicity: No data available
Medical conditions aggravated by over-exposure: Pre-existing eye, skin, liver, kidney and respiratory disorders may be aggravated by exposure.

See toxicological information (section 11)

3. Composition/information on ingredients

United States		
Name	CAS number	%
Aromatic Polyurethane	Mixture	35-45 %
Polymer mixture		
Aromatic Hydrocarbon	64742-94-5	20-35 %
Residual trace amount of Toluene Diisocyanate	26471-62-5	<0.2 %
Carbon Black	1333-86-4	10-15 %

There are no additional ingredients present which within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

Eye contact:	Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water for at least 15 minutes. Keep eyelids open. Get immediate medical attention.
Skin contact:	Remove contaminated clothing. After contact with skin, wash immediately with plenty of warm soapy water. If symptoms develop, obtain medical attention. Contaminated clothing should be cleaned thoroughly before reuse.
Inhalation:	Remove patient from exposure, keep warm and at rest. Obtain immediate medical attention. If breathing is labored, oxygen should be given by administered by qualified personal. Apply artificial respiration if breathing has ceased or shows signs of failing.
Ingestion:	Do not induce vomiting unless directed by a physician. Never give anything by mouth to an unconscious person. If person is conscious, give plenty of water to drink. Seek medical attention immediately or contact poison control center.
Protection of first-aiders:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth to mouth resuscitation.
Notes to physician:	N/A

5. Fire-fighting measures

Flammability of the product:	Not considered flammable.
Extinguishing media	
Suitable:	Small fire- Use dry chemical, Carbon dioxide, halogenated.
Not suitable:	Do not use water. WATER used in large quantities will react vigorously with hot isocyanates.
Hazardous thermal decomposition products:	Decomposition products may include the following materials: Carbon Dioxide, Carbon Monoxide, Nitrous Oxide and HCN.
Special protective equipment:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full-piece face mask operating in a positive pressure mode. Splash goggles, full suit boots and gloves.
Special Remarks on Fire Hazards	<p>At higher temperatures pressure will build up in sealed container. Use water to cool containers exposed to fire. Use care when cooling to prevent contaminating containers with water. Water contamination of the product will lead to the generation of carbon dioxide. DO NOT RESEAL contaminated containers, as pressure build up may result causing the container to rupture.</p> <p>If containers are exposed to high temperature, vapors in the closed container can result in a pressure build up which may cause a rupture and fire hazard.</p> <p>Empty containers retain product residue (liquids/vapors) which can be dangerous. Do not pressurize, cut, weld, solder, drill, grind or expose to heat, flame, sparks, static electricity or other ignition sources.</p>

6. Accidental release measures

Personal precautions:	No actions shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personal from entering. Do not touch or walk through spilled material. Remove all sources of ignition. Avoid breathing vapor or mist. Provide adequate ventilation. Wear respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Notify applicable governmental authorities if release is reportable. The CERCLA RQ for Toluene Diisocyanate is 100 lbs.

6. Accidental release measures

Method for clean up

Small spill:

Clean up should only be performed by trained personnel. People dealing with major spillages should wear full protective clothing including appropriate respiratory protection. Evacuate the area.

Clean up uncured material using a solvent such as acetone. Place in a container, **DO NOT CLOSE THE WASTE CONTAINER AIR TIGHT!** If material has already cured, scrape if off and collect in a waste container. Dispose of via a licensed waste disposal contractor.

Large spill:

Clean up should only be performed by trained personnel. People dealing with major spillages should wear full protective clothing including appropriate respiratory protection. Evacuate the area.

Contain large spills by using a dike. Of sand or dirt. Place in a container, **DO NOT CLOSE THE WASTE CONTAINER AIR TIGHT!** Dispose of via a licensed waste disposal contractor

7. Handling and storage

Handling:

Avoid personal contact with the product. Put on appropriate personal protective equipment (see section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor, aerosols or mist. Do not ingest. Use only adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Open containers should be used within a day or two since it will start skinning.

Storage:

Store in accordance with local regulations. Keep containers properly sealed and when stored indoors, in a well ventilated area. Keep contents away from moisture. Due to reaction with water, producing CO₂ gas, a hazardous build up of pressure could result if contaminated containers are resealed. Do not resealed contaminated containers.

8. Exposure controls/personal protection

	United States
Product name	Exposure limits
Aromatic Polyurethane Polymer mixture	No data available
Aromatic Hydrocarbon	No data available
Toluene Diisocyanate (mixed isomers)	OSHA PEL CEIL: 0.14 mg/m ³ ACGIH TLV TWA: 0.05 ppm STEL: 0.02 ppm
Carbon black	NIOSH REL TWA:3.5 mg/m ³ OSHA PEL TWA: 3.5 mg/m ³ ACGIH TLV TWA: 3.5mg/m ³ 8 hour(s)

Consult local authorities for acceptable exposure limits.

8. Exposure controls/personal protection

Recommended monitoring procedure:	Conditions of use, adequacy of engineering or other control measure, and actual exposures will dictate the need for specific protective devices at your workplace.
Engineering measures:	Use local exhaust ventilation to maintain airborne concentrations below the TLV. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it. For guidance on engineering control measures refer to publications such as ACGIH current edition of "Industrial Ventilation, a manual of Recommended Practice."
Exposure controls:	Individuals with existing respiratory diseases such as chronic bronchitis, emphysema, or asthma like conditions should avoid exposure to polyisocyanates or related products during application and curing. KEEP AWAY FROM CHILDREN! Do not eat, drink, or smoke when working with this product.
Hygiene measures:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Personal protection	
Eyes	Chemical safety goggles. If potential for splashing, use a full face shield.
Skin	Tyvek ®, neoprene, butyl or nitrile rubber based clothing.
Respiratory	Wear an approved MSHA/NIOSH approved organic vapor or charcoal filtered cartridge respirator or a positive pressure, supplied air respirator with a full face or an air supplied hood.
Hands	Gloves- neoprene, nitrile rubber, butyl rubber.
Protective equipment	
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

Physical state:	Viscous paste, non sag consistency
Flash point	Closed cup: > 200 F (93.33 C) (Pensky Marten Closed cup)
Auto ignition temperature	Not available
Flammable limits	Not available
Color	Black
Odor	Mild aromatic odor
Boiling /Condensation Point	No data
Specific Gravity:	1.15-1.17 (water=1)
Vapor Pressure:	Not applicable
Vapor Density	Great than 1 [Air=1]
Solubility in water	Insoluble in water. Will react with water.
Percent solids by weight	> 99 %
VOC	Does not contain Volatile Organic Compound

10. Stability and reactivity

Stability:	The product is stable at room temperature.
Hazardous polymerization:	Will not occur under normal conditions.
Conditions to avoid:	High temperatures, contact with moisture. Material will react with moisture and/or high temperatures and may cause pressure build up in a closed container that could result in rupture of the container.
Materials to avoid:	Avoid water contact, alcohol, amines, acids, alkalis and high temperatures.

10. Stability and reactivity

Hazardous decomposition: Carbon Monoxide, carbon Dioxide, oxides of Nitrogen.

11. Toxicological information

Acute Toxicity

Product/ingredient name	Species	Dose	Result	Exposure
Toluene Diisocyanate	Rabbit	11 ppm	LC50 inhalation	4 hrs
Mixed isomers	Rat	10 ppm	LC 50 Inhalation	4 hrs
	Rat	5800 mg/kg	LD 50 Oral	-
Carbon Black	Rat	>15400 mg/kg	LD 50 Oral	-

Carcinogenicity classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Aromatic Polyurethane Polymer mixture	-	-	-	-	-	-
Aromatic Hydrocarbon	-	-	-	-	-	-
Toluene Diisocyanate	-	2 B	-	-	-	-
Mixed isomers	-	-	-	-	-	-
Carbon black	-	2 B	-	-	-	-

12. Ecological information

Environmental effects: No data available.

Aquatic ecotoxicity:

13. Disposal considerations

Waste disposal :

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to section 7: HANDLING AND STORAGE and section 8: EXPOSURE CONTROL/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transportation information

DOT Classification	Not regulated
TDG Classification	Not regulated
IMDG Class	Not regulated
IATA-DGR Class	Not regulated

15. Regulatory information

United States

U.S. Federal regulations:

United States Inventory (TSCA 8b): All components are listed or exempted.

SARA 311/312 MSDS Distribution- Chemical inventory –hazard identification

Acute health hazards, chronic health hazards

SARA 313 reportable ingredients:

Toluene Diisocyanate (mixed isomers) CAS # 26471-62-5

SARA 313

Form R- Reporting Requirements

Product name

Toluene Diisocyanate (mixed isomers) CAS # 26471-62-

Supplier notification

Toluene Diisocyanate (mixed isomers) CAS # 26471-62-5

EPCRA section 313 (40 CFR 372) CERCLA (Comprehensive Environmental Response, Compensation and liability Act) Toluene Diisocyanate (mixed isomers) (CAS 26471-62-5) has been a 100 lb RQ (reportable quantity). Any spill or release above the RQ must be reported to the National response Center. (800-424-8802).

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

California Prop. 65

Toluene Diisocyanate CAS 3 26471-62-5

Canada

WHMIS (Canada):

Class B- 3: Combustible liquid

Class D-2B: Material causing other toxic effects (toxic)

16. Other information

Product is based on fully reacted Toluene Diisocyanate (TDI) + Polypropylene based polymer and aromatic hydrocarbon. Trace amounts of TDI (<0.2%) may be present in this product. TDI is a material that may reasonably be anticipated to be a carcinogen based on NTP technical report on rats. This product also contains carbon black pigment similar to one categorized by International Agency for Research on cancer (IARC) as causing cancer in mice after prolonged and repeated contact. Any potential hazard can be minimized by the use of personal protective equipment, clothing and hygienic practices.

Hazardous Material

Information System (USA)

Health -	2
Fire Hazard-	1
Physical Hazard	1
Personal Protection	

HAZARD RATING

4- Extreme

3-Serious

2- Moderate

1- Slight

0- Minimal

See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

16. Other information

References: ANSI Z400.5, MSDS standard, 2004.-Manufacturer's Material Safety Data Sheet- 29CFR Part1910.1200
OSHA MSDS Requirements.-49 CFR Table List of Hazardous Materials, UN #, Proper Shipping Names,
PG. – NIOSH Pocket Guide.

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