

MATERIAL SAFETY DATA SHEET

Ashland

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 Date Prepared: 03/03/05  
 Date Printed: 05/26/05  
 MSDS No: 303.0279263-006.005

PLIOGRIP 7779 PREPOLYMER

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: PLIOGRIP 7779 PREPOLYMER  
 General or Generic ID: POLYURETHANE PREPOLYMER

Company

Ashland  
 Ashland Distribution Co. &  
 Ashland Specialty Chemical Co.  
 P. O. Box 2219  
 Columbus, OH 43216  
 614-790-3333

Emergency Telephone Number:

1-800-ASHLAND (1-800-274-5263)  
 24 hours everyday

Regulatory Information Number:  
 1-800-325-3751

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
METHYLENE PHENYLENE ISOCYANATE	101-68-8	35.0
URETHANE PREPOLYMER	Trade Secret	19.0- 23.0
MDI HOMOPOLYMER	25686-28-6	12.0- 16.0
CALCIUM SODIUM ALUMINOSILICATE	1344-01-0	8.0- 12.0
TALC	14807-96-6	8.0- 12.0
URETHANE PREPOLYMER	Trade Secret	3.0- 7.0
AMORPHOUS SILICA	68611-44-9	2.0- 6.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

May cause mild eye irritation. Symptoms include stinging, tearing, and redness.

Skin

May cause mild skin irritation. Symptoms may include redness and burning of skin. Additional symptoms of skin contact may include: allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects).

Swallowing

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

Inhalation

Breathing of vapor or mist is possible. Breathing aerosol and/or mist is possible when material is sprayed. Aerosol and mist may present a greater risk of injury because more material may be present in the air than from vapor alone.

Symptoms of Exposure

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), cough, tight feeling in the chest, headache, shortness of breath. Exposure to this product (or a component) may cause an allergic reaction (narrowing of the air passages of the lungs resulting in difficult breathing, tightness in the chest, coughing and wheezing) in some sensitive individuals.

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Other symptoms of an allergic reaction may include itchy and watery eyes, runny and stuffy nose, sweating, flushing, hives, rapid heart rate, and lowered blood pressure.

#### Target Organ Effects

Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: respiratory sensitization, effects on lung function.

#### Developmental Information

This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

#### Cancer Information

In a two-year inhalation study in rats, exposure to polymeric methylene bisphenylisocyanate (MDI) aerosol caused a significant increase in benign (noncarcinogenic) lung tumors, along with a single carcinogenic lung tumor, at the highest dose only (6 mg/m<sup>3</sup>). The tumors occurred along with irritation of the respiratory tract and the accumulation of a yellow material in the lungs. There was irritation only at 1.0 mg/m<sup>3</sup> and no effect at 0.2 mg/m<sup>3</sup>. MDI is not listed as carcinogenic by IARC, NTP or OSHA. This product may contain non-asbestiform talc. Inhalation of non-asbestiform talc has been shown to cause lung and adrenal cancer in female rats and adrenal gland cancer in male rats. It did not cause cancer in male or female mice similarly exposed. Talc is not listed as a carcinogen by the International Agency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration.

#### Other Health Effects

No data

#### Primary Route(s) of Entry

Inhalation, Skin contact, Eye contact.

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## 4. FIRST AID MEASURES

#### Eyes

If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.

#### Skin

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

#### Swallowing

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

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**Inhalation**

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

**Note to Physicians**

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: respiratory tract, skin, lung (for example, asthma-like conditions).

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**5. FIRE FIGHTING MEASURES**

**Flash Point**

> 200.0 F (93.3 C) SETA

**Explosive Limit**

Not applicable

**Autoignition Temperature**

No data

**Hazardous Products of Combustion**

May form: carbon dioxide and carbon monoxide, hydrogen cyanide, nitrogen compounds, various hydrocarbons.

**Fire and Explosion Hazards**

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

**Extinguishing Media**

water fog, carbon dioxide, dry chemical.

**Fire Fighting Instructions**

DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

**NFPA Rating**

Health - 2, Flammability - 1, Reactivity - 1

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**6. ACCIDENTAL RELEASE MEASURES**

**Small Spill**

Absorb liquid on vermiculite, floor absorbent or other absorbent material.

**Large Spill**

Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Neutralize spill with an aqueous solution of ammonia. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into

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containers.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Skin Protection

Wear resistant gloves such as: nitrile rubber, butyl rubber, To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Respiratory Protections

If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Exposure Guidelines

Component

METHYLENE PHENYLENE ISOCYANATE (101-68-8)  
OSHA PEL 0.020 ppm - Ceiling  
OSHA VPEL 0.020 ppm - Ceiling  
ACGIH TLV 0.005 ppm - TWA

URETHANE PREPOLYMER  
No exposure limits established

MDI HOMOPOLYMER (25686-28-6)  
No exposure limits established

CALCIUM SODIUM ALUMINOSILICATE (1344-01-0)  
No exposure limits established

TALC (14807-96-6)  
OSHA PEL 0.000 - TWA  
OSHA VPEL 2.000 mg/m3 - TWA respirable dust (less than 1% crystalline silica)  
ACGIH TLV 2.000 mg/m3 - TWA

URETHANE PREPOLYMER  
No exposure limits established

AMORPHOUS SILICA (68611-44-9)  
No exposure limits established

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9. PHYSICAL AND CHEMICAL PROPERTIES

**Boiling Point**

No data

**Vapor Pressure**

(for product) < .010 mmHg @ 77.00 F

**Specific Vapor Density**

> 1.000 @ AIR=1

**Specific Gravity**

1.288 @ 77.00 F

**Liquid Density**

10.720 lbs/gal @ 77.00 F  
1.288 kg/l @ 25.00 C

**Percent Volatiles**

No data

**Evaporation Rate**

SLOWER THAN ETHYL ETHER

**Appearance**

No data

**State**

LIQUID

**Physical Form**

No data

**Color**

No data

**Odor**

No data

**pH**

Not applicable

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10. STABILITY AND REACTIVITY

**Hazardous Polymerization**

Product can undergo hazardous polymerization. Avoid contact with strong alkalis, strong mineral acids, and water.

**Hazardous Decomposition**

May form: carbon dioxide and carbon monoxide, hydrogen cyanide, nitrogen compounds, various hydrocarbons.

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**Chemical Stability**

Stable.

**Incompatibility**

Avoid contact with: excessive heat, strong alkalis, strong mineral acids, water.

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**11. TOXICOLOGICAL INFORMATION**

No data

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**12. ECOLOGICAL INFORMATION**

No data

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**13. DISPOSAL CONSIDERATION**

**Waste Management Information**

Destroy by liquid incineration in accordance with applicable regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution Company, IC&S Environmental Services Group at 800-637-7922.

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**14. TRANSPORT INFORMATION**

**DOT Information - 49 CFR 172.101**

**DOT Description:**

NON-REGULATED BY D.O.T.

**Container/Mode:**

55 GAL DRUM/TRUCK PACKAGE

**NOS Component:**

None

**RQ (Reportable Quantity) - 49 CFR 172.101**

Product Quantity (lbs) Component

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14224

METHYLENE BISPHENOL ISOCYANATE (MDI)

**Other Transportation Information**

The Transport Information may vary with the container and mode of shipment.

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**15. REGULATORY INFORMATION**

**US Federal Regulations**

**TSCA (Toxic Substances Control Act) Status**

TSCA (UNITED STATES) The intentional ingredients of this product are listed.

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16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

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