

PLIOGRIP® 8000 ADHESIVE
118504

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone	1-800-ASHLAND (1-800-274-5263)

Product name	PLIOGRIP® 8000 ADHESIVE
Product code	118504
Product Use Description	No data

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid

WARNING! MAY BE HARMFUL IF INHALED OR SWALLOWED. MAY CAUSE ALLERGIC SKIN OR RESPIRATORY REACTION. MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

Potential Health Effects

Exposure routes

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

Eye contact

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin contact

Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use. May cause allergic skin reaction.

Ingestion

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

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Inhalation

This product contains 4,4'-diphenylmethane diisocyanate (MDI). Breathing MDI may cause an allergic respiratory reaction with difficult breathing and chest pain. The onset of respiratory symptoms may be delayed for several hours after exposure. Previously sensitized individuals should avoid exposure to all diisocyanates because exposure to even very small amounts can cause asthma-like attacks in these individuals.

Aggravated Medical Condition

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

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects), stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), runny nose, sneezing, Cough, bronchitis, Headache, chest pain, Difficulty in breathing, lung edema (fluid buildup in the lung tissue), 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. 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 Organs

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: nasal damage, lung damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: effects on lung function

Carcinogenicity

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/m³). 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/m³ and no effect at 0.2 mg/m³. MDI is not listed as carcinogenic by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA). This product may

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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 (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive hazard

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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Concentration
4,4'-DIPHENYLMETHANE DIISOCYANATE	101-68-8	>=15-<20%
TALC	14807-96-6	>=15-<20%
POLY(METHYL NEPHENYLENE) POLYISOCYANATE	9016-87-9	>=1.5-<5%

4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion

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, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Notes to physician

Hazards: Pulmonary edema may be delayed.

Treatment: No information available.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water spray, Dry powder, Carbon dioxide (CO₂)

Hazardous combustion products

carbon dioxide and carbon monoxide, nitrogen compounds, Hydrogen cyanide (hydrocyanic acid), Isocyanates, nitrogen oxides (NO_x)

Precautions for fire-fighting

Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). 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. Polymerization will take place under fire conditions. If polymerization occurs in a closed container, there is a possibility it will rupture violently. Cool storage container with water, if exposed to fire.

Flammability Class for Flammable Liquids

Combustible Liquid Class IIIB

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

No data

Environmental precautions

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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.

Methods for cleaning up

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 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.

Storage

Store in tightly closed containers. Do not allow moisture or water contamination of product. Contamination with water can cause dangerous pressure buildup in resealed containers. Do not reseal containers if contamination is suspected. Store in a cool, dry, ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

**4,4'-DIPHENYLMETHANE
DIISOCYANATE**

101-68-8

ACGIH	time weighted average	0.005 ppm
NIOSH	Recommended exposure limit (REL):	0.005 ppm
NIOSH	Recommended exposure limit (REL):	0.05 mg/m3
NIOSH	Ceiling Limit Value and Time Period (if specified):	0.020 ppm
NIOSH	Ceiling Limit Value and Time Period (if specified):	0.2 mg/m3
OSHA Z1	Ceiling Limit Value:	0.02 ppm
OSHA Z1	Ceiling Limit Value:	0.2 mg/m3
OSHA Z1A	Ceiling Limit Value:	0.02 ppm
OSHA Z1A	Ceiling Limit Value:	0.2 mg/m3
US CA OEL	Time Weighted Average (TWA)	0.005 ppm

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US CA OEL Permissible Exposure Limit (PEL):
Time Weighted Average (TWA) 0.051 mg/m3
Permissible Exposure Limit (PEL):

TALC		14807-96-6	
ACGIH	time weighted average	2 mg/m3	Respirable fraction.
NIOSH	Recommended exposure limit (REL):	2 mg/m3	Respirable.
OSHA Z1A	time weighted average	2 mg/m3	Respirable dust.
Z3	time weighted average	0.1 mg/m3	Respirable.
Z3	time weighted average	0.3 mg/m3	Total dust.
US CA OEL	Time Weighted Average (TWA)	2 mg/m3	Respirable dust.
	Permissible Exposure Limit (PEL):		
ACGIH NIC	time weighted average	1 mg/m3	Respirable fraction.

General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Eye protection

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and body protection

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Wear resistant gloves such as:

- Nitrile rubber
- butyl-rubber

Respiratory protection

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A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection. Diisocyanates have poor warning properties. An air-purifying respirator with an organic vapor cartridge and an N95 prefilter can be used safely and effectively to reduce exposure, provided that appropriate cartridge change schedules are developed to ensure that cartridges are changed before breakthrough occurs. The employer is required to select the appropriate respirator for each situation and must consider potential exposure to chemicals in addition to diisocyanates.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Form	No data
Colour	No data
Odour	No data
Boiling point/boiling range	200.00 °C / 392 °F @ 6.66 hPa
pH	No data
Flash point	(>)200.1 °F / 93.4 °C
Evaporation rate	< 1 (Ethyl Ether)
Explosion limits	No data
Vapour pressure	0.01 hPa @ 68 °F / 20 °C
Vapour density	(>) 1
Density	1.220 g/cm ³ @ 68 °F / 20 °C 10.14 lb/gal @ 77 °F / 25 °C
Solubility	No data
Partition coefficient: n-octanol/water	No data
log Pow	no data available
Autoignition temperature	No data

10. STABILITY AND REACTIVITY

Stability
Stable.

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Conditions to avoid

Exposure to moisture., Freezing temperatures.

Incompatible products

Acids, Bases, Amines, Alcohols, Copper alloys, alkalis, Strong oxidizing agents, aluminum, Ammonia, Iron, Fluorine, chlorinated rubber, chlorine trifluoride, Ethylene oxide, water, Zinc

Hazardous decomposition products

carbon dioxide and carbon monoxide, nitrogen compounds, Hydrogen cyanide (hydrocyanic acid), Isocyanates, nitrogen oxides (NOx)

Hazardous reactions

Product can undergo hazardous polymerization. Product will not undergo hazardous polymerization.

Thermal decomposition

No data

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

4,4'-DIPHENYLMETHANE DIISOCYANATE	LD 50 Rat: 9,200 mg/kg
TALC	no data available
POLY(METHYL NEPHENYLENE) POLYISOCYANATE	LD 50 Rat: > 10,000 mg/kg

Acute inhalation toxicity

4,4'-DIPHENYLMETHANE DIISOCYANATE	LC 50 Rat: 0.369 mg/l , 4 h
TALC	no data available
POLY(METHYL NEPHENYLENE) POLYISOCYANATE	LC 50 Rat: 369 - 490 mg/m3 , 4 h

Acute dermal toxicity

4,4'-DIPHENYLMETHANE DIISOCYANATE	LD 50 Rabbit: > 7,900 mg/kg
TALC	no data available
POLY(METHYL NEPHENYLENE) POLYISOCYANATE	LD 50 Rabbit: > 10,000 mg/kg

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12. ECOLOGICAL INFORMATION

Aquatic toxicity

Acute and Prolonged Toxicity to Fish

No data

Acute Toxicity to Aquatic Invertebrates

No data

Environmental fate and pathways

No data

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

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's Environmental Services Group at 800-637-7922. Dispose of in accordance with all applicable local, state and federal regulations.

14. TRANSPORT INFORMATION

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

California Prop. 65

WARNING! This product contains a chemical known in the State of California to cause cancer.

QUARTZ / SAND

SARA Hazard Classification Acute Health Hazard

SARA 313 Component(s)

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4,4'-DIPHENYLMETHANE 101-68-8 19.68%
DIISOCYANATE

POLY(METHYL 9016-87-9 3.55%
NEPHENYLENE)
POLYISOCYANATE

New Jersey RTK Label Information

URETHANE PREPOLYM NJTS 800986-5515P
4,4'-DIPHENYLMETHANE DIISOCYANATE 101-68-8
TALC 14807-96-6
POLYMER NJTS 254504001-5759
Scavenger NJTS 254504001-5709
POLY(METHYL NEPHENYLENE) POLYISOCYANATE 9016-87-9

Pennsylvania RTK Label Information

URETHANE PREPOLYM NJTS 800986-5515P
4,4'-DIPHENYLMETHANE DIISOCYANATE 101-68-8
TALC 14807-96-6
POLYMER NJTS 254504001-5759
Scavenger NJTS 254504001-5709
POLY(METHYL NEPHENYLENE) POLYISOCYANATE 9016-87-9

Reportable quantity - Product

US. EPA CERCLA Hazardous Substances (40 CFR 302) 25395 lbs

Reportable quantity - Components

4,4'-DIPHENYLMETHANE 101-68-8 5000 lbs
DIISOCYANATE
TALC 14807-96-6 none
POLY(METHYL NEPHENYLENE) 9016-87-9 none
POLYISOCYANATE

	Health	Flammability	Reactivity	Other
HMIS	2*	1	1	
NFPA	3	1	1	

16. OTHER INFORMATION

ASHLAND
SAFETY DATA SHEET

Page: 11
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Print Date: 7/19/2010
MSDS Number: R0228287
Version: 1.7

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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. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).