

Material Safety Data Sheet



DURA PRO[®]

an IFS brand

NFPA	HMIS / WHMIS	PPE	Transport Symbol						
	<table border="1"><tr><td>Flammability</td><td>1</td></tr><tr><td>Health Hazard</td><td>2</td></tr><tr><td>Stability</td><td>1</td></tr></table>	Flammability	1	Health Hazard	2	Stability	1		
Flammability	1								
Health Hazard	2								
Stability	1								

Revision Date 22-Jul-2013

Revision Number 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name UH-2004-05 (V)
Product Type Polyurethane adhesive.
Manufactured by: IFS Industries, Inc.
400 Orrton Avenue
P.O. Box 1053
Reading, Pennsylvania 19603
U.S.A.
Emergency Contact Number CHEMTREC (800) 424-9300
Telephone for Information (610) 378-1381

2. HAZARDS IDENTIFICATION

Emergency Overview

MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION
MOLTEN ADHESIVE MAY CAUSE SEVERE BURNS
MAY CAUSE ALLERGIC SKIN AND RESPIRATORY REACTION

Appearance Opaque

Physical State Solid

Odor Odorless

OSHA Regulatory Status This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential Health Effects
Principle Routes of Exposure Eye contact, Skin contact, Inhalation.

Acute Toxicity

Eyes	Molten adhesive in eyes may cause severe and permanent damage. Vapors may also produce eye irritation.
Skin	Molten adhesive may cause severe burns. Repeated or prolonged skin contact may result in allergic sensitization.
Inhalation	May cause allergic skin and respiratory tract reaction. As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the TLV. Chronic over exposure to isocyanates has been reported to cause lung damage.
Ingestion	Ingestion can cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

**Chronic Effects
Chronic Toxicity**

Prolonged exposure may cause chronic effects. Repeated contact may cause allergic reactions in very susceptible persons.

Aggravated Medical Conditions

.Eye, skin, and respiratory disorders.

Environmental Hazard

See Section 12 for additional Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No	Weight %
Methylene bisphenyl isocyanate (MDI)	101-68-8	2 - 4

Component	OSHA PEL	ACGIH TLV
Methylene bisphenyl isocyanate (MDI) 101-68-8 (2 - 4)	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m ³	TWA: 0.005 ppm

4. FIRST AID MEASURES

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Contact with molten material: Cool with cold water immediately. Do not remove adhesive. Seek immediate medical attention/advice.
Skin Contact	Wash skin with soap and water. Contact with molten material may cause severe burns. Immediately cool affected skin as long as possible with cold water. Do not remove clothing if adhering to skin. Removal of solidified molten material from skin requires medical assistance. Seek immediate medical attention/advice.
Inhalation	Move to fresh air. Continuous breathing of vapors above molten material may cause irritation. Move to fresh air in case of accidental inhalation of vapors or decomposition products. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Immediate medical attention is required.
Ingestion	Do not induce vomiting without medical advice. Immediate medical attention is required.
Notes to Physician	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flammable Properties	Not flammable
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Flash Point	>160°C >400°F
Suitable Extinguishing Media	Water spray, dry chemical, carbon dioxide (CO ₂), or foam
Hazardous Combustion Products	Carbon oxides

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

NFPA	Health Hazard 2	Flammability 1	Stability 1	Physical and Chemical Hazards N/A
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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wear protective gloves/clothing and eye/face protection
Methods for Containment	Prevent further leakage or spillage if safe to do so
Methods for Cleaning Up	Pick up and transfer to properly labeled containers

7. HANDLING AND STORAGE

Handling	Handle in accordance with good industrial hygiene and safety practice
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines This product, as supplied, contains the following materials with occupational exposure limits established by the region specific regulatory bodies

Components	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methylene bisphenyl isocyanate (MDI)	TWA: 0.005 ppm	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m ³	IDLH: 75 mg/m ³ Ceiling: 0.020 ppm Ceiling: 0.2 mg/m ³ TWA: 0.005 ppm TWA: 0.05 mg/m ³

Engineering Measures	Showers Eyewash stations Ventilation systems
Eye/Face Protection	Eye protection
Skin and Body Protection	Wear protective gloves/clothing
Respiratory Protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved organic vapour respiratory protection should be worn
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Opaque	Odor	Odorless
Physical State	Solid	pH	Not applicable

Flash Point	>160°C	Flash point (°F) VALUE	>400°F
Autoignition Temperature	No data available	Boiling Point/Range	>392 °F
Melting Point/Range		180 - 200°F	
Freezing point	Not applicable	Flammability Limits in Air	Not applicable
Explosion Limits	Not applicable	VOC Content	No VOC
Specific Gravity	1.12		
HAPS data	No HAPS		

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions
Incompatible Products	Strong oxidizing agents.
Conditions to Avoid	Exposure to water. Excessive heat.
Hazardous Decomposition Products	Carbon monoxide (CO). Carbon dioxide (CO ₂).
Hazardous Reactions	Hazardous polymerization does not occur

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information	Damaging by inhalation, by contact with the skin and by ingestion
Irritation	Repeated or prolonged exposure may cause irritation of eyes and skin

Components	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methylene bisphenyl isocyanate (MDI)	9200 mg/kg (Rat)		

Chronic Toxicity

Chronic Toxicity	Prolonged exposure may cause chronic effects. Repeated contact may cause allergic reactions in very susceptible persons.
Carcinogenicity	Contains no ingredient listed as a carcinogen

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990

CERCLA

This material, as supplied, contains the following substance(s) regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Components	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Methylene bisphenyl isocyanate (MDI)	5000 lb	

U.S. State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Components	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Methylene bisphenyl isocyanate (MDI)	X	X	X	X	X

International Regulations

Components	Carcinogen Status	Exposure Limits
Methylene bisphenyl isocyanate (MDI)		Mexico: TWA= 0.005 ppm Mexico: TWA= 0.02 ppm Mexico: TWA= 0.051 mg/m ³ Mexico: TWA= 0.2 mg/m ³

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

D2A Very toxic materials

D2B Toxic materials

Components	NPRI
Methylene bisphenyl isocyanate (MDI)	X

16. OTHER INFORMATION

Revision Date

22-Jul-2013

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS