



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		Not regulated
	Flammability	1							
	Health Hazard	2							
	Stability	1							

Revision Date 07-Feb-2012

Revision Number 4

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** AF-2130

**Manufactured by:** Dural, a division of Multibond, Inc.  
550 Marshall Avenue  
Dorval, Quebec  
Canada H9P 1C9

**Emergency Contact Number** CANUTEC (613) 996-6666

**Telephone for Information** (514) 636-6230

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

Harmful by inhalation, in contact with skin and if swallowed  
Irritating to eyes

**Appearance** Tan

**Physical State** Viscous liquid

**Odor** Sweet

**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**

Severely irritating to eyes.

**Skin**

Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

**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**

Harmful if swallowed. Not an expected route of exposure.

### 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

<b>Hazardous Components</b>		
<b>Components</b>	<b>CAS-No</b>	<b>Weight %</b>
Methylene bisphenyl isocyanate (MDI)	101-68-8	1 - 5
C10-13 isoparaffin	68551-17-7	5 - 10
Polymethylene polyphenylene isocyanate	9016-87-9	1 - 5

<b>Component</b>	<b>OSHA PEL</b>	<b>ACGIH TLV</b>
Methylene bisphenyl isocyanate (MDI) 101-68-8 ( 1 - 5 )	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m <sup>3</sup>	TWA: 0.005 ppm

### 4. FIRST AID MEASURES

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
<b>Skin Contact</b>	Wash skin with soap and water. Remove and wash contaminated clothing before re-use. Seek immediate medical attention/advice.
<b>Inhalation</b>	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.
<b>Ingestion</b>	Do not induce vomiting without medical advice. Immediate medical attention is required.
<b>Notes to Physician</b>	Treat symptomatically

### 5. FIRE-FIGHTING MEASURES

<b>Flammable Properties</b>	Not flammable
<b>Flash Point</b>	>61°C
<b>Suitable Extinguishing Media</b>	Water spray, dry chemical, carbon dioxide (CO <sub>2</sub> ), or foam
<b>Hazardous Combustion Products</b>	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

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

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

## 7. HANDLING AND STORAGE

<b>Handling</b>	Handle in accordance with good industrial hygiene and safety practice
<b>Storage</b>	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 <sup>3</sup>	IDLH: 75 mg/m <sup>3</sup> Ceiling: 0.020 ppm Ceiling: 0.2 mg/m <sup>3</sup> TWA: 0.005 ppm TWA: 0.05 mg/m <sup>3</sup>

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Tan	<b>Odor</b>	Sweet
<b>Physical State</b>	Viscous liquid	<b>pH</b>	Not applicable
<b>Flash Point</b>		>61°C	
<b>Autoignition Temperature</b>	Not applicable	<b>Boiling Point/Range</b>	Not applicable
<b>Melting Point/Range</b>	No data available	<b>Freezing point</b>	Not applicable
		<b>Flammability Limits in Air</b>	Not applicable
<b>Explosion Limits</b>	Not applicable		
<b>Specific Gravity</b>	1.25 - 1.29	<b>VOC Content</b>	No VOC

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under recommended storage conditions
<b>Incompatible Products</b>	Strong oxidizing agents.
<b>Conditions to Avoid</b>	Exposure to water. Excessive heat.

**Hazardous Decomposition Products** Carbon oxides. Nitrogen oxides (NOx).

**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

**13. DISPOSAL CONSIDERATIONS**

**Waste Disposal Method** Dispose of contents/container in accordance with local regulation

**14. TRANSPORT INFORMATION**

**DOT** Not regulated

**TDG** Not regulated

**MEX** Not regulated

**IATA** Not regulated

**IMDG/IMO** Not regulated

**Special Provisions** The shipping classification in this section are for bulk packages only. Shipping classification may difer for non-bulk packaging. Refer to shipping documents for proper package shipping classification.

## 15. REGULATORY INFORMATION

### International Inventories

<b>TSCA</b>	Complies
<b>DSL</b>	Complies
<b>EINECS/ELINCS</b>	Does not Comply
<b>ENCS</b>	Does not Comply
<b>IECSC</b>	Does not Comply
<b>KECL</b>	Does not Comply
<b>PICCS</b>	Does not Comply
<b>AICS</b>	Complies

### U.S. Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains the following chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Components	CAS-No	Weight %	SARA 313 - Threshold Values %
Methylene bisphenyl isocyanate (MDI)	101-68-8	1 - 5	1.0

#### **SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

#### **Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

#### **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, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

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 <sup>3</sup> Mexico: TWA= 0.2 mg/m <sup>3</sup>

**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**

- B3 Combustible liquid
- D1A Very toxic materials
- D2A Very toxic materials
- D2B Toxic materials

Components	NPRI
Methylene bisphenyl isocyanate (MDI)	X

**16. OTHER INFORMATION**

**Prepared By** Verified by Quality Control Department

**Revision Date** 07-Feb-2012

**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**