






since 1895

Material Safety Data Sheet

NFPA	WHMIS	PPE	Transport Symbol
			

Preparation Date 19-Dec-2006

Revision Date 18-Oct-2010

Revision Number 7

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name White-Knight™
Product Code 7829
UN-No NA 1993

Contact Manufacturer
 The Garland Company, Inc.
 3800 East 91st. Street
 Cleveland, Ohio 44105-2197
 Ph: (800) 762-8225 Fax: (216) 641-0633

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 1296 Martin Grove Rd.
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Emergency Telephone Number 1-800-762-8225 (24 Hrs.)

2. HAZARDS IDENTIFICATION

Emergency Overview

Harmful by inhalation, in contact with skin and if swallowed

Appearance White.

Physical State Liquid.

Odor Petroleum distillates.

Mexico - Grade Moderate risk, Grade 2

Potential Health Effects

Principle Routes of Exposure Inhalation, Eye contact, Skin contact.

Acute Effects

Eyes

Contact with eyes may cause irritation.

Skin

May cause eye/skin irritation. May cause sensitization by skin contact.

Inhalation	Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Inhalation of vapours in high concentration may cause irritation of respiratory system.
Ingestion	Harmful if swallowed.
Chronic Effects	Prolonged exposure may cause chronic effects.
See Section 11 for additional Toxicological information.	
Aggravated Medical Conditions	Not available
Interactions with Other Chemicals	Not available
Potential Environmental Effects	See Section 12 for additional Ecological information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

Chemical Name	CAS-No	Weight %	North American Hazard Indicator
Methylene bisphenol isocyanate (MDI)	101-68-8	1 - 5	1
Toluene diisocyanate	26471-62-5	0.1 - 1	1
D-Limonene	5989-27-5	5 - 10	1
Petroleum naphtha, light aromatic	64742-95-6	5 - 10	1
Stoddard solvent	8052-41-3	10 - 30	1

4. FIRST AID MEASURES

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
Skin Contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.
Inhalation	Move to fresh air.
Ingestion	Do not induce vomiting without medical advice. Do not induce vomiting. Call a physician or Poison Control Centre immediately.
Notes to Physician	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Foam. Dry chemical. Dry powder. Carbon dioxide (CO ₂).
Unsuitable Extinguishing Media	Do not use a solid water stream as it may scatter and spread fire.
Hazardous Combustion Products	Carbon monoxide, Carbon dioxide (CO ₂), Hydrocarbons.
Explosion Data	

Sensitivity to mechanical impact	No
Sensitivity to static discharge	Yes

Specific Hazards Arising from the Chemical

Combustible material. Keep product and empty container away from heat and sources of ignition.

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 2****Flammability 2****Instability 1**

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Evacuate personnel to safe areas. Remove all sources of ignition. Ensure adequate ventilation. Use personal protective equipment.
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Keep out of waterways.
Methods for Containment	Contain with inert absorbant material
Methods for Cleaning Up	Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.
Other Information	Not applicable

7. HANDLING AND STORAGE

Handling	Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Remove all sources of ignition.
Storage	Keep away from open flames, hot surfaces and sources of ignition. Keep tightly closed in a dry and cool place. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	Ontario TWAEV	Mexico
Methylene bisphenol isocyanate (MDI)	TWA: 0.005 ppm	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m ³	CEV: 0.8 µmol/m ³ CEV: 0.02 ppm TWA: 0.2 µmol/m ³ TWA: 0.005 ppm	TWA: 0.2 mg/m ³ TWA: 0.051 mg/m ³ TWA: 0.005 ppm TWA: 0.02 ppm
Toluene diisocyanate	TWA: 0.005 ppm STEL: 0.02 ppm		CEV: 0.02 ppm CEV: 0.8 µmol/m ³ TWA: 0.005 ppm TWA: 0.2 µmol/m ³	
Stoddard solvent	TWA: 100 ppm	TWA: 2900 mg/m ³ TWA: 500 ppm	TWA: 525 mg/m ³	STEL: 200 ppm STEL: 1050 mg/m ³ TWA: 523 mg/m ³ TWA: 100 ppm

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methylene bisphenol isocyanate (MDI)	9200 mg/kg Rat		
Toluene diisocyanate	3360 mg/kg Rat	10000 mg/kg Rabbit	0.1 mg/L Rat 4 h 13.9 ppm Rat 4 h 66 ppm Rat 1 h
D-Limonene	4400 mg/kg Rat	2000 mg/kg Rabbit	
Petroleum naphtha, light aromatic	8400 mg/kg Rat	2000 mg/kg Rabbit	3400 ppm Rat 4 h 5.2 mg/L Rat 4 h

Chronic Toxicity

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA	Mexico
Toluene diisocyanate		Group 2B	Reasonably Anticipated	X	

12. ECOLOGICAL INFORMATION

Ecotoxicity

No information available.

Petroleum naphtha, light aromatic

Water Flea Data

Daphnia magna EC50=6.14 mg/L (48 h)

Persistence/Degradability

Not available

Bioaccumulation/ Accumulation

Not available

Mobility in Environmental Media

Not available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method

Dispose of in accordance with local regulations.

Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal.

US EPA Waste Number

D001

Chemical Name	RCRA
Toluene diisocyanate - 26471-62-5	waste number U223

14. TRANSPORT INFORMATION

DOT	
Hazard Class	3
UN-No	NA 1993
Packing Group	III
Special Provisions	Not Regulated for non-bulk packaging of 450 liters (119 gallons) or less (DOT 49 CFR 173.150(f))
Description	Combustible Liquid, n.o.s.
TDG	Not regulated
Subsidiary Class	
MEX	Not regulated
Subsidiary Class	
Packing Group	
ICAO	Not regulated
Subsidiary Class	
IATA	Not regulated
Subsidiary Class	
IMDG/IMO	Not regulated
Subsidiary Class	

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	CHINA	KECL	PICCS	AICS
Methylene bisphenol isocyanate (MDI)	X	X	-	X	-	X	X	X	X	X
Toluene diisocyanate	X	X	-	X	-	X	X	X	X	X
D-Limonene	X	X	-	X	-	X	X	X	X	X
Petroleum naphtha, light aromatic	X	X	-	X	-	-	X	X	X	X
Stoddard solvent	X	X	-	X	-	-	X	X	X	X

TSCA	Complies
DSL	Complies
NDSL	Complies
EINECS	Complies
ELINCS	Does not Comply
ENCS	Does not Comply
CHINA	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

USA

Federal Regulations**SARA 313**

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

Chemical Name	SARA 313 - Threshold Values
Methylene bisphenol isocyanate (MDI) (CAS #: 101-68-8)	1.0
Toluene diisocyanate (CAS #: 26471-62-5)	0.1%

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

This product does not contain any HAPs.

Chemical Name

Methylene bisphenol isocyanate (MDI) (CAS #: 101-68-8)

State Regulations**California Proposition 65**

WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

Chemical Name	CAS-No	Category	Type
Toluene diisocyanate	26471-62-5	Carcinogen	

State Right-to-Know

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Methylene bisphenol isocyanate (MDI)	X	X	X	X	X
Toluene diisocyanate	X		X		
Stoddard solvent	X	X	X		X

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

D2A Very toxic materials

Chemical Name	NPRI
Methylene bisphenol isocyanate (MDI)	X
Toluene diisocyanate	X

16. OTHER INFORMATION

Preparation Date

19-Dec-2006

Revision Date 08-Oct-2009

Revision Summary Not available

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