

US EPA Resource Conservation and Recovery Act (RCRA) composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):  
If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

#### STATE RIGHT-TO-KNOW INFORMATION:

For details of your regulatory requirement you should contact the appropriate agency in your state. This product contains trace amounts of phenyl isocyanate (CAS# 103-71-9) and monochlorobenzene (CAS# 108-90-7) as impurities.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

CAS NO.	Component(s)	% (by wt.)
9016-87-9	Polymeric Diphenylmethane (pMDI)	45 – 55 %
101-68-8	4,4-Diphenylmethane Diisocyanate (MDI)	25 – 35 %
26447-40-5	Diphenylmethane Diisocyanate (MDI) mixed isomers	10 – 20 %

New Jersey Environmental Hazardous Substances List and/or New Jersey, RTK Special Hazardous Substances Lists:

CAS NO.	Component(s)	% (by wt.)
9016-87-9	Polymeric Diphenylmethane (pMDI)	45 – 55 %
101-68-8	4,4-Diphenylmethane Diisocyanate (MDI)	25 – 35 %

California Prop. 65: To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

#### Section 16 – Other Information

HMS RATINGS:	Health	Flammability	Reactivity
	2*	1	1

0=Minimal; 1=Slight; 2=Moderate; 3=Serious; 4=Severe

The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication. It is not intended to constitute performance information concerning the product. No Express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein.

To determine applicability or effects of any law or regulation with respect to the product, user should consult his legal advisor or the appropriate government agency.

Date Modified: 3/10/08  
GSP/bn

## Material Safety Data Sheet

#### Section 1 – Chemical Product and Company Identification

PRODUCT NAME: Boss Polyurethane Part 2  
PRODUCT USE: Component of Polyurethane  
EFFECTIVE DATE: 3/10/08

Wholesale Dental Supply and Manufacturing  
15031 Parkway Loop, Ste. D  
Tustin, CA 92780  
(877) 258-7545

#### Section 2 – Hazardous Ingredients

CAS NO.	HAZARDOUS INGREDIENTS(S)	% (BY WT.)	ACGIH TLV
*	Proprietary Polyol Blend	up to 30%	Not Established
6846-50-0	2,2,4-trimethyl-1,3-pentanediol diisobutylate	up to 30%	Not Established
	Isomers of Di-(methylthio)toluenediamine (DMTDA):		
102093-68-5	1,3-Benzenediamine, 4-methyl-2,8-bis(methylthio)-	1 – 2%	Not Established
104983-85-9	1,3-Benzenediamine, 2-methyl-4,6-bis(methylthio)-	1 – 2%	Not Established

\* Chemical identity of this component is a trade secret.

#### Section 3 – Hazards Identification

ROUTES OF ENTRY: Eye Contact, Skin Contact, Inhalation, Ingestion

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE:

EYE CONTACT: May cause slight eye irritation or slight corneal damage in some individuals.

SKIN CONTACT: Repeated exposure may cause skin dryness or cracking. Prolonged exposure may cause slight irritation. A single prolonged exposure is not likely to result in skin absorption in harmful amounts.

INHALATION: Vapor or mist, in excess of permissible concentrations, or in unusually high concentrations generated from spraying, heating the material or as from exposure in poorly ventilated areas or confined spaces, may cause irritation of the nose and throat, headache, nausea, and drowsiness.

INGESTION: If large quantities are swallowed, abdominal discomfort, nausea and diarrhea may occur.

ASPIRATION may occur during swallowing or vomiting resulting in lung damage.

CHRONIC EFFECTS: Upon repeated contact, slight skin irritation is possible. A two year feeding study in rats showed DMTDA cause effects in the pancreas, liver, thyroid and eyes. An increase in the number of tumors in the liver and thyroid of male rats and in the liver and possibly mammary gland of female rats was found. Contains materials which may cause cancer based on animal data.

#### Section 4 – First Aid Measures

EYE CONTACT: Flush thoroughly with water for 15 minutes. Consult a physician.

SKIN CONTACT: Wash with soap and water. Remove contaminated clothing. (Wash before reuse.)

INHALATION: Remove victim to fresh air. Seek medical advice if symptoms persist.

INGESTION: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

NOTE TO PHYSICIANS: Treatment based on judgement of the physician in response to reactions of the patient.

#### Section 5 – Fire Fighting Measures

FLASH POINT: > 200 F

EXTINGUISHING MEDIA: Apply alcohol-type or all-purpose-type foams by manufacturer's recommended techniques for large fires. Use CO<sub>2</sub> or dry chemical media for small fires.

SPECIAL FIRE FIGHTING PROCEDURES: Do not direct a solid stream of water or foam into burning molten material, this may cause spattering and spread the fire.

HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO<sub>2</sub>

#### Section 6 – Accidental Release Measures

SPILLS, LEAKS, OR RELEASES: Soak up small spills with absorbent material. Larger spills should be collected for disposal.

#### Section 7 – Handling and Storage

STORAGE PRECAUTIONS: Keep container tightly closed to protect from contamination. Protect from atmospheric moisture by maintaining a nitrogen atmosphere.

HANDLING PRECAUTIONS: Use standard industrial practices. After handling, wash hands before eating or smoking.

#### Section 8 – Exposure Controls/Personal Protection

EYE PROTECTION: Use chemical goggles.

Skin Protection: Use gloves impervious to this material when prolonged or frequently repeated contact could occur.

RESPIRATORY PROTECTION: For most conditions, no respiratory protection should be needed; however, if handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator.

VENTILATION: Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

#### Section 9 – Chemical and Physical Properties

MOLECULAR FORMULA: Not applicable (mixture)

PHYSICAL FORM: Liquid

COLOR: White

ODOR: Odorless

BULK DENSITY: Not Established

SPECIFIC GRAVITY: Not Established  
VISCOSITY: Not Established

#### Section 10 – Stability and Reactivity

STABILITY: This is stable material.

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITIES: Strong oxidizing materials, acids, alkalies. Reacts exothermally with isocyanates.

DECOMPOSITION PRODUCTS: Depending on temperature, air supply and presence of other materials hazardous decomposition products, may include but are not limited to: aldehydes, ketones, organic acids, polymer fragments and oxides of carbon.

#### Section 11 – Toxicology Information

Not Established.

#### Section 12 – Ecological Information

Do not allow entry into soil, waterways or waste water.

#### Section 13 – Disposal Considerations

WASTE DISPOSAL METHOD: Waste disposal should be in accordance with existing federal, state or local environment control laws.

EMPTY CONTAINER PRECAUTIONS: Empty containers retain product residue; observe all precautions for product. Do not heat or cut empty container with electric or gas torch because toxic vapors and gases are formed. Do not reuse without thorough commercial cleaning and reconditioning. If container is to be disposed, ensure all product residues are removed prior to disposal.

#### Section 14 – Transportation Information

LAND TRANSPORTATION DOT: Not regulated in Non-Bulk Containers

SEA TRANSPORTATION: Not regulated in Non-Bulk Containers

AIR TRANSPORTATION: Not regulated in Non-Bulk Containers

#### Section 15 – Regulatory Information

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material. To determine applicability or effects of any law or regulation with respect to the product, user should consult his legal advisor or the appropriate government agency.

UNITED STATES FEDERAL REGULATIONS:

US EPA CERCLA Hazardous Substances (40 CFR 302):

Not Evaluated

SARA Section 311/312 Hazard Categories:

Not Evaluated

US EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III

Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):

Not Evaluated

US EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III

Section 313 Toxic Chemicals (40 CFR 372.65) – Supplier Notification Required:

Not Evaluated

STATE RIGHT-TO-KNOW INFORMATION:

For details of your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

Not Evaluated

New Jersey Environmental Hazardous Substances List and/or New Jersey, RTK Special Hazardous

Substances Lists:

Not Evaluated

California Prop. 65: This product contains the chemicals listed below, which the State of California has found to cause cancer, birth defects or reproductive harm.

Benzene (trace)

Toluene (trace)

#### Section 16 – Other Information

HMS RATINGS:	Health	Flammability	Reactivity
	2	1	0

0=Minimal; 1=Slight; 2=Moderate; 3=Serious; 4=Severe

The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication. It is not intended to constitute performance information concerning the product. No Express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein.

To determine applicability or effects of any law or regulation with respect to the product, user should consult his legal advisor or the appropriate government agency.

Date Modified: 3/10/08  
GSP/bn

# ETI EMPIRE DIRECT

2895 E. Blue Star Street  
Anaheim, CA 92806

800-451-7778

## Material Safety Data Sheet

### Section 1 – Chemical Product and Company Identification

RODUCT NAME: Boss Polyurethane Part 1  
RODUCT USE: Component of Polyurethane  
FFECTIVE DATE: 3/10/08

/olesale Dental Supply and Manufacturing  
5031 Parkway Loop, Ste. D  
ustin, CA 92780  
177) 258-7545

### Section 2 – Hazardous Ingredients

AS NO.	HAZARDOUS INGREDIENTS(S)	% (BY WT.)	ACGIH TLV
318-87-9	Polymeric Diphenylmethane (pMDI)	45 – 55 %	Not Established
31-68-9	4,4'-Diphenylmethane Diisocyanate (MDI)	25 – 35 %	0.005 PPM TWA
8447-40-5	Diphenylmethane Diisocyanate (MDI) mixed isomers	10 – 20 %	Not Established

### Section 3 – Hazards Identification

#### ACUTE HEALTH HAZARDS

HALATION: Diisocyanate vapors or mist concentration above the TLV or PEL, can irritate the mucous membranes in the respiratory tract (nose, throat, lungs) causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing obstruction). Persons with a preexisting, nonspecific bronchial hyperreactivity can respond to concentrations below the TLV or PEL with similar symptoms as well as asthma attack or asthma-like symptoms. Effect may be delayed several hours. These effects are usually reversible.

SKIN: Causes irritation with symptoms of reddening, itching, and swelling. Persons previously sensitized can experience allergic skin reaction with symptoms of reddening, itching, swelling and rash. Irritated material is difficult to remove. Contact with MDI can cause discoloration.

EYES: Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause temporary corneal injury. Vapor or aerosol may cause irritation with symptoms of burning and tearing.

INGESTION: May cause irritation; Symptoms may include abdominal pain, nausea, vomiting, and diarrhea.

#### CHRONIC HEALTH HAZARDS

HALATION: As a result of previous repeated overexposures or a single large dose, certain individuals may develop sensitization to diisocyanates (asthma or asthma-like symptoms) that may cause them to react to a later exposure to diisocyanates at levels well below the TLV or PEL. These symptoms, which can include chest tightness, wheezing, cough, shortness of breath or asthmatic attack, could be immediate or delayed up to several hours after exposure. Extreme asthmatic reactions can be life threatening. Similar to many non-specific asthmatic responses, there are reports that once sensitized in individual can experience these symptoms upon exposure to dust, cold air or other irritants. This increased lung sensitivity can persist for weeks and in severe cases for several years. Sensitization can be permanent. Chronic overexposure to diisocyanates has also been reported to cause lung damage (including fibrosis, decrease in lung function that may be permanent).

SKIN: Prolonged contact can cause reddening, swelling, rash, and, in some cases, skin sensitization. Animal tests on MDI indicate skin contact alone may lead to an allergic respiratory reaction.

EYES: Prolonged exposure may cause conjunctivitis.

### Section 4 – First Aid Measures

HALATION: Remove patient from exposure, keep warm and at rest. Obtain medical attention. Administer oxygen or artificial respiration as needed. Asthmatic symptoms may develop and may be immediate or delayed up to several hours. Extreme asthmatic reactions can be life threatening.

SKIN CONTACT: Remove contaminated clothing. Wash affected areas thoroughly with soap and water. If irritation, redness, or a burning sensation develops and persists, obtain medical advice. Contaminated clothing should be thoroughly cleaned before reuse. For severe exposures, immediately jet under safety shower and begin rinsing.

EYE CONTACT: Immediately flush eyes with running water for a minimum of 15 minutes. Hold eyelids open during flushing. If irritation persists repeat flushing and obtain medical attention IMMEDIATELY.

INGESTION: Do NOT induce vomiting. Provided the patient is conscious, wash out their mouth with water. Refer person to medical personnel for immediate attention.

NOTE TO PHYSICIANS: Eyes: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparation as needed. Workplace vapors could produce reversible corneal epithelial edema impairing vision. Skin: This compound is a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn. Ingestion: Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of the compound. Inhalation: Treatment is essentially symptomatic. An individual having a dermal or pulmonary sensitization reaction to this material should be removed from further exposure to any diisocyanate.

### Section 5 – Fire Fighting Measures

EXTINGUISHING MEDIA: Dry chemical, carbon dioxide (CO2), foam, water spray for large fires.

FIRE FIGHTING PROTECTIVE EQUIPMENT: Fire fighters should wear NFPA compliant structural firefighting protective equipment, including self-contained breathing apparatus and NFPA compliant helmet, hood, boots and gloves. Avoid contact with product. Decontaminate equipment and protective clothing prior to reuse. During a fire, isocyanate vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. Exposure to heated diisocyanates can be extremely dangerous.

FIRE AND EXPLOSION HAZARDS: Closed container may rupture under heat of fire or when contents are contaminated with water (CO2 is formed). Keep fire-exposed containers cool with a cool-water spray and reduce the risk of rupture. Apply water from a safe distance as the reaction between water and hot diisocyanate can be vigorous.

### Section 6 – Accidental Release Measures

SPILLS, LEAKS, OR RELEASES: Clean up should only be performed by trained personnel. People dealing with major spillages should wear full protective clothing including respiratory protection. Evacuate the area. Prevent further leakage, spillage or entry into drains. Contain and absorb large spillages onto an inert, non-flammable adsorbent carrier (such as earth or sand). Shovel into open-

top drums or plastic bags for further decontamination, if necessary. Apply lid loosely and allow containers to vent for 72 hours to let carbon dioxide (CO2) escape. Wash the spillage area clean with liquid decontaminant. Test atmosphere for MDI vapor. Test surface for contamination. Neutralize small spillages with decontaminant. Remove and dispose of residues. Notify applicable government authorities if release is reportable.

#### DECONTAMINATION:

NEUTRALIZATION SOLUTIONS: Colorimetric Laboratories Inc. (CLI) decontamination solution. A mixture of 75% water, 20% non-ionic surfactant (e.g. Poly-tergent SL-62, Tergitol TMN-10) and 5% n-propanol. A mixture of 80% water, 20% non-ionic surfactant (e.g. Poly-tergent SL-62, Tergitol TMN-10). A mixture of 90% water, 3-8% ammonium hydroxide or concentrated ammonia, and 2% liquid detergent.

USE OF DECONTAMINATION SOLUTION: Apply and allow deactivation material to stand for at least 30 minutes before shoveling into drums. Do not tighten the bungs.

### Section 7 – Handling and Storage

STORAGE TEMPERATURE: Ideal storage temperature is 16-30°C (60-86°F).

STORAGE REQUIREMENTS: If material is stored at temperatures above 86 F, it will generate pressure within the container from carbon dioxide gas. Prior to opening, carefully inspect the container. If the container is bulging, or there are any other indications of pressure within the container, do not open the container. Care should be taken whenever opening container in case of a pressure build up. Slow removal of bung closure or lid should safely remove pressure from a non-bulging drum. Observe safety precautions whenever opening a new container. Do not breathe vapors, mists or dusts. Use adequate ventilation to keep airborne isocyanate levels below the exposure limits. Wear respiratory protection if material is heated, sprayed, used in a confined space, or if the exposure limit is exceeded. Warning properties (irritation of the eyes, nose and throat or odor) are not adequate to prevent overexposure from inhalation. Wash thoroughly after handling. Do not breathe smoke and gases created by overheating or burning this material. Decomposition products can be highly toxic and irritating. Store in tightly closed containers to prevent moisture contamination. Do not reseat if contamination is suspected.

OTHER INFORMATION: Keep stocks of decontaminant (See Section 6) readily available.

### Section 8 – Exposure Control and Personal Protection

ENGINEERING CONTROLS: Use local exhaust ventilation to maintain airborne concentrations below the TLV. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it. Follow guidelines in the ACGIH publication "Industrial Ventilation". Monitoring for airborne diisocyanate should become part of the overall employee exposure characterization program.

NIOSH, OSHA and others have developed sampling and analytical methods.

RESPIRATORY PROTECTION: Airborne MDI concentrations greater than the ACGIH TLV-TWA (TLV) or OSHA PEL-C (PEL) can occur in inadequately ventilated environments when MDI is sprayed, aerosolized, or heated. In such cases, respiratory protection must be worn. The type of respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection standard (29 CFR 1910.134). The type of respiratory protection available includes (1) an atmosphere-supplying respirator such as a self-contained breathing apparatus (SCBA) or a supplied air respirator (SAR) in the positive pressure of continuous flow mode, or (2) an air-purifying respirator (APR). If an APR is selected then (a) the cartridge must be equipped with an end-of-service life indicator (ESLI) certified by NIOSH, or (b) a change out schedule, based on objective information or data that will ensure that the cartridges are changed out before the end of their service life, must be developed and implemented. The basis for the change out schedule must be described in the written respirator program. Further, if an APR is selected, the airborne diisocyanate concentration must be no greater than 10 times the TLV or PEL. The recommended APR cartridge is an organic vapor/particulate filter combination cartridge (OV/P100).

EYE PROTECTION: Chemical safety goggles. If there is a potential for splashing, use a full-face shield.

SKIN PROTECTION: The following protective materials are recommended. Gloves made of neoprene, nitrile-butadiene rubber, butyl rubber. Thin disposable gloves should be avoided for repeated or long term use. Protective clothing should be selected to cover as much of the exposed skin area as possible with appropriate clothing to prevent skin contact.

MEDICAL SURVEILLANCE: All applicants who are assigned to an isocyanate work area should undergo a pre-placement medical evaluation. A history of eczema or respiratory allergies such a hay fever, are possible reasons for medical exclusion from isocyanate areas. Applicants who have a history of adult asthma should be restricted from work with isocyanates. Applicants with a history of prior isocyanate sensitization should be excluded from further work with isocyanates. A comprehensive annual medical surveillance program should be instituted for all employees who are potentially exposed to diisocyanates. Once a worker has been diagnosed a sensitized to any isocyanate, no further exposure can be permitted.

### Section 9 – Chemical and Physical Properties

APPEARANCE/COLOR: Dark Brown Liquid  
ODOR: Musty  
BOILING POINT: 208 C (406.4 F)  
MELTING/FREEZING POINT: < 0 C (< 32 F)  
FLASH POINT: 200 C (392 F) Closed Cup  
SOLUBILITY IN WATER: Insoluble - Reacts slowly with Water  
SPECIFIC GRAVITY: 1.24  
BULK DENSITY: 10.3 lbs/gal  
% VOLATILE BY VOLUME: Negligible  
VAPOR PRESSURE: < 0.0001 mmHg at 77 F (25 C)

### Section 10 – Stability and Reactivity

HAZARDOUS REACTIONS: Exposure to temperatures in excess of 158 F (70 C) may cause dangerous pressure build-up, resulting in the deformation and/or rupture of sealed containers. MDI reacts slowly with water to form CO2 gas. This gas can cause sealed containers to expand and possibly rupture. Contact with moisture, other materials that react with isocyanates, or temperatures above 350 F (177 C), may cause polymerization.

MATERIALS TO AVOID: Water, Amines, Strong bases, Alcohols, copper alloys, Aluminum

HAZARDOUS DECOMPOSITION PRODUCTS: By first and high heat: hydrogen cyanide; carbon dioxide (CO2), oxides of nitrogen (NOx), dense black smoke, isocyanate, isocyanic acid, other undetermined compounds

### Section 11 – Toxicological Information

This product has not been tested as a whole. Information for components from available sources is listed below.

#### TOXICITY DATA POLYMERIC MDI

ORAL LD50: > 2,000 mg/kg (rat, Male/Female)  
DERMAL LD50: No Data  
INHALATION LC50 (RAT): 490 mg/m3 vapor, 4 hr

SKIN IRRITATION: rabbit, slightly irritating  
REPEATED DOSE TOXICITY: 90 days, inhalation: NOAEL: 1 mg/m3, (rat, Male/Female, 6 hrs/day 5 days/week) irritation to lungs and nasal cavity.  
2 YEARS, INHALATION: NOAEL: 0.2 mg/m3, (rat, Male/Female, 6 hrs/day 5 days/week) Irritation to lung and nasal cavity.  
MUTAGENICITY: Genetic Toxicity in Vitro: Bacterial – gene mutation assay: negative  
CARCINOGENICITY: rat, Male/Female, inhalation, 2 years, 6 hrs. day, 5 days/week  
Exposure to a level of 8mg/m3 polymeric MDI was related to the occurrence of lung tumors. This level is significantly over the TLV for MDI.  
DEVELOPMENTAL TOXICITY/TERATOGENICITY: rat, female, inhalation, gestation days 6-15, 6 hrs/day, NOAEL (teratogenicity): 12 mg/m3, NOAEL (maternal): 4mg/m3 No teratogenic effects observed at doses tested, Fetotoxicity seen only with maternal toxicity.

#### TOXICITY DATA FOR 4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI)

ORAL LD50: No Data  
DERMAL LD50 (RABBIT): > 10,000 mg/kg  
INHALATION LC50 (RAT): > 2240 mg/m3 aerosol, 1 h

SKIN IRRITATION: rabbit, slightly irritating  
EYE IRRITATION: rabbit, slightly irritating  
SENSITIZATION:  
dermal: sensitizer (guinea pig, Maximisation Test (GPMT))  
inhalation: sensitizer (guinea pig)  
REPEATED DOSE TOXICITY:  
90 days, inhalation: NOAEL: 1 mg/m3, (rat, Male/Female, 6 hrs/day 5 days/week)  
Irritation to lungs and nasal cavity.  
MUTAGENICITY:  
GENETIC TOXICITY IN VITRO:  
Ames: (Salmonella typhimurium, Metabolic Activation, with/without) Positive and negative results were reported. The use of certain solvents which rapidly hydrolyze diisocyanates is suspected of producing the positive mutagenicity results.  
GENETIC TOXICITY IN VIVO:  
Micronucleus Assay: negative (mouse)  
Carcinogenicity: rat, Male/Female, inhalation, 2 years, 17 hrs/day, 5 days/week  
negative

### Section 12 – Ecological Information

This product has not been tested as a whole. Information for components from available sources is listed below.

#### ECOLOGICAL DATA FOR 4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI)

Acute and Prolonged Toxicity to Fish  
LC50: > 500mg/l (Zebra fish (Brachydanio rerio), 24 hrs)  
Acute Toxicity to Aquatic Invertebrates  
EC50: > 500 mg/l (Water flea (Daphnia magna), 24 hrs)

### Section 13 – Disposal Considerations

WASTE DISPOSAL METHOD: Waste disposal should be in accordance with existing federal, state and local environment control laws. Incineration is the preferred method.  
EMPTY CONTAINER PRECAUTIONS: Empty containers retain product residue, observe all precautions for product. Do not heat or cut empty container with electric or gas torch because highly toxic vapors and gases are formed. Do not reuse without thorough commercial cleaning and reconditioning. If container is to be disposed, ensure all product residues are removed prior to disposal.

### Section 14 – Transportation Information

Land Transportation DOT:  
Proper Shipping Name: Other regulated substances, liquid, n.o.s.  
(contains 4,4'-Diphenylmethane Diisocyanate (MDI))  
Hazard Class or Division: 9  
UNNA Number: NA3082  
Packaging Group: III  
Hazard Label(s): Class 9

Reportable Quantity (RQ): 6250 lbs.

Sea Transportation: Not Regulated  
Air Transportation: Not Regulated  
Additional Information: Individual containers of less than the Product RQ ships non-regulated.

### Section 15 – Regulatory Information

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material. To determine applicability or effects of any law or regulation with respect to the product, user should consult his legal advisor or the appropriate government agency.

#### UNITED STATES FEDERAL REGULATIONS:

OSHA Hazcom Standard Rating: Hazardous  
US Toxic Substances Control Act: Listed on the TSCA Inventory  
US EPA CERCLA Hazardous Substances (40 CFR 302):  
4,4'-Diphenylmethane Diisocyanate (MDI). Reportable Quantity: 5,000 lbs.  
SARA Section 311/312 Hazard Categories:  
Acute Health Hazard, Chronic Health Hazard  
US EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A): None  
US EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) – Supplier Notification Required:  
4,4'-Diphenylmethane Diisocyanate (MDI)