MATERIAL SAFETY DATA SHEET

Product Name: Polyurethane Belt MSDS No.: POLYURET

For Emergency Assistance involving Chemicals Call-
CHEMTREC: 1-800-424-9300

Manufacturer: The Gates Rubber Co. Telephone No.: (303)744-5850
P. O. Box 5887
Denver, CO 80217 Effective date: REV4, 02/15/94

SECTION 1: PRODUCT IDENTIFICATION

Trade Name: Polyurethane Elastomer
Generic Name: Polyurethane Elastomer
Formula: Mixture
Chemical Name: Polyurethane Elastomer
CAS#: None assigned

SECTION 2: INGREDIENTS

Ingredient Name	%/wt	OSHA(PEL)	ACGIH(TLV)
Polyurethane elastomer (CAS# Not assigned)	100	Not established	Not established

Under OSHA's Hazard Communication Standard (29 CFR 1910.1200) this product qualifies as an article in that its end use is dependent upon its shape and design, and it will not release, or otherwise result in exposure to a hazardous chemical under normal conditions of use.

Heating this product above 300 degrees F (130 deg C) may produce:

TDI (Toluene diisocyanate) (CAS# 26471-62-5)	0.005 ppm TWA 0.02 ppm STEL	
MDI (Methylene bisphenyl isocyanate) (CAS# 101-68-8)	0.02 ppm CEIL	0.005 ppm TWA

SECTION 3: HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

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* This product does not present any unusual hazards. However, it does contain ingredients that if exposed to grinding or excess heat may require specialized treatment for skin or eye contact, or inhalation. Refer to Section 4 of this MSDS for first aid information.

Under conditions of fire this product may contribute isocyanates (TDI or MDI) to the smoke, depending on which one was used in the elastomers. Use NIOSH-approved protective equipment to prevent inhalation of smoke and gases emitted from burning materials.

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HEALTH HAZARDS

Summary: Grinding dusts or fumes from hot wire cutting, heating or branding may cause upper respiratory, skin, or eye irritation. Isocyanates (TDI or MDI), which can cause sensitization (allergy) may be released if product is heated above 300 degrees F.
This product has not been classified as a carcinogen by NTP, IARC, or OSHA.

Acute (short-term) health effects: None known from solid article. Fumes from hot wire cutting can irritate the upper respiratory system and lead to coughing. These fumes could contain traces of isocyanates (TDI or MDI) depending on which was used in the elastomer.

Chronic (long-term) health effects: Animal studies indicate that chronic inhalation or overexposure to the fumes during heating of the product may cause inflammation of the lungs, respiratory sensitization, and airway obstruction. Exposure to fumes may result in a allergy to any isocyanate-containing product.

Target Organs: Skin, eyes, and respiratory system.

Primary routes of entry (exposure): Skin and eye contact, and inhalation of grinding dust or fumes.

Medical conditions which may be aggravated: Pre-existing skin and respiratory conditions.

SYMPTOMS OF OVEREXPOSURE

Inhalation: : Not normally expected to occur. Inhalation of grinding dust or fumes from heating may cause respiratory tract irritation. Exposure after sensitization may result in asthma-like symptoms (wheezing, shortness of breath, reduced lung capacity).

Skin Contact: Minor irritation may occur with excessive exposure to dust. A skin rash may develop if re-exposed to isocyanates after sensitization.

Skin Absorption: Not expected to occur.

Ingestion: Product is not intended to be ingested or eaten. If this product is ingested, irritation of the gastrointestinal (GI) tract may occur, and should be treated symptomatically. No chronic effects are expected following ingestion.

Eye Contact: Irritation, burning, reddening, may occur if grinding dus or fumes from heating the product get into the eyes.

SECTION 4: FIRST AID MEASURES

Inhalation: Remove to fresh air.

Skin Contact: Wash exposed areas with soap and water. If irritation develops or persists, seek medical attention.

Skin Absorption: No symptoms reported.

Ingestion: Ingestion is not likely to occur under normal conditions of use. If this product is ingested, drink plenty of water and seek medical attention.

Eye Contact: Flush eyes with water. If irritation develops or persists, seek medical attention.

Notes to physician: This product is not expected to cause adverse health effects. Irritation of skin and eyes may occur, and should be treated symptomatically. Sensitization may be caused by exposure to fumes from heated product.

SECTION 5: FIRE FIGHTING MEASURES

Product may melt, after ignition, and form flammable liquids, intense heat, dense smoke, and toxic gases, including isocyanates (TDI or MDI) depending on which ingredients were used in the elastomer.

Use normal fire fighting protective equipment to prevent inhalation of smoke and gases emitted from burning materials.

Extinguishing media: Water, foam, carbon dioxide, or dry chemical.

SECTION 6: ACCIDENTAL SPILL RELEASE MEASURES

Procedures for containing spills/leaks: Pick-up large pieces and swee up, using sweeping compound, small particles of the material. Preven entry of material into sewers, water sources, or land areas.

Waste Management: Dispose of in a permitted waste management facility in accordance with federal, state, and local regulations.

SECTION 7: HANDLING AND STORAGE

Store elastomers in areas equipped with sprinkler systems, and store away from sparks, flames or other ignition sources.

Conditions to avoid: Avoid strong acids and bases.

SECTION 8: EXPOSURE CONTROL - PERSONAL PROTECTIVE MEASURES

Summary: When grinding, sawing, hot wire cutting, or hot branding of

polyurethane elastomer, respiratory protection may be required. Skin and eye protection should be used as described below.

Engineering Controls: If fumes or dust are produced, local exhaust or general dilution ventilation may be required to maintain exposures below the control limits.

Personal Protection: Use a dust mask during grinding operations. If generating fumes from hot wire cutting or hot knife operations, wear a air-purifying respirator with organic cartridge if ventilation is inadequate to insure levels below the exposure limits in Section 2 of this MSDS.

Eye Protection: Goggles or safety glasses are recommended to protect eyes from possible grinding dust or fumes.

Skin Protection: Gloves may be used to prevent excessive skin contact.

Special Considerations: During repair/maintenance of contaminated equipment, gloves, goggles, and safety glasses may be used to prevent skin and eye contact with product dusts.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and odor: Black solid/ No odor

Boiling Pt. (deg C):	Not applicable
Melting Pt. (deg F):	350-450 deg F; Will degrade above 300 deg F
Vapor Pressure (mmHg):	Not applicable
Water Solubility (%):	Insoluble
Specific Gravity (Water=1):	1.05-1.25
Evaporation Rate (Butyl Acetate=1):	Not applicable
Vapor Density (Air=1):	Not applicable
% Volatile by Volume:	Not applicable
Total VOC (g/liter):	Not applicable
pH:	Not applicable
Bulk Density:	Not applicable
Flash point (method):	Not applicable
Lower Explosive Limit:	Not applicable
Upper Explosive Limit:	Not applicable

SECTION 10: PHYSICAL AND CHEMICAL HAZARDS

Unusual Fire/Explosion Hazards: None.

Reactivity: Non-reactive.

Hazardous Decomposition Products: In its original state, this product is not expected to burn, or emit any hazardous decomposition products. However, at temperatures above 300 degrees F, it can begin

to degrade, releasing TDI and/or MDI. After ignition it will release toxic gases such as carbon monoxide, oxides of nitrogen, and traces of hydrogen cyanide.

SECTION 11: OTHER INFORMATION

TOXICOLOGICAL DATA

This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of the individual ingredients, and those hazards must be assumed to be additive in the absence of complete information. The hazards described in this document have been evaluated based on a threshold of 1.0% for hazardous ingredients.

Acute Effects: Under normal conditions of use, this product will not release or otherwise result in exposure to a hazardous chemical. Grinding dusts, and fumes released at temperatures greater than 300 degrees F may be irritating to the upper respiratory system, skin, and eyes.

The LD50 and LC50 (dose or concentration lethal to 50% of a population of test animals) for this product have not been determined.

Chronic Effects: Exposure to isocyanate fumes released when product is heated above 300 degrees F can cause respiratory sensitization.

DISPOSAL CONSIDERATIONS

Evaluation of RCRA regulations (40 CFR 261), indicates that this product, as formulated, would not be a hazardous waste upon disposal. If mixed with other compounds or chemicals, this product may become a hazardous waste. Because the product may have been combined with other products or otherwise changed in processing, it should be evaluated for waste characteristics at the time of disposal. Dispose in accordance with all Federal, State, and local regulations.

SHIPPING INFORMATION

U.S. DOT Shipping Classification: Pursuant to DOT regulations (49 CFR 172), this product is not classified as a hazardous material.

REGULATORY INFORMATION

This product is a hazardous chemical because of a health hazard per OSHA 29 CFR 1910.1200(c), Hazard Communication Standard.
If heated above 300 degrees F, this product may release MDI or TDI which are classified as hazardous materials under the Hazard Communication or Environmental Protection regulations of the following states: Florida, Illinois, Massachusetts, New Jersey, Pennsylvania, Rhode Island, and Tennessee.
This product does not contain any hazardous substances identified under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and listed at 40 CFR 302.

This product contains the following chemical(s) subject to the reporting requirements of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) Section 302 & 40 CFR 355; Section 313 and 40 CFR 372; and CERCLA regulations (40 CFR 302):

Chemical	SARA Sect. 313	CERCLA
Released if heated:		
Toluene diisocyante (TDI) (CAS# 26471-62-5)	Y	*100 lbs.
Methylenebis(phenylisocyanate), (MDI) (101-68-8)	Y	Not listed

*Classified as an Extremely Hazardous Substance (EHS) in SARA Sect. 35
De minimus: 0.1; Total Planning Quantity (TPQ): 100 lbs.
The following hazard categories as defined under SARA III (40 CFR 370.2) are applicable to this product as indicated:

Immediate (acute) health hazard:	No
Delayed (chronic) health hazard:	Sensitizer
Fire hazard:	No
Sudden release of pressure:	No
Reactive:	No

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HAZARD RATING SYSTEM/LABELING INFORMATION

This information is intended solely for the use of those individuals trained in the use of the Gates Hazard Rating System as described in PEPP 1-12, Appendix F.

Flammability rating:	0
Reactivity rating:	0
Health rating:	1
Specific hazards:	SENS(if heated)
Personal protective equipment:	Eye.
Target organs:	Skin, eye.
Routes of entry:	Skin and eye contact.

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REVISION SUMMARY

MSDS No.	Date revised	Reason
POLYURET	January 25, 1993	Draft issued
REV1	April 15, 1993	Sect 2,3,PEPP
REV2	July 31, 1993	Sect. 2,11: MDI TLV & Regulatory
REV3	October 31, 1993	Page 1: Emergency telephone number
REV4	February 15, 1994	Sect. 11: Disposal

MISCELLANEOUS

This MSDS was prepared by MTC on the basis of information supplied by Gates. MTC will not be responsible for changes to the MSDS subsequen to its tender of the MSDS to Gates.

The data in this Material Safety Data Sheet relate only to the specif material designated herein. Actual conditions of use and handling may require consideration of information other than, or in addition to, that which is provided here. Gates makes no representation or warrant with respect to the information on this Material Safety Data Sheet. T information is, however, as of this date provided, true and accurate the best of Gates' knowledge. This list of information is not intende to be all inclusive, and additional measures may be required under particular or exceptional circumstances.