



MSDS014

LORD 7602 Urethane Adhesive

MATERIAL SAFETY DATA SHEET

Chemical Product and Company Identification

LABEL IDENTIFIER: LORD 7602 Urethane Adhesive

PRODUCT IDENTIFIER: P/N 603571 Adhesive, Urethane (Tyrite 7602)

COMPANY IDENTIFICATION: MINE SAFETY APPLIANCES COMPANY
P.O. Box 439
Pittsburgh, PA 15230
CUSTOMER SERVICE: 1-800-MSA-2222 (8:30 a.m. – 5:00 p.m., USA local time)
EMERGENCY: 1-800-255-3924 (CHEM-TEL, INC.)

Vendor Information

A Material Safety Data Sheet as furnished by Lord Corporation, Chemical Products Division, for Lord 7602 (Tyrite 7602) is attached (8 Pages).

Lord Chemical Products Division MSDS REVISION DATE: 3/3/97

Other Information

WARNING: This is a hazardous chemical product. By following the directions and warnings provided with this product, the hazards associated with the use of this product can be greatly reduced but never entirely eliminated. Mine Safety Appliances Company makes no warranties, expressed or implied, with respect to this product and EXPRESSLY DISCLAIMS THE WARRANTY OF MERCHANTABILITY AND ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. Users assume all risks in handling, using or storing this product.

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : LORD 7602 (TYRITE 7602)
 PRODUCT USE/CLASS : URETHANE ADHESIVE DATE PRINTED: 03/03/97

LORD CORPORATION
 CHEMICAL PRODUCTS DIVISION
 2000 WEST GRANDVIEW BLVD
 ERIE, PA 16514

EMERGENCY TELEPHONE: 814 763-2345
 24 HOURS A DAY

INFORMATION TELEPHONE : 814 868-3611

PREPARE DATE: 02/01/95

PREVIOUS MSDS REVISION DATE: 03/09/94

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Wt % Less Than	Exposure Guidelines					
			ACGIH		OSHA		Units	Skin
			TWA	STEL	TWA	Ceil		
4,4'-Diphenylmethane diisocyanate	101-68-8	10%	.005	N.E.	N.E.	0.02	ppm	
Aromatic isocyanate	Proprietary	3.0%	.02	N.E.	N.E.	0.02	ppm	
Aromatic polyisocyanate	Proprietary	20%	N.E.	N.E.	N.E.	N.E.		
Diphenylmethane diisocyanate	26447-40-5	1.0%	.005	N.E.	N.E.	0.02	ppm	
Ethyl acetate	141-78-6	10%	400	N.E.	400	N.E.	ppm	
Toluene	108-88-3	15%	50	N.E.	200	300	ppm	S
Toluene diisocyanate	26471-62-5	1.0%	.005	.02	N.E.	0.02	ppm	

N.E. - Not Established, S - Skin Designation, C - Ceiling

SECTION 3 - HAZARDS IDENTIFICATION

*** EMERGENCY OVERVIEW ***: Off white Paste, with Aromatic odor. Flammable liquid and vapor. Harmful if absorbed through skin. May cause allergic skin reaction. May cause allergic respiratory reaction. Vapor harmful; may affect the brain or nervous system causing dizziness, headache or nausea. Causes skin and eye irritation. Causes respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes eye irritation.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: May be absorbed through the skin in harmful amounts. May cause skin sensitization. May cause dermatitis. Causes skin irritation.

(Continued on Page 2)

SECTION 3 - HAZARDS IDENTIFICATION

EFFECTS OF OVEREXPOSURE - INHALATION: Possible irritation of the respiratory system can occur causing a variety of symptoms such as dryness of the throat, tightness of the chest, and shortness of breath. Allergic conditions can occur in certain individuals with high sensitivity to isocyanates; this may result in asthma-like symptoms. May cause central nervous system depression characterized by the following progressive steps: headache, dizziness, staggering gait, confusion, unconsciousness or coma. May cause respiratory sensitization. May cause lung damage.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed. Ingestion is not an expected route of entry in industrial or commercial uses.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: May cause liver or kidney damage. Repeated or prolonged solvent overexposure may result in permanent central nervous system damage. IARC and NTP have determined that there is sufficient evidence for carcinogenicity of toluene diisocyanate to experimental animals and inadequate evidence in humans. May cause long-term lung damage. Chronic skin contact may cause dermatitis.

PRIMARY ROUTE(S) OF ENTRY: SKIN CONTACT INHALATION INGESTION EYE CONTACT

SECTION 4 - FIRST AID MEASURES

FIRST AID - EYE CONTACT: Flush eyes immediately with large amount of water for at least 15 minutes holding eyelids open while flushing. Get prompt medical attention.

FIRST AID - SKIN CONTACT: Flush contaminated skin with large amounts of water while removing contaminated clothing. Wash affected skin areas with soap and water. Get medical attention if symptoms occur.

FIRST AID - INHALATION: Move person to fresh air. Restore and support continued breathing. If breathing is difficult, give oxygen. Get immediate medical attention.

FIRST AID - INGESTION: If swallowed, do not induce vomiting. Give victim one or two glasses of water or milk. Call a physician or poison control center immediately for further instructions. Never give anything by mouth to an unconscious person.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: 45F, 7C
(SETAFLASH CLOSED CUP)

LOWER EXPLOSIVE LIMIT: 1.2 %
UPPER EXPLOSIVE LIMIT: 9.0 %

AUTOIGNITION TEMPERATURE: N.D.

(Continued on Page 3)

SECTION 5 - FIRE FIGHTING MEASURES

OSHA FLAMMABILITY CLASSIFICATION: FLAMMABLE LIQUID - CLASS IB

EXTINGUISHING MEDIA: CO2 DRY CHEMICAL FOAM WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: Flammable liquid and vapor. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, open flame, and other sources of ignition. Closed containers may rupture when exposed to extreme heat. Use water spray to keep fire exposed containers cool.

SPECIAL FIREFIGHTING PROCEDURES: Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA). Water spray may be ineffective. If water is used, fog nozzles are preferable. During a fire, irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Keep non-essential personnel a safe distance away from the spill area. Remove all sources of ignition (flame, hot surfaces, and electrical, static or frictional sparks). Avoid breathing vapors. Use self-contained breathing equipment. Notify appropriate authorities if necessary. Contain and remove with inert absorbent material and non-sparking tools. Avoid contact. Before attempting cleanup, refer to hazard caution information in other sections of the MSDS form.

SECTION 7 - HANDLING AND STORAGE

HANDLING: Keep closure tight and container upright to prevent leakage. Ground and bond containers when transferring material. Avoid skin and eye contact. Wash thoroughly after handling. Avoid breathing of vapor or spray mists. Do not handle until all safety precautions have been read and understood. Empty containers should not be re-used. Use with adequate ventilation. Because empty containers may retain product residue and flammable vapors, keep away from heat, sparks and flame; do not cut, puncture or weld on or near the empty container. Do not smoke where this product is used or stored.

STORAGE: Do not store or use near heat, sparks, or open flame. Refer to OSHA 29CFR Part 1910.106 "Flammable and Combustible Liquids" for specific storage requirements. Store only in well-ventilated areas. Do not puncture, drag, or slide container. Keep container closed when not in use.

(Continued on Page 4)

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits. Caution: Solvent vapors are heavier than air and collect in lower levels of the work area. Sufficient ventilation (using explosion-proof equipment) should be provided to prevent flammable vapor/air mixtures from accumulating.

RESPIRATORY PROTECTION: This product contains isocyanates which have poor odor warning properties. If occupational exposure limits are exceeded, a NIOSH/MSHA approved supplied-air respirator is required. Observe OSHA regulations (29CFR 1910.134) for respirator use.

SKIN PROTECTION: Use neoprene, nitrile, or rubber gloves to prevent skin contact.

EYE PROTECTION: Use safety eyewear including safety glasses with side shields and chemical goggles where splashing may occur.

OTHER PROTECTIVE EQUIPMENT: Use disposable or impervious clothing if work clothing contamination is likely. Remove and wash contaminated clothing before reuse.

HYGIENIC PRACTICES: Wash hands before eating, smoking, or using toilet facility. Do not smoke in any chemical handling or storage area. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE	: 171 - 484 F	VAPOR DENSITY	: Is heavier than air
APPEARANCE	: Off white	ODOR THRESHOLD	: N.D.
PHYSICAL STATE	: Paste	EVAPORATION RATE	: Is slower than Ether
ODOR	: Aromatic	DENSITY, LB/GAL	: 9.71
SOLUBILITY IN H2O	: Insoluble	SPECIFIC GRAVITY	: 1.16
FREEZE POINT	: N.D.	pH	: N.A.
VOLATILE BY WEIGHT	: 18.0 %	VOLATILE BY VOL	: 24.1 %
VAPOR PRESSURE	: N.D.		
COEFFICIENT OF WATER/OIL DISTRIBUTION: N.D.			

(See Section 16 for abbreviation legend)

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: High temperatures. Sources of ignition.

INCOMPATIBILITY: Amines, acids, water, hydroxyl, or active hydrogen compounds.

(Continued on Page 5)

SECTION 10 - STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS: Monomeric isocyanate, traces of hydrogen cyanide, nitrogen dioxide. Carbon monoxide, carbon dioxide.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

SECTION 11 - TOXICOLOGICAL PROPERTIES

No product toxicological information is available.

SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: No Information.

SECTION 13 - DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Disposal should be done in accordance with Federal (40CFR Part 261), state and local environmental control regulations. If waste is determined to be hazardous, use licensed hazardous waste transporter and disposal facility.

SECTION 14 - TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: ADHESIVE

DOT HAZARD CLASS: 3

EMERGENCY RESPONSE GUIDE NUMBER: 26

DOT UN/NA NUMBER: UN1133

PACKING GROUP

: II

SECTION 15 - REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS -

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

(Continued on Page 6)

SECTION 15 - REGULATORY INFORMATION**SARA SECTION 313:**

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

----- CHEMICAL NAME -----	CAS NUMBER	WT % IS LESS THAN
Toluene	108-88-3	15%
4,4'-Diphenylmethane diisocyanate	101-68-8	10%
Toluene diisocyanate	26471-62-5	1.0%

TOXIC SUBSTANCES CONTROL ACT:**INVENTORY STATUS**

The chemical substances in this product are on the TSCA Section 8 Inventory.

EXPORT NOTIFICATION

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

----- CHEMICAL NAME -----	CAS NUMBER
Ethyl acetate	141-78-6
Methyl isobutyl ketone	108-10-1

INTERNATIONAL REGULATIONS: AS FOLLOWS -

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for use of the 16 headings.

CANADIAN WHMIS CLASS: No information available.

SECTION 16 - OTHER INFORMATION

HMIS RATINGS - HEALTH: 2* **FLAMMABILITY:** 3 **REACTIVITY:** 1

* - Indicates a chronic hazard; see Section 3

REASON FOR REVISION: TSCA 12b change

VOLATILE ORGANIC COMPOUNDS (VOCS): 1.75 lbs/gal, 210 grams/ltr

LEGEND: N.A. - Not Applicable, N.E. - Not Established,
N.D. - Not Determined

(Continued on Page 7)

DISCLAIMER

The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

<END OF MSDS>

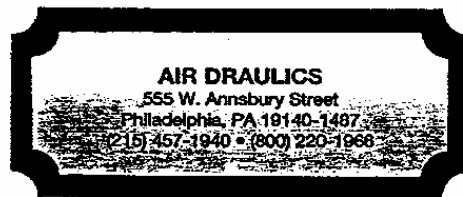
Product: LORD 7602, Prepare Date: 02/01/95

PENNSYLVANIA RIGHT-TO-KNOW ADDENDUM

NON-HAZARDOUS INGREDIENTS:

The following substances are present in the product at or more than 3.0%:

----- CHEMICAL NAME -----
Proprietary filler
Urethane polymer



<END OF ADDENDUM>