



# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: LORD 7660  
 Product Use/Class: ADHESIVE

INFORMATION TELEPHONE:  
 814 868-3611

LORD CORPORATION  
 111 LORD DRIVE  
 CARY, NC 27512-8012

TRANSPORTATION EMERGENCY  
 CALL CHEMTREC: 800 424-9300

NON-TRANSPORTATION EMERGENCY:  
 814 763-2345

EFFECTIVE DATE: 11/05/2003

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight % Less Than	ACGIH TLV- TWA	ACGIH TLV- STEL	OSHA PEL- TWA	OSHA PEL- CEILING	Skin
4,4'-Diphenylmethane diisocyanate	101-68-8	5.0 %	0.005 ppm	N.E.	N.E.	0.2 mg/m <sup>3</sup> 0.02 ppm	N.A.
Toluene	108-88-3	5.0 %	50 ppm	N.E.	200 ppm	200 ppm	S
Diphenylmethane diisocyanate	26447-40-5	1.0 %	N.E.	N.E.	N.E.	N.E.	N.A.
Methylene chloride	75-09-2	25.0 %	50 ppm	N.E.	25 ppm	N.E.	S
Methyl ethyl ketone	78-93-3	20.0 %	200 ppm	300 ppm	590 mg/m <sup>3</sup> 200 ppm	N.E.	N.A.

N.A. - Not Applicable, N.E. - Not Established, S - Skin Designation

## 3. HAZARDS IDENTIFICATION

**\*\*\* EMERGENCY OVERVIEW \*\*\*:** Blue Liquid, with Solvent odor. Flammable liquid and vapor. Harmful if inhaled or 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. Animal tests have indicated that respiratory sensitization can result from skin contact with 4,4'-Diphenylmethane diisocyanate.

**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. May cause central nervous system depression characterized by the following progressive steps: headache, dizziness, staggering gait, confusion, unconsciousness or coma. Allergic conditions can occur in certain individuals with high sensitivity to isocyanates; this may result in asthma-like symptoms. May cause respiratory sensitization. May cause lung damage. Contains methylene chloride. Excessive exposure may cause carboxyhemoglobinemia, a condition which impairs the blood's ability to transport oxygen. Very high levels of exposure to methylene chloride may cause cardiac arrhythmias.

**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. May cause long-term lung damage. Methylene chloride has been classified for carcinogenicity by IARC and by NTP as sufficient evidence for carcinogenicity in experimental animals; insufficient evidence in humans. Use of this product should comply with the OSHA Methylene Chloride Standard, 29CFR 1910.1052. Chronic skin contact may cause dermatitis.

**PRIMARY ROUTE(S) OF ENTRY:** Skin Contact, Skin Absorption, Inhalation, Ingestion, Eye Contact

#### 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.

#### 5. FIRE-FIGHTING MEASURES

**FLASH POINT:** 42 °F, 5 °C  
Setaflash Closed Cup

**LOWER EXPLOSIVE LIMIT (%):** 1.2 %(V)  
**UPPER EXPLOSIVE LIMIT (%):** 22 %(V)

**AUTOIGNITION TEMPERATURE:** N.D.

**EXTINGUISHING MEDIA:** Carbon Dioxide, 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. During a fire, irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion.

**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.

#### 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.

#### 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. 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. Avoid using pressurizable equipment which has aluminum or zinc parts; this product contains chlorinated solvents. 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.

## 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 approved supplied-air respirator is required. An air-supplied respirator is required where occupational limits are exceeded. Contains methylene chloride, which has poor odor warning properties. 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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>BOILING RANGE:</b>	104 °F 232 °F	<b>VAPOR DENSITY:</b>	Heavier than Air
<b>APPEARANCE:</b>	Blue	<b>EVAPORATION RATE:</b>	Faster than n-butyl-acetate.
<b>PHYSICAL STATE:</b>	Liquid	<b>DENSITY, LB/GL:</b>	9.3 lb/gal
<b>ODOR:</b>	Solvent	<b>SPECIFIC GRAVITY:</b>	1.12 g/cm <sup>3</sup>
<b>SOLUBILITY IN H<sub>2</sub>O:</b>	Insoluble	<b>pH:</b>	N.A.
<b>FREEZE POINT:</b>	N.D.	<b>ODOR THRESHOLD:</b>	N.D.
<b>VOLATILE BY WEIGHT:</b>	41.0 %	<b>VOLATILE BY VOLUME:</b>	45.1 %
<b>VAPOR PRESSURE:</b>	N.D.		
<b>COEFFICIENT OF WATER/OIL DISTRIBUTION:</b>	N.D.		

(See section 16 for abbreviation legend)

## 10. STABILITY AND REACTIVITY

**CONDITIONS TO AVOID:** High temperatures. Sources of ignition. Aluminum or galvanized parts in a closed system.

**INCOMPATIBILITY:** Amines, acids, water, hydroxyl, or active hydrogen compounds. Aluminum, zinc, caustics, halogens.

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

**HAZARDOUS POLYMERIZATION:** Hazardous polymerization will not occur under normal conditions.

**STABILITY:** Product is stable under normal storage conditions.

## 11. TOXICOLOGICAL INFORMATION

PRODUCT LD50 (ORAL) No Data  
(DERMAL) No Data  
PRODUCT LC50 No Data

## 12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: No Information

## 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.

## 14. TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME: Adhesives  
DOT HAZARD CLASS: 3  
SECONDARY HAZARD: None  
DOT UN/NA NUMBER: 1133  
PACKING GROUP: II  
EMERGENCY RESPONSE GUIDE NUMBER: 128

The listed transportation classification applies to non-bulk road shipments. It does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors. For the most accurate shipping information, refer to your transportation/compliance department.

## 15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS -

This product is considered hazardous as defined by 29 CFR 1910.1200 (OSHA HazCom Standard.)

### SARA SECTION 313:

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

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Weight % Less Than</u>
Methylene chloride	75-09-2	25.0 %
Methyl ethyl ketone	78-93-3	20.0 %
4,4'-Diphenylmethane diisocyanate	101-68-8	5.0 %
Toluene	108-88-3	5.0 %

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:

NONE

Product: LORD 7660, Effective Date: 11/05/2003

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## 16. OTHER INFORMATION

HMIS RATINGS - HEALTH: 2\* FLAMMABILITY: 3 PHYSICAL HAZARD: 1

\* - Indicates a chronic hazard; see Section 3

VOLATILE ORGANIC COMPOUNDS (Calculated): 2.24 lb/gal, 268 g/l

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

## DISCLAIMER

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