MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **CHEMLOK 6100(HR)**
Product Use/Class: **ADHESIVE**

LORD CORPORATION
111 LORD DRIVE
CARY, NC 27511-7923

TRANSPORTATION EMERGENCY:
CHEMTREC 24 HR EMERGENCY NO.
800 424-9300
(Outside Continental U.S. 703 527-3887)

NON-TRANSPORTATION EMERGENCY:
814 763-2345

INFORMATION TELEPHONE:
814 868-0924

EFFECTIVE DATE: 01/30/2012

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
Xylene	1330-20-7	65.0 %	100 ppm	150 ppm	435 mg/m3 100 ppm	N.E.	N.A.
Ethyl benzene	100-41-4	15.0 %	20 ppm	N.E.	435 mg/m3 100 ppm	N.E.	N.A.
Nitrogen substituted aromatic	PROPRIETARY	10.0 %	N.E.	N.E.	N.E.	N.E.	N.A.
Zinc compound	PROPRIETARY	5.0 %	N.E.	N.E.	N.E.	N.E.	N.A.
Carbon black	1333-86-4	5.0 %	3 mg/m3	N.E.	3.5 mg/m3	N.E.	N.A.

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

3. HAZARDS IDENTIFICATION

***** EMERGENCY OVERVIEW ***:** Black Liquid, with Solvent odor. Flammable liquid and vapor. Vapor harmful; may affect the brain or nervous system causing dizziness, headache or nausea. Harmful if swallowed. May cause respiratory tract irritation. May cause skin and eye irritation.

EFFECTS OF OVEREXPOSURE - EYE CONTACT: May cause eye irritation.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: May cause skin irritation. May cause dermatitis.

EFFECTS OF OVEREXPOSURE - INHALATION: May cause central nervous system depression characterized by the following progressive steps: headache, dizziness, staggering gait, confusion, unconsciousness or coma. In elevated-temperature applications, product may release vapors that may produce cyanosis in the absence of sufficient ventilation or adequate respiratory protection. 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.

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. May affect the gastrointestinal system. May affect the blood and blood-forming organs. Repeated or prolonged solvent overexposure may result in permanent central nervous system damage. Prolonged or repeated contact may result in dermatitis. Ethylbenzene has been classified by IARC as a possible human carcinogen (Group 2B) and reported by NTP to show clear evidence for carcinogenicity in animals. IARC has designated carbon black as Group 2B - inadequate evidence for carcinogenicity in humans, but sufficient evidence in experimental animals. The nitrogen substituted aromatic in this

product gave positive results for mutagenicity in an Ames Assay study while two other mutagenicity studies proved negative.

PRIMARY ROUTE(S) OF ENTRY: Skin Contact, 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 if victim is rapidly losing consciousness, unconscious or convulsing.

5. FIRE-FIGHTING MEASURES

FLASH POINT: 81 °F, 27 °C
Tagliabue Closed Cup

LOWER EXPLOSIVE LIMIT (%): 1 %(V)
UPPER EXPLOSIVE LIMIT (%): 7 %(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. WARNING: Due to the combustible nature of the dried film of this product and the potential for smoldering or fire, the accumulation and buildup of the dried film on spray booth walls and floors, spindles, fixtures and other surfaces should be avoided, and any buildup should be removed. Keep the dried film accumulations away from sparks, friction, impact, high heat (>235 F/>112 C) or other sources of ignition. These conditions could cause the dried film to ignite very readily and quickly, and the resulting smoldering or fire may be difficult to extinguish. During removal of accumulation/buildup of this product, take precautions to avoid heat, friction and impact during the cleaning process. Use paint stripper, brass brush, or plastic scraper for cleaning. In the event of smoldering or a fire involving the dried product, Cold Fire®** fire suppressing agent is preferred as the extinguishing medium. If Cold Fire® is not available, use water spray as the extinguishing medium. Take efforts to ensure that these agents reach the base of the smoldering or fire. Lord Corporation will not be responsible for personal injuries, property damage or any other damages arising from the accumulation (buildup, cleaning/removal or any related smoldering or fire) resulting from the use of this product. Refer to the Chemlok® Safe Handling Guide for additional information. **NOTE: LORD Corporation has determined Cold Fire® fire suppressing agent to be effective in extinguishing fires involving dried Chemlok® adhesives. LORD does not recommend any particular equipment or system for use in delivering or applying Cold Fire® products. Customer is responsible for determining that Cold Fire® products and any delivery equipment or system is appropriate and effective for customer's specific needs. 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). Use self-contained breathing equipment. Notify appropriate authorities if necessary. Contain and remove with inert absorbent material and non-sparking tools. Avoid contact. Avoid breathing vapors. Before attempting

cleanup, refer to hazard caution information in other sections of the MSDS form. See Section 5 for cautionary information on the dried residue of this product.

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. See Section 5 for cautionary information on handling of the dried residue of this product.

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: Use a NIOSH approved chemical/mechanical filter respirator designed to remove a combination of particulates and organic vapor if occupational limits are exceeded. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air-supplied respirator. 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

ODOR:	Solvent	**BOILING RANGE:**	100 - 139 °C
APPEARANCE:	Black	**VAPOR PRESSURE:**	N.D.
PHYSICAL STATE:	Liquid	**VAPOR DENSITY:**	Heavier than Air
ODOR THRESHOLD:	N.D.	**EVAPORATION RATE:**	Slower than n-butyl-acetate
SOLUBILITY IN H2O:	Insoluble	**DENSITY, LB/GL:**	7.81 lb/gal
pH:	N.A.	**VOLATILE BY WEIGHT:**	77.49 %
FREEZE POINT:	N.D.	**VOLATILE BY VOLUME:**	86.03 %
COEFFICIENT OF WATER/OIL DISTRIBUTION:	N.D.		

(See section 16 for abbreviation legend)

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: High temperatures. Sources of ignition. For dried product issues, refer to Section 5 of the MSDS, "Unusual Fire and Explosion Hazards".

INCOMPATIBILITY: Strong oxidizers, acids, bases, water.

HAZARDOUS DECOMPOSITION PRODUCTS: Decomposition due to high temperatures or a fire causes the formation of irritating and/or toxic gases, organic vapors or fumes., Carbon dioxide, carbon monoxide, chlorine, hydrogen chloride., Phosgene., Oxides of nitrogen.

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. Waste streams, including the dried adhesive residue, resulting from the use of this product should be tested for RCRA characteristics, including ignitability, to determine any applicable waste classifications.

14. TRANSPORT INFORMATION

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

The listed transportation classification applies to US DOT 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.
:

Chemical Name	**CAS Number**	**Weight % Less Than**
Xylene	1330-20-7	65.0 %
Ethyl benzene	100-41-4	15.0 %

Zinc compound	PROPRIETARY	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:

Chemical Name	**CAS Number**
Xylene	1330-20-7

16. OTHER INFORMATION

HMIS RATINGS - HEALTH: 2* FLAMMABILITY: 3 PHYSICAL HAZARD: 0

* - Indicates a chronic hazard; see Section 3

VOLATILE ORGANIC COMPOUNDS
Calculated: 6.05 lb/gal, 725 g/l
EPA Method 24: 6.55 lb/gal,

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

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.