# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **CHEMLOK 218**
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: 11/05/2009

## 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 |
|---|---|---|---|---|---|---|---|
| Toluene | 108-88-3 | 30.0 % | 20 ppm | N.E. | 200 ppm | 300 ppm | S |
| Isopropanol | 67-63-0 | 30.0 % | 200 ppm | 400 ppm | 980 mg/m3<br>400 ppm | N.E. | N.A. |
| Trichloroethylene | 79-01-6 | 25.0 % | 50 ppm | 100 ppm | 100 ppm | 100 ppm | N.A. |
| Ethyl alcohol | 64-17-5 | 10.0 % | N.E. | 1,000 ppm | 1,900 mg/m3<br>1,000 ppm | N.E. | N.A. |
| Phenol | 108-95-2 | 5.0 % | 5 ppm | N.E. | 19 mg/m3<br>5 ppm | N.E. | S |
| 1,2-Butylene oxide | 106-88-7 | 1.0 % | N.E. | N.E. | N.E. | N.E. | N.A. |

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

## 3. HAZARDS IDENTIFICATION

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

**EFFECTS OF OVEREXPOSURE - EYE CONTACT:** Eye contact may cause severe eye damage, including vision disturbances, corneal damage, and blindness.

**EFFECTS OF OVEREXPOSURE - SKIN CONTACT:** May be absorbed through the skin in harmful amounts. May be corrosive to skin; contact may cause skin burns. May cause dermatitis.

**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. May cause headache and nausea.

**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. May affect the gastrointestinal system. Prolonged or repeated contact may result in dermatitis. May cause

nervous system disorders. IARC has designated trichloroethylene as Group 2A - limited evidence for carcinogenicity in humans and sufficient evidence in experimental animals. 1,2 butylene oxide has been classified by IARC as a possible human carcinogen (Group 2B) and reported by NTP to show clear evidence for carcinogenicity in animals. ACGIH considers Ethyl alcohol to be an A3 carcinogen (confirmed animal carcinogen with unknown relevance in humans).

**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 if victim is rapidly losing consciousness, unconscious or convulsing.

## 5. FIRE-FIGHTING MEASURES

**FLASH POINT:** 36 °F, 2 °C
Setaflash Closed Cup

**LOWER EXPLOSIVE LIMIT (%):** 1.2 %(V)
**UPPER EXPLOSIVE LIMIT (%):** 44.8 %(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. 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. 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:** 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:** | 172 °F - 358 °F |
| **APPEARANCE:** | Amber | **VAPOR PRESSURE:** | N.D. |
| **PHYSICAL STATE:** | Liquid | **VAPOR DENSITY:** | Heavier than Air |
| **ODOR THRESHOLD:** | N.D. | **EVAPORATION RATE:** | Faster than n-butyl-acetate. |
| **SOLUBILITY IN H2O:** | Insoluble | **DENSITY, LB/GL:** | 8.14 lb/gal |
| **pH:** | N.A. | **VOLATILE BY WEIGHT:** | 78.65 % |
| **FREEZE POINT:** | N.D. | **VOLATILE BY VOLUME:** | 82.67 % |
| **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. Aluminum or galvanized parts in a closed system.

**INCOMPATIBILITY:** Strong oxidizers, acids, bases, water. Aluminum, zinc, caustics, halogens.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon dioxide, carbon monoxide, chlorine, hydrogen chloride. Phosgene.

**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 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 |
|---|---|---|
| Toluene | 108-88-3 | 30.0 % |
| Isopropanol | 67-63-0 | 30.0 % |
| Trichloroethylene | 79-01-6 | 25.0 % |
| Phenol | 108-95-2 | 5.0 % |
| 1,2-Butylene oxide | 106-88-7 | 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:

NONE

## 16. OTHER INFORMATION

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

* - Indicates a chronic hazard; see Section 3

**VOLATILE ORGANIC COMPOUNDS**
Calculated: 6.4 lb/gal, 766 g/l

**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.