

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **CHEMLOK EP5809-34**
Product Use/Class: **Adhesive**

LORD Corporation
111 LORD Drive
Cary, NC 27511-7923 USA

Telephone: 814 868-3180
Non-Transportation Emergency: 814 763-2345
Chemtrec 24 Hr Transportation Emergency No.
800 424-9300 (Outside Continental U.S. 703 527-3887)

EFFECTIVE DATE: 01/29/2019

2. HAZARDS IDENTIFICATION**GHS CLASSIFICATION:**

Acute toxicity Oral Category 4
Serious eye damage/eye irritation Category 1
Skin sensitization Category 1
Reproductive toxicity Category 2
Specific target organ systemic toxicity (single exposure) Category 3
Specific target organ systemic toxicity (single exposure) Category 1 Central nervous system, Systemic toxicity
Specific target organ systemic toxicity (single exposure) Category 3
Specific target organ systemic toxicity (repeated exposure) Category 1 Hematopoietic System, Ears, Central nervous system
Specific target organ systemic toxicity (repeated exposure) Category 2 Liver, Respiratory system, spleen
Aspiration hazard Category 1

GHS LABEL ELEMENTS:**Symbol(s)****Signal Word**

DANGER

Hazard Statements

Harmful if swallowed.
Causes serious eye damage.
May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.
May cause drowsiness or dizziness.
Causes damage to organs.(Central nervous system, Systemic toxicity)
May cause respiratory irritation.
Causes damage to organs through prolonged or repeated exposure.(Hematopoietic System, Ears, Central nervous system)
May cause damage to organs through prolonged or repeated exposure.(Liver, Respiratory system, spleen)
May be fatal if swallowed and enters airways.

Precautionary Statements**Prevention**

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.

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Wear protective gloves/eye protection/face protection.
Use personal protective equipment as required.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.

Response

Immediately call a POISON CENTER or doctor/physician.
Specific treatment (see supplemental first aid instructions on this label).
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
IF ON SKIN: Wash with plenty of soap and water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Rinse mouth.
Do NOT induce vomiting.
Wash contaminated clothing before reuse.

Storage

Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal:

Dispose of contents/container in accordance with waste/disposal laws and regulations of your country or particular locality.

Other Hazards:

This product contains component(s) which have the following warnings; however based on the GHS classification criteria of your country or locale, the product mixture may be outside the respective category(s).

Acute: Vapor harmful; may affect the brain or nervous system causing dizziness, headache or nausea. 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 be absorbed through the skin in harmful amounts. May cause skin and eye burns. May cause allergic respiratory reaction.

Chronic: Prolonged or repeated contact may result in dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS Number | Range |
|----------------------|-------------|-------------|
| Isopropanol | 67-63-0 | 80 - 85 % |
| N-Butanol | 71-36-3 | 5 - 10 % |
| Amino silane monomer | PROPRIETARY | 5 - 10 % |
| Silane monomer | PROPRIETARY | 1 - 5 % |
| Silane | PROPRIETARY | 0.1 - 0.9 % |
| Silane | PROPRIETARY | 0.1 - 0.9 % |
| Methoxysilane | PROPRIETARY | 0.1 - 0.9 % |

Any "PROPRIETARY" component(s) in the above table is considered trade secret, thus the specific chemical and its exact concentration is being withheld.

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. 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

SUITABLE EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam, Water Fog

UNSUITABLE EXTINGUISHING MEDIA: Not determined for this product.

SPECIFIC HAZARDS POSSIBLY ARISING FROM THE CHEMICAL: 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 PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS: 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

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES: Remove all sources of ignition (flame, hot surfaces, and electrical, static or frictional sparks). Avoid contact. Avoid breathing vapors. Use self-contained breathing equipment.

ENVIRONMENTAL PRECAUTIONS: Do not contaminate bodies of water, waterways, or ditches, with chemical or used container.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP: Keep non-essential personnel a safe distance away from the spill area. Notify appropriate authorities if necessary. Avoid contact. Before attempting cleanup, refer to hazard caution information in other sections of the SDS form. Contain and remove with inert absorbent material.

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

INCOMPATIBILITY: Strong acids, bases, and strong oxidizers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT EXPOSURE LIMIT

| Chemical Name | ACGIH TLV-TWA | ACGIH TLV-STEL | OSHA PEL-TWA | OSHA PEL-CEILING | Skin |
|----------------------|---------------|----------------|----------------------------------|------------------|------|
| Isopropanol | 200 ppm | 400 ppm | 980 mg/m ³ 400 ppm | N.E. | N.A. |
| N-Butanol | 20 ppm | N.E. | 300 mg/m ³ 100 ppm | N.E. | S |
| Amino silane monomer | N.E. | N.E. | N.E. | N.E. | N.A. |
| Silane monomer | N.E. | N.E. | N.E. | N.E. | N.A. |

| | | | | | |
|---------------|------|------|------|------|------|
| Silane | N.E. | N.E. | N.E. | N.E. | N.A. |
| Silane | N.E. | N.E. | N.E. | N.E. | N.A. |
| Methoxysilane | N.E. | N.E. | N.E. | N.E. | N.A. |

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

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.

PERSONAL PROTECTION MEASURES/EQUIPMENT:

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. For respirator use observe OSHA regulations (29CFR 1910.134) or use in accordance with applicable laws and regulations of your country or particular locality. Note: If the exposure limit for formaldehyde is exceeded, a formaldehyde-specific, formaldehyde/organic vapor combination, or airline respirator may be required.

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

Typical values, not to be used for specification purposes.

| | | | |
|---|------------------------|-------------------------------|--------------------------------------|
| ODOR: | Alcohol | VAPOR PRESSURE: | N.D. |
| APPEARANCE: | Clear | VAPOR DENSITY: | Heavier than Air |
| PHYSICAL STATE: | Liquid | LOWER EXPLOSIVE LIMIT: | 1.4 %(V) |
| FLASH POINT: | 70 °F, 21 °C Setaflash | UPPER EXPLOSIVE LIMIT: | 12.7 %(V) |
| | Closed Cup | EVAPORATION RATE: | Faster than n-butyl-acetate. |
| BOILING RANGE: | 83 - 118 °C | DENSITY: | 0.81 g/cm ³ - 6.72 lb/gal |
| AUTOIGNITION TEMPERATURE: | N.D. | VISCOSITY, DYNAMIC: | N.D. |
| DECOMPOSITION TEMPERATURE: | N.D. | VISCOSITY, KINEMATIC: | N.D. |
| ODOR THRESHOLD: | N.D. | VOLATILE BY WEIGHT: | 89.89 % |
| SOLUBILITY IN H₂O: | Insoluble | VOLATILE BY VOLUME: | 91.96 % |
| pH: | N.A. | VOC CALCULATED: | 6.04 lb/gal, 724 g/l |
| FREEZE POINT: | N.D. | | |
| COEFFICIENT OF WATER/OIL DISTRIBUTION: | N.D. | | |

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

10. STABILITY AND REACTIVITY

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

STABILITY: Product is stable under normal storage conditions.

CONDITIONS TO AVOID: High temperatures. Sources of ignition.

INCOMPATIBILITY: Strong acids, bases, and strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, Oxides of nitrogen, Oxides of silicon

11. TOXICOLOGICAL INFORMATION

EXPOSURE PATH: Refer to section 2 of this SDS.

SYMPTOMS: Refer to section 2 of this SDS.

TOXICITY MEASURES:

| Chemical Name | LD50/LC50 |
|----------------------|---|
| Isopropanol | Oral LD50: Rat 1,870 mg/kg Dermal LD50: Rabbit 4,059 mg/kg Inhalation LC50: Rat 72,600 mg/m ³ /4 h |
| N-Butanol | Oral LD50: Rat 700 mg/kg Dermal LD50: Rabbit 3,402 mg/kg Inhalation LC50: Rat >8000 ppm/4 h |
| Amino silane monomer | Oral LD50: Rat 7460 µL/kg Oral LD50: Rat 2,413 mg/kg |
| Silane monomer | Oral LD50: Rat 2830 µL/kg Dermal LD50: Rabbit 3180 µL/kg |
| Silane | N.D. |
| Silane | N.D. |
| Methoxysilane | N.D. |

Germ cell mutagenicity: No classification proposed

Carcinogenicity: No classification proposed

Reproductive toxicity: Category 2 - Suspected of damaging fertility or the unborn child.
Components contributing to classification: Isopropanol.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

| Chemical Name | Ecotoxicity |
|----------------------|---|
| Isopropanol | <u>Fish:</u> Pimephales promelas 9,640 mg/196 h flow-through Pimephales promelas 11,130 mg/196 h Static Lepomis macrochirus > 1,400,000 µg/196 h <u>Invertebrates:</u> Daphnia magna 13,299 mg/148 h <u>Plants:</u> Desmodosmus subspicatus > 1,000 mg/196 h Desmodosmus subspicatus > 1,000 mg/172 h |
| N-Butanol | <u>Fish:</u> Pimephales promelas 1,730 - 1,910 mg/196 h Static Pimephales promelas 1,740 mg/196 h flow-through Lepomis macrochirus 100,000 - 500,000 µg/196 h Static Pimephales promelas 1,910,000 µg/196 h Static <u>Invertebrates:</u> Daphnia magna 1,983 mg/148 h Daphnia magna 1,897 - 2,072 mg/148 h Static <u>Plants:</u> Desmodosmus subspicatus > 500 mg/196 h Desmodosmus subspicatus > 500 mg/172 h |
| Amino silane monomer | N.D. |
| Silane monomer | N.D. |
| Silane | N.D. |
| Silane | N.D. |
| Methoxysilane | N.D. |

PERSISTENCE AND DEGRADABILITY: Not determined for this product.

BIOACCUMULATIVE: Not determined for this product.

MOBILITY IN SOIL: Not determined for this product.

OTHER ADVERSE EFFECTS: Not determined for this product.

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| 13. DISPOSAL CONSIDERATIONS |
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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.

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| 14. TRANSPORT INFORMATION |
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US DOT Road

Proper Shipping Name: Adhesives
Hazard Class: 3
SECONDARY HAZARD: None
UN/NA Number: 1133
Packing Group: II
Emergency Response Guide Number: 128

IATA Cargo

PROPER SHIPPING NAME: Adhesives
Hazard Class: 3
HAZARD CLASS: None
UN-NUMBER: 1133
PACKING GROUP: II
EMS: 3L

IMDG

PROPER SHIPPING NAME: Adhesives
Hazard Class: 3
HAZARD CLASS: None
UN-NUMBER: 1133
PACKING GROUP: II
EMS: F-E

The listed transportation classification applies to non-bulk 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.

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| 15. REGULATORY INFORMATION |
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U.S. FEDERAL REGULATIONS: AS FOLLOWS:

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> |
|----------------------|-------------------|---------------------------|
| Isopropanol | 67-63-0 | 85.0 % |
| N-Butanol | 71-36-3 | 10.0 % |

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

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| 16. OTHER INFORMATION |
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Under HazCom 2012 it is optional to continue using the HMIS rating system. It is important to ensure employees have been trained to recognize the different numeric ratings associated with the HazCom 2012 and HMIS schemes.

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

* - Indicates a chronic hazard; see Section 2

Revision: Section 2

Effective Date: 01/29/2019

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| DISCLAIMER |
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