

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Product name: **LORD® 322**  
Product Use/Class: **Epoxy Adhesive, Part 2 of 2**

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:** 03/08/2024

**2. HAZARDS IDENTIFICATION****GHS CLASSIFICATION:**

Acute toxicity Oral Category 4 - 29.0% of the mixture consists of ingredient(s) of unknown toxicity.  
Acute toxicity Inhalation - Dust and Mist Category 4 - 19.0% of the mixture consists of ingredient(s) of unknown toxicity.  
Acute toxicity Inhalation - Vapour Category 4 - 19.0% of the mixture consists of ingredient(s) of unknown toxicity.  
Serious eye damage/eye irritation Category 1  
Skin sensitization Category 1A  
Germ cell mutagenicity Category 2  
Reproductive toxicity Category 2  
Specific target organ systemic toxicity (single exposure) Category 1 Cardiovascular system, Respiratory system, Kidney, Nervous System  
Specific target organ systemic toxicity (repeated exposure) Category 1 Respiratory system  
Hazardous to the aquatic environment - acute hazard Category 2  
Hazardous to the aquatic environment - chronic hazard Category 2

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

DANGER

**Hazard statements**

Harmful if swallowed.  
Harmful if inhaled.  
Causes serious eye damage.  
May cause an allergic skin reaction.  
Suspected of causing genetic defects.  
Suspected of damaging fertility or the unborn child.  
Causes damage to organs.(Cardiovascular system, Respiratory system, Kidney, Nervous System)  
Causes damage to organs through prolonged or repeated exposure.(Respiratory system)  
Toxic to aquatic life.  
Toxic to aquatic life with long lasting effects.

**Precautionary statements**

### Prevention

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Wear protective gloves, eye protection, face protection.
- Use personal protective equipment as required.
- Do not breathe dust, fume, 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.
- Avoid release to the environment.

### 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.
- Wash contaminated clothing before reuse.
- Collect spillage.

### Storage

- 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:** May be harmful if absorbed through skin. 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 headache and nausea. A skin corrosivity study performed on this product or a similar product concludes that it is not corrosive to skin.

**Chronic:** Prolonged or repeated contact may result in dermatitis. May affect the gastrointestinal system. May cause liver damage. May cause long-term lung damage.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients above the threshold concentration

Chemical Name	CAS Number	Range
Polyamide resin	PROPRIETARY	15 - 20 %
Phenol	108-95-2	10 - 15 %
Amine compound	PROPRIETARY	5 - 10 %
Amine compound	PROPRIETARY	1 - 5 %
Amine compound	PROPRIETARY	1 - 5 %
Amine compound	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:** Do not use water jet as this may spread the fire.

**SPECIFIC HAZARDS POSSIBLY ARISING FROM THE CHEMICAL:** Keep container tightly closed. 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. If water is used, fog nozzles are preferable.

## 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:** 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 this safety data sheet. Scoop spilled material into an appropriate container for proper disposal. (If necessary, use inert absorbent material to aid in containing the spill).

## 7. HANDLING AND STORAGE

**HANDLING:** Keep closure tight and container upright to prevent leakage. 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.

**STORAGE:** Store only in well-ventilated areas. Keep container closed when not in use.

**INCOMPATIBILITY:** Strong acids, bases, and strong oxidizers.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### COMPONENT EXPOSURE LIMIT

<b>Chemical Name</b>	<b>ACGIH TLV-TWA</b>	<b>ACGIH TLV-STEL</b>	<b>OSHA PEL-TWA</b>	<b>OSHA PEL-CEILING</b>	<b>Skin</b>
Polyamide resin	N.E.	N.E.	N.E.	N.E.	Not applicable
Phenol	5 ppm	N.E.	19 mg/m3 5 ppm	N.E.	S
Amine compound	N.E.	N.E.	N.E.	N.E.	Not applicable
Amine compound	1 ppm	N.E.	N.E.	N.E.	S
Amine compound	N.E.	N.E.	N.E.	N.E.	Not applicable
Amine compound	N.E.	N.E.	N.E.	N.E.	Not applicable

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.

**PERSONAL PROTECTION MEASURES/EQUIPMENT:**

**Respiratory protection:** Use a NIOSH approved air-purifying organic vapor respirator 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.

**Skin protection:** Use neoprene, nitrile, or rubber gloves to prevent skin contact. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

**Eye protection:** Use safety eyewear including safety glasses with side shields and chemical goggles where splashing may occur.

**Other protective equipment:** Remove and wash contaminated clothing before reuse.

**Hygienic practices:** Wash hands before eating, smoking, or using toilet facility. 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.

<b>Odor:</b>	Amine	<b>Vapor Pressure:</b>	N.D.
<b>Appearance:</b>	Gray	<b>Vapor density:</b>	Heavier than Air
<b>Physical state:</b>	Liquid	<b>Lower explosion limit:</b>	1.1 %(V)
<b>Flash point:</b>	≥ 201 °F, 93 °C	<b>Upper explosive limit:</b>	8.6 %(V)
	Setaflash Closed Cup	<b>Evaporation rate:</b>	N.A.
<b>Boiling range:</b>	N.A.	<b>Density:</b>	1.24 g/cm <sup>3</sup> (10.32 lb/gal)
<b>Autoignition temperature:</b>	N.D.	<b>Viscosity, dynamic:</b>	≥450,000 mPa.s @ 25 °C
<b>Decomposition temperature:</b>	N.D.	<b>Viscosity, kinematic:</b>	≥362,903 mm <sup>2</sup> /s @ 25 °C
<b>Odor threshold:</b>	N.D.	<b>Volatile by weight:</b>	0.01 %
<b>Solubility in H<sub>2</sub>O:</b>	Insoluble	<b>Volatile by volume:</b>	0.01 %
<b>pH:</b>	N.A.	<b>VOC Calculated:</b>	0 lb/gal, 0 g/l
<b>Freeze point:</b>	N.D.		
<b>Coefficient of water/oil distribution:</b>	N.D.		

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

**10. STABILITY AND REACTIVITY**

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

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

**CONDITIONS TO AVOID:** High temperatures.

**INCOMPATIBILITY:** Strong acids, bases, and strong oxidizers.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Does not decompose when used and stored as recommended., Carbon monoxide, carbon dioxide, organic or inorganic nitrogen compounds including traces of hydrogen cyanide., Oxides of aluminum

**11. TOXICOLOGICAL INFORMATION**

**EXPOSURE PATH:** Refer to section 2 of this SDS.

**SYMPTOMS:** Refer to section 2 of this SDS.

**TOXICITY MEASURES:**

<b>Chemical Name</b>	<b>LD50/LC50</b>
Polyamide resin	Dermal LD50: Rat > 2,000 mg/kg
Phenol	Oral LD50: Rat 340 mg/kg Oral LD50: Mouse 270 mg/kg Dermal LD50: Rabbit 630 mg/kg GHS LC50 (dust and mist): Acute toxicity point estimate 0.55 mg/l
Amine compound	N.D.
Amine compound	Oral LD50: Rat 1,080 mg/kg GHS LC50 (dust and mist): Rat 0.07 mg/l /4 h
Amine compound	Oral LD50: Rat 2140 µL/kg Dermal LD50: Rabbit 866 mg/kg
Amine compound	Oral LD50: Rat 2,500 mg/kg GHS LD50: Acute toxicity point estimate 1,100 mg/kg

**Germ cell mutagenicity:** Category 2 - Suspected of causing genetic defects.  
Components contributing to classification: Phenol. Amine compound.

**Carcinogenicity:** No classification proposed

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

**12. ECOLOGICAL INFORMATION**

**ECOTOXICITY:**

<b>Chemical Name</b>	<b>Ecotoxicity</b>
Polyamide resin	<u>Fish:</u> Danio rerio 7.07 mg/196 h <u>Invertebrates:</u> Daphnia magna 7.07 mg/148 h
Phenol	<u>Fish:</u> Pimephales promelas 20.5 - 25.6 mg/196 h Static Pimephales promelas 32 mg/196 h Oncorhynchus mykiss 5.449 - 6.789 mg/196 h flow-through Oncorhynchus mykiss 7.5 - 14 mg/196 h Static Oncorhynchus mykiss 4.23 - 7.49 mg/196 h semi-static Lepomis macrochirus 13.5 mg/196 h Static Lepomis macrochirus 11.9 - 25.3 mg/196 h flow-through Lepomis macrochirus 11.5 mg/196 h semi-static Poecilia reticulata 34.09 - 47.64 mg/196 h Static Poecilia reticulata 31 mg/196 h semi-static Brachydanio rerio 27.8 mg/196 h Oryzias latipes 33.9 - 43.3 mg/196 h flow-through Oryzias latipes 23.4 - 36.6 mg/196 h Static Pimephales promelas 11.9 - 50.5 mg/196 h flow-through Oncorhynchus mykiss 8.9 mg/196 h <u>Invertebrates:</u> Daphnia magna 4.24 - 10.7 mg/148 h Static Daphnia magna 10.2 - 15.5 mg/148 h Ceriodaphnia dubia 0.0994 mg/148 h <u>Plants:</u> Pseudokirchneriella subcapitata 46.42 mg/196 h Desmodesmus subspicatus 187 - 279 mg/172 h Static
Amine compound	N.D.
Amine compound	<u>Fish:</u> Poecilia reticulata 248 mg/196 h Static Poecilia reticulata 1,014 mg/196 h semi-static <u>Invertebrates:</u> Daphnia magna 16 mg/148 h <u>Plants:</u> Pseudokirchneriella subcapitata 1,164 mg/172 h Pseudokirchneriella subcapitata 345.6 mg/196 h Desmodesmus subspicatus 592 mg/196 h
Amine compound	<u>Fish:</u> Pimephales promelas 1,950 - 2,460 mg/196 h flow-through Poecilia reticulata > 1,000 mg/196 h semi-static Oncorhynchus mykiss >= 100 mg/196 h semi-static <u>Invertebrates:</u> Daphnia magna 32 mg/148 h <u>Plants:</u> Pseudokirchneriella subcapitata 495 mg/172 h

Amine compound	<u>Fish:</u> Poecilia reticulata 570 mg/196 h semi-static Pimephales promelas 495 mg/196 h <u>Invertebrates:</u> Daphnia magna 31.1 mg/148 h
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**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.

**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**

**US DOT Road**

**Proper Shipping Name:** Environmentally hazardous substance, liquid, n.o.s.  
**Hazard Class:** 9  
**Secondary hazard:** None  
**UN/NA Number:** 3082  
**Packing group:** III  
**Emergency Response Guide Number:** 171

For US DOT non-bulk road shipments this material may be classified as NOT REGULATED. For the most accurate shipping information, refer to your transportation/compliance department regarding changes in package size, mode of shipment or other regulatory descriptors.

**IATA Cargo**

**Proper shipping name:** Environmentally hazardous substance, liquid, n.o.s.  
**Hazard Class:** 9  
**Hazard class:** None  
**UN number:** 3082  
**Packing group:** III  
**EmS:** 9L

**IMDG**

**Proper shipping name:** Environmentally hazardous substance, liquid, n.o.s.  
**Hazard Class:** 9  
**Hazard class:** None  
**UN number:** 3082  
**Packing group:** III  
**EmS:** F-A; S-F

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.

**15. REGULATORY INFORMATION**

**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 percent less than</u>
Phenol	108-95-2	15.0 %

**TOXIC SUBSTANCES CONTROL ACT:**

**INVENTORY STATUS**

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

**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

<b>16. OTHER INFORMATION</b>
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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: 1 PHYSICAL HAZARD: 0**

\* - Indicates a chronic hazard; see Section 2

**Revision:** Section 1, Section 2, Section 11, Section 12, Section 14

**Effective Date:** 03/08/2024

<b>DISCLAIMER</b>
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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.