

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **THERMOSET® UR-312 RESIN**
Product Use/Class: **Encapsulant, Part A**

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: 09/13/2024

2. HAZARDS IDENTIFICATION**GHS CLASSIFICATION:**

Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A
Reproductive toxicity Category 2

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

WARNING

Hazard statements

Causes skin irritation.
Causes serious eye irritation.
Suspected of damaging fertility or the unborn child.

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.
Wash thoroughly after handling.

Response

IF exposed or concerned: Get medical advice, attention.
Specific treatment (see supplemental first aid instructions on this label).
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation occurs: Get medical advice, attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
If eye irritation persists: Get medical advice, attention.
Take off contaminated clothing and wash before reuse.

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: Processing releases vapors which may cause eye, skin and respiratory tract irritation. May be harmful if swallowed. Ingestion is not an expected route of entry in industrial or commercial uses.

Chronic: This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300 degrees F (150 C) and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and known cancer hazard. Workplace exposure to formaldehyde is regulated by OSHA Standard 29 CFR 1910.1048.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients above the threshold concentration

Chemical Name	CAS Number	Range
Diundecyl phthalate	PROPRIETARY	15 - 20 %
Methylenebis(methyl-tertiarybutyl phenol)	119-47-1	0.1 - 0.9 %
1,1,3-Tris(2-Me-4-hydroxy-5-tert-butylphenyl)butane	1843-03-4	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: This material is not likely to be hazardous by inhalation. However, if exposed to excessive levels of vapor or mist, remove to fresh air, give oxygen if breathing is difficult, and 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.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS: Wear full firefighting protective clothing, including self contained breathing apparatus. During a fire, irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Avoid breathing vapors. Avoid contact.

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

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

7. HANDLING AND STORAGE

HANDLING: Avoid breathing processing fumes or vapors. Keep closure tight and container upright to prevent leakage. Avoid skin and eye contact. Wash thoroughly after handling. 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 and oxidizers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT EXPOSURE LIMIT

Chemical Name	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING	Skin
Diundecyl phthalate	N.E.	N.E.	N.E.	N.E.	Not applicable
Methylenebis(methyl-tertiarybutyl phenol)	N.E.	N.E.	N.E.	N.E.	Not applicable
1,1,3-Tris(2-Me-4-hydroxy-5-tert-butylphenyl)butane	N.E.	N.E.	N.E.	N.E.	Not applicable

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

ENGINEERING CONTROLS: Provide adequate general ventilation where this product is used.

PERSONAL PROTECTION MEASURES/EQUIPMENT:

Respiratory protection: Respiratory protection is not required under normal working conditions where adequate ventilation is present. 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. 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. 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:	Slight	Vapor Pressure:	N.D.
Appearance:	Amber	Vapor density:	Heavier than Air
Physical state:	Liquid	Lower explosion limit:	N.A.
Flash point:	≥ 201 °F, 93 °C	Upper explosive limit:	N.A.
	Setaflash Closed Cup		
Boiling range:	N.A.	Evaporation rate:	N.A.
Autoignition temperature:	N.D.	Density:	0.91 g/cm ³ (7.60 lb/gal)
Decomposition temperature:	N.D.	Viscosity, dynamic:	≥3,750 mPa.s @ 25 °C
Odor threshold:	N.D.	Viscosity, kinematic:	≥4,121 mm ² /s @ 25 °C
Solubility in H₂O:	Insoluble	Volatile by weight:	0.00 %

pH:	N.A.	Volatile by volume:	0.00 %
Freeze point:	N.D.	VOC Calculated:	0 lb/gal, 0 g/l
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 polymerisation will not occur under normal conditions.

STABILITY: Product is stable under normal storage conditions.

CONDITIONS TO AVOID: Moisture; High temperatures.

INCOMPATIBILITY: Strong acids and oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Does not decompose when used and stored as recommended., Carbon monoxide, carbon dioxide, aldehydes., Acids, Oxides of butadiene, Formaldehyde.

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
Diundecyl phthalate	Oral LD50: Rat > 15,800 mg/kg Dermal LD50: Rabbit > 7.9 g/kg Inhalation LC50: Rat > 1.8 mg/l /6 h
Methylenebis(methyl-tertiarybutyl phenol)	Oral LD50: Rat > 10,000 mg/kg Dermal LD50: Rabbit > 10,000 mg/kg
1,1,3-Tris(2-Me-4-hydroxy-5-tert-butylphenyl)butane	Oral LD50: Rat 14,000 mg/kg Dermal LD50: Rat > 2,000 mg/kg

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: Methylenebis(methyl-tertiarybutyl phenol).

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

Chemical Name	Ecotoxicity
Diundecyl phthalate	Invertebrates: Daphnia magna 15 mg/l48 h
Methylenebis(methyl-tertiarybutyl phenol)	N.D.
1,1,3-Tris(2-Me-4-hydroxy-5-tert-butylphenyl)butane	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.

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

This product is NOT REGULATED for non-bulk shipments. For the most accurate shipping information, refer to your transportation/compliance department regarding changes in package size, mode of shipment or other regulatory descriptors.

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.:

None

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

16. OTHER INFORMATION

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: 1 FLAMMABILITY: 1 PHYSICAL HAZARD: 0

* - Indicates a chronic hazard; see Section 2

Revision: Section 1, Section 2

Effective Date: 09/13/2024

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.