

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **VERSILOK® 281**
Product Use/Class: **Acrylic Adhesive, Part 1 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: 03/08/2023

2. HAZARDS IDENTIFICATION**GHS CLASSIFICATION:**

Flammable liquids Category 4
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 1
Skin sensitization Category 1
Reproductive toxicity Category 2
Specific target organ systemic toxicity (single exposure) Category 1 Respiratory system
Specific target organ systemic toxicity (single exposure) Category 3
Specific target organ systemic toxicity (repeated exposure) Category 1 Respiratory system

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

DANGER

Hazard statements

Combustible liquid.
Causes skin irritation.
Causes serious eye damage.
May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.
Causes damage to organs.(Respiratory system)
May cause respiratory irritation.
Causes damage to organs through prolonged or repeated exposure.(Respiratory system)

Precautionary statements**Prevention**

Keep away from heat, sparks, open flames, hot surfaces. - No smoking.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves, protective clothing, 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.

Response

In case of fire: refer to section 5 of SDS for extinguishing media.
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.
Take off contaminated clothing and wash before reuse.

Storage

Store in a well-ventilated place. Keep cool.
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: May be harmful if swallowed. Ingestion is not an expected route of entry in industrial or commercial uses.

Chronic: No additional hazards determined for this product outside of the GHS classification.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients above the threshold concentration

Chemical Name	CAS Number	Range
Methacrylate blend	PROPRIETARY	30 - 35 %
Methacrylic acid	79-41-4	1 - 5 %
Methacrylate phosphate ester	PROPRIETARY	1 - 5 %
Methacrylate monomer	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: Combustible liquid and vapor. Keep container 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. 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 breathing vapors. Use self-contained breathing equipment. 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: 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. Use with adequate ventilation. Do not smoke where this product is used or stored.

STORAGE: Store only in well-ventilated areas. Keep container closed when not in use. Refer to OSHA 29CFR Part 1910.106 "Flammable and Combustible Liquids" for specific storage requirements.

INCOMPATIBILITY: Inorganic acids, organic acids, caustics, amines, peroxides, polymerization inhibitors.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT EXPOSURE LIMIT

<u>Chemical Name</u>	<u>ACGIH TLV-TWA</u>	<u>ACGIH TLV-STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL-CEILING</u>	<u>Skin</u>
Methacrylate blend	N.E.	N.E.	N.E.	N.E.	Not applicable
Methacrylic acid	20 ppm	N.E.	N.E.	N.E.	S
Methacrylate phosphate ester	N.E.	N.E.	N.E.	N.E.	Not applicable
Methacrylate monomer	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. If contact with the product is prolonged or repeated, Silver Shield or Butyl rubber gloves are recommended.

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. 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:	Acrylate	Vapor Pressure:	N.D.
Appearance:	Tan	Vapor density:	Heavier than Air
Physical state:	Paste	Lower explosion limit:	1.6 %(V)
Flash point:	179 °F, 82 °C	Upper explosive limit:	8.8 %(V)
	Setaflash Closed Cup		
Boiling range:	N.A.	Evaporation rate:	Slower than n-butyl-acetate
Autoignition temperature:	N.D.	Density:	1.06 g/cm ³ (8.80 lb/gal)
Decomposition temperature:	N.D.	Viscosity, dynamic:	≥300,000 mPa.s @ 25 °C
Odor threshold:	N.D.	Viscosity, kinematic:	≥283,019 mm ² /s @ 25 °C
Solubility in H₂O:	Insoluble	Volatile by weight:	0.55 %
pH:	N.A.	Volatile by volume:	0.60 %
Freeze point:	N.D.	VOC Calculated:	0.01 lb/gal, 2 g/12 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: Storage above 100 degrees F and below 32 degrees F. Exposure to sunlight, ultraviolet light irradiation. Avoid dropping or puncture of containers.

INCOMPATIBILITY: Inorganic acids, organic acids, caustics, amines, peroxides, polymerization inhibitors.

HAZARDOUS DECOMPOSITION PRODUCTS: Does not decompose when used and stored as recommended., Carbon monoxide, carbon dioxide, oxides of nitrogen.

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
Methacrylate blend	Oral LD50: rat > 5,000 mg/kg Dermal LD50: rat > 2,000 mg/kg Dermal LD50: Rat > 2,000 mg/kg Inhalation LC50: Mouse 55 mg/l /3 h
Methacrylic acid	Dermal LD50: Rabbit 500 - 1,000 mg/kg GHS LC50 (vapour): Acute toxicity point estimate 11 mg/l GHS LC50 (dust and mist): Rat 7.1 mg/l /4 h
Methacrylate phosphate ester	Oral LD50: rat > 5,000 mg/kg
Methacrylate monomer	Oral LD50: Rat 5,050 mg/kg Dermal LD50: Rabbit > 3,000 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: Cyclohexanol.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

Chemical Name	Ecotoxicity
Methacrylate blend	<u>Fish:</u> Danio rerio 590 mg/196 h Flow through <u>Invertebrates:</u> Daphnia magna 37 mg/121 d semi-static
Methacrylic acid	<u>Fish:</u> Oncorhynchus mykiss 85 mg/196 h Flow through <u>Invertebrates:</u> Daphnia magna > 130 mg/148 h Daphnia magna >= 53 mg/121 d semi-static
Methacrylate phosphate ester	<u>Fish:</u> Oncorhynchus mykiss > 112 mg/196 h Static
Methacrylate monomer	<u>Fish:</u> Pimephales promelas 213 - 242 mg/196 h Flow through Pimephales promelas 227 mg/196 h Oryzias latipes > 100 mg/196 h <u>Invertebrates:</u> Daphnia magna 380 mg/148 h Daphnia magna 24.1 mg/121 d Static

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: 2* FLAMMABILITY: 2 PHYSICAL HAZARD: 1

* - Indicates a chronic hazard; see Section 2

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

Effective Date: 03/08/2023

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.