

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **VERSILOK® 271**
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:**

Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 1
Skin sensitization Category 1
Reproductive toxicity Category 1B
Specific target organ systemic toxicity (single exposure) Category 3
Hazardous to the aquatic environment - acute hazard Category 3
Hazardous to the aquatic environment - chronic hazard Category 3

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

DANGER

Hazard statements

Causes skin irritation.
Causes serious eye damage.
May cause an allergic skin reaction.
May damage fertility or the unborn child.
May cause respiratory irritation.
Harmful to aquatic life.
Harmful 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.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
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.

Take off contaminated clothing and wash 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: May be harmful if swallowed. Ingestion is not an expected route of entry in industrial or commercial uses.

Chronic: IARC has designated titanium dioxide (TiO₂) as Group 2B – possibly carcinogenic to humans in dust form. However, a number of long term animal studies and human epidemiology studies evaluating TiO₂ and workplace exposure show insufficient evidence for carcinogenic effects. EPA, NTP and OSHA do not designate TiO₂ as a carcinogen and ACGIH designates TiO₂ as A4 - not classifiable as a human carcinogen. Mortality from other chronic diseases, including other respiratory diseases, was not associated with exposure to TiO₂ dust. TiO₂ is not present in this product as a dust and no airborne exposure is expected during application.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients above the threshold concentration

Chemical Name	CAS Number	Range
Tetrahydrofurfuryl methacrylate	2455-24-5	30 - 35 %
Methacrylate monomer	PROPRIETARY	1 - 5 %
Methacrylate phosphate ester	PROPRIETARY	1 - 5 %
Titanium dioxide	13463-67-7	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: 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 breathing vapors. Avoid contact. Use appropriate respiratory protection for large spills or spills in confined area.

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. 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. 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. 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 strong bases; Metals; Reducing agents; Peroxides and oxidizing agents.

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>
Tetrahydrofurfuryl methacrylate	N.E.	N.E.	N.E.	N.E.	Not applicable
Methacrylate monomer	N.E.	N.E.	N.E.	N.E.	Not applicable
Methacrylate phosphate ester	N.E.	N.E.	N.E.	N.E.	Not applicable
Titanium dioxide	10 mg/m3	N.E.	15 mg/m3	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. 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 glasses with side shields as minimum protection.

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.

Odor:	Acrylic	Vapor Pressure:	N.D.
Appearance:	White	Vapor density:	Heavier than Air
Physical state:	Paste	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:	Slower than n-butyl-acetate
Autoignition temperature:	N.D.	Density:	1.14 g/cm ³ (9.51 lb/gal)
Decomposition temperature:	N.D.	Viscosity, dynamic:	N.D.
Odor threshold:	N.D.	Viscosity, kinematic:	N.D.
Solubility in H₂O:	Insoluble	Volatile by weight:	0.15 %
pH:	N.A.	Volatile by volume:	0.17 %
Freeze point:	N.D.	VOC Calculated:	0 lb/gal, 0 g/10 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: High temperatures.; Heat, flames and sparks.; The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is noticeably exceeded, the product may polymerize with heat evolution.

INCOMPATIBILITY: Strong acids and strong bases; Metals; Reducing agents; Peroxides and oxidizing agents.

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., Metal oxides

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
Tetrahydrofurfuryl methacrylate	Oral LD50: Rat 3,945 mg/kg
Methacrylate monomer	N.D.
Methacrylate phosphate ester	Oral LD50: rat > 5,000 mg/kg
Titanium dioxide	Oral LD50: Rat > 10,000 mg/kg Dermal LD50: rabbit > 5,000 mg/kg GHS LC50 (dust and mist): Rat > 6.82 mg/l /4 h
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 1B - May damage fertility or the unborn child.

Components contributing to classification: Tetrahydrofurfuryl methacrylate.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

Chemical Name	Ecotoxicity
Tetrahydrofurfuryl methacrylate	<u>Fish:</u> Pimephales promelas 34.7 mg/196 h <u>Invertebrates:</u> Daphnia magna 37.2 mg/121 d semi-static
Methacrylate monomer	N.D.
Methacrylate phosphate ester	<u>Fish:</u> Oncorhynchus mykiss > 112 mg/196 h Static
Titanium dioxide	<u>Fish:</u> Oncorhynchus mykiss > 100 mg/196 h <u>Invertebrates:</u> Daphnia magna > 100 mg/148 h
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: 3* FLAMMABILITY: 1 PHYSICAL HAZARD: 2

* - 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.