

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **LORD® 410**
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: 10/02/2024

2. HAZARDS IDENTIFICATION**GHS CLASSIFICATION:**

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

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

DANGER

Hazard statements

Highly flammable liquid and vapor.
Causes skin irritation.
Causes serious eye damage.
May cause an allergic skin reaction.
Suspected of causing cancer.
May cause respiratory irritation.
Harmful to aquatic life.

Precautionary statements**Prevention**

Keep away from heat, sparks, open flames, hot surfaces. - No smoking.
Ground, bond container and receiving equipment.
Use explosion-proof electrical, ventilating, lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
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.

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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

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 (or hair): Remove, take off immediately all contaminated clothing. Rinse skin with water, shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.

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 cause central nervous system depression characterized by the following progressive steps: headache, dizziness, staggering gait, confusion, unconsciousness or coma. May be harmful if swallowed. Ingestion is not an expected route of entry in industrial or commercial uses.

Chronic: Prolonged exposure to the silica-containing sanding dust of this product could cause long-term lung damage. Crystalline silica is classified by IARC and NTP as a known human carcinogen as a respirable dust. The silica in Parker Lord products is not in a form that can be inhaled and presents no risk to the end user. No exposure is expected during normal use of this product. Sanding or abrading the cured materials is not recommended. Wear appropriate respiratory protection if exposure to dusts is possible. Contains N,N-Dimethylaniline. Excessive overexposure by skin absorption or ingestion may result in anoxia due to the formation of methemoglobin. This condition impairs the blood's ability to transport oxygen.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients above the threshold concentration

| Chemical Name | CAS Number | Range |
|------------------------------|-------------|-------------|
| Methyl methacrylate | 80-62-6 | 30 - 35 % |
| Methacrylate blend | PROPRIETARY | 1 - 5 % |
| Methacrylate phosphate ester | PROPRIETARY | 1 - 5 % |
| Methacrylic acid | 79-41-4 | 1 - 5 % |
| Crystalline silica | 14808-60-7 | 0.1 - 0.9 % |
| N,N-Dimethylaniline | 121-69-7 | 0.1 - 0.9 % |
| 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: Flammable 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 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. Using non-sparking tools, scoop the spilled material into a 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. 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. 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: 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, oxidizing agents, amines, peroxides.

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> |
|------------------------------|---------------------------|----------------------------|--------------------------|------------------------------|----------------|
| Methyl methacrylate | 50 ppm | 100 ppm | 410 mg/m3 100 ppm | N.E. | Not applicable |
| Methacrylate blend | N.E. | N.E. | N.E. | N.E. | Not applicable |
| Methacrylate phosphate ester | N.E. | N.E. | N.E. | N.E. | Not applicable |
| Methacrylic acid | 20 ppm | N.E. | N.E. | N.E. | S |

| | | | | | |
|----------------------|-------|--------|-------------------------------|------|----------------|
| Crystalline silica | N.E. | N.E. | 0.05 mg/m ³ | N.E. | Not applicable |
| N,N-Dimethylaniline | 5 ppm | 10 ppm | 25 mg/m ³ 5 ppm | N.E. | S |
| 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. 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 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: | Sweet | Vapor Pressure: | N.D. |
| Appearance: | Off-white | Vapor density: | Heavier than Air |
| Physical state: | Paste | Lower explosion limit: | 1 %(V) |
| Flash point: | 59 °F, 15 °C Setaflash | Upper explosive limit: | 8.8 %(V) |
| | Closed Cup | | |
| Boiling range: | N.A. | Evaporation rate: | Slower than n-butyl-acetate |
| Autoignition temperature: | N.D. | Density: | 1.126 g/cm ³ (9.40 lb/gal) |
| Decomposition temperature: | N.D. | Viscosity, dynamic: | ≥200,000 mPa.s @ 25 °C |
| Odor threshold: | N.D. | Viscosity, kinematic: | ≥176,991 mm ² /s @ 25 °C |
| Solubility in H₂O: | Insoluble | Volatile by weight: | 0.04 % |
| pH: | N.A. | Volatile by volume: | 0.04 % |
| 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: Storage above 100 degrees F (37°C) and below 32 degrees F (0°C). Exposure to sunlight, ultraviolet light irradiation. Avoid dropping or puncture of containers.

INCOMPATIBILITY: Inorganic acids, organic acids, caustics, oxidizing agents, amines, peroxides.

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 |
|------------------------------|---|
| Methyl methacrylate | Oral LD50: Rat 8,420 - 10,000 mg/kg Dermal LD50: Rabbit > 5 g/kg Dermal LD50: Rabbit 5,000 - 7,500 mg/kg GHS LC50 (vapour): Rat 29.8 mg/l /4 h |
| Methacrylate blend | Oral LD50: rat > 5,000 mg/kg Dermal LD50: Rat > 2,000 mg/kg Inhalation LC50: Mouse 55 mg/l /3 h GHS LC50 (vapour): Rat 29.8 mg/l /4 h |
| Methacrylate phosphate ester | Oral LD50: rat > 5,000 mg/kg |
| Methacrylic acid | Oral LD50: Rat 1,320 mg/kg 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 |
| Crystalline silica | GHS LC50 (vapour): Acute toxicity point estimate 55 mg/l |
| N,N-Dimethylaniline | Oral LD50: Rat 951 mg/kg Dermal LD50: Rabbit 1,770 mg/kg GHS LC50 (vapour): Acute toxicity point estimate 3.0 mg/l |
| Methacrylate monomer | Oral LD50: Rat 5,564 mg/kg Dermal LD50: Rabbit > 5,000 mg/kg |

Germ cell mutagenicity: No classification proposed

Carcinogenicity: Category 2 - Suspected of causing cancer.

Components contributing to classification: N,N-Dimethylaniline.

Reproductive toxicity: No classification proposed

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

| Chemical Name | Ecotoxicity |
|------------------------------|---|
| Methyl methacrylate | <u>Fish:</u> Oncorhynchus mykiss > 79 mg/196 h flow-through Oncorhynchus mykiss > 100 mg/196 h <u>Invertebrates:</u> Daphnia magna 69 mg/148 h <u>Plants:</u> Pseudokirchneriella subcapitata 170 mg/196 h Pseudokirchneriella subcapitata 110 mg/172 h |
| Methacrylate blend | <u>Fish:</u> Danio rerio 590 mg/196 h flow-through <u>Invertebrates:</u> Daphnia magna 37 mg/121 d semi-static |
| Methacrylate phosphate ester | <u>Fish:</u> Oncorhynchus mykiss > 112 mg/196 h 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 |
| Crystalline silica | N.D. |
| N,N-Dimethylaniline | <u>Fish:</u> Pimephales promelas 52.6 mg/196 h flow-through Pimephales promelas 65.6 mg/196 h Poecilia reticulata 53.7 mg/196 h semi-static Brachydanio rerio 51.1 mg/196 h semi-static Brachydanio rerio 0.183 - 0.186 mg/196 h |

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|----------------------|--|
| | <u>Invertebrates:</u> Daphnia magna 5 mg/148 h <u>Plants:</u> Desmodium subspicatus 340 mg/196 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

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; S-D

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> |
|----------------------|-------------------|---------------------------------|
| Methyl methacrylate | 80-62-6 | 35.0 % |
| N,N-Dimethylaniline | 121-69-7 | 0.9 % |

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: 3 PHYSICAL HAZARD: 1

* - Indicates a chronic hazard; see Section 2

Revision: Section 1, Section 2, Section 9, Section 11, Section 12

Effective Date: 10/02/2024

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| DISCLAIMER |
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