USA Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **LORD® 406**
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: 09/18/2024

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

Flammable liquids Category 2
Acute toxicity Oral Category 4 - 48.0% of the mixture consists of ingredient(s) of unknown toxicity.
Skin corrosion/irritation Category 1B
Serious eye damage/eye irritation Category 1
Skin sensitization Category 1
Carcinogenicity Category 2
Specific target organ systemic toxicity (single exposure) Category 3
Specific target organ systemic toxicity (repeated exposure) Category 2
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

Highly flammable liquid and vapor.
Harmful if swallowed.
Causes severe skin burns and eye damage.
Causes serious eye damage.
May cause an allergic skin reaction.
Suspected of causing cancer.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.
Harmful to aquatic life.
Harmful to aquatic life with long lasting effects.

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.
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

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.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Wash contaminated clothing 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: Harmful if absorbed through skin. May cause central nervous system depression characterized by the following progressive steps: headache, dizziness, staggering gait, confusion, unconsciousness or coma. May cause headache and nausea.

Chronic: 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. 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. Prolonged exposure to the silica-containing sanding dust of this product could cause long-term lung damage.

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 %
Amine curative	PROPRIETARY	1 - 5 %
N,N-Dimethylaniline	121-69-7	1 - 5 %

Crystalline silica	14808-60-7	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

Chemical Name	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING	Skin
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
Amine curative	N.E.	N.E.	N.E.	N.E.	Not applicable
N,N-Dimethylaniline	5 ppm	10 ppm	25 mg/m3 5 ppm	N.E.	S
Crystalline silica	N.E.	N.E.	0.05 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. Sufficient ventilation (using explosion-proof equipment) should be provided to prevent flammable vapor/air mixtures from accumulating.

PERSONAL PROTECTION MEASURES/EQUIPMENT:

Respiratory protection: For respirator use observe OSHA regulations (29CFR 1910.134) or use in accordance with applicable laws and regulations of your country or particular locality. Contains a small amount of dimethylaniline (DMA)which has poor odor-warning properties. If the exposure limit for DMA is exceeded, an air-supplied respirator is recommended. Otherwise, a NIOSH approved properly-fitted organic vapor, air purifying respirator is recommended. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air-supplied respirator.

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 Closed Cup	**Upper explosive limit:**	8.8 %(V)
Boiling range:	N.A.	**Evaporation rate:**	Slower than n-butyl-acetate
Autoignition temperature:	N.D.	**Density:**	1.13 g/cm3 (9.40 lb/gal)
Decomposition temperature:	N.D.	**Viscosity, dynamic:**	≥200,000 mPa.s @ 25 °C
Odor threshold:	N.D.	**Viscosity, kinematic:**	≥176,991 mm2/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
Amine curative	Oral LD50: Rat 25 mg/kg Dermal LD50: Rat > 2,000 mg/kg
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
Crystalline silica	GHS LC50 (vapour): Acute toxicity point estimate 55 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	Fish: Oncorhynchus mykiss > 79 mg/l96 h flow-through Oncorhynchus mykiss > 100 mg/l96 h

	Invertebrates: Daphnia magna 69 mg/l48 h Plants: Pseudokirchneriella subcapitata 170 mg/l96 h Pseudokirchneriella subcapitata 110 mg/l72 h
Methacrylate blend	Fish: Danio rerio 590 mg/l96 h flow-through Invertebrates: Daphnia magna 37 mg/l21 d semi-static
Methacrylate phosphate ester	Fish: Oncorhynchus mykiss > 112 mg/l96 h Static
Methacrylic acid	Fish: Oncorhynchus mykiss 85 mg/l96 h flow-through Invertebrates: Daphnia magna > 130 mg/l48 h Daphnia magna >= 53 mg/l21 d semi-static
Amine curative	Fish: Brachydanio rerio 17 mg/l96 h Static Danio rerio 17 mg/l96 h Static Invertebrates: Daphnia magna (Water flea) 28.8 mg/l48 h Static
N,N-Dimethylaniline	Fish: Pimephales promelas 52.6 mg/l96 h flow-through Pimephales promelas 65.6 mg/l96 h Poecilia reticulata 53.7 mg/l96 h semi-static Brachydanio rerio 51.1 mg/l96 h semi-static Brachydanio rerio 0.183 - 0.186 mg/l96 h Invertebrates: Daphnia magna 5 mg/l48 h Plants: Desmodesmus subspicatus 340 mg/l96 h
Crystalline silica	N.D.
Methacrylate monomer	Fish: Pimephales promelas 213 - 242 mg/l96 h flow-through Pimephales promelas 227 mg/l96 h Oryzias latipes > 100 mg/l96 h Invertebrates: Daphnia magna 380 mg/l48 h Daphnia magna 24.1 mg/l21 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.:

Chemical Name	CAS Number	Weight percent less than
Methyl methacrylate	80-62-6	35.0 %
N,N-Dimethylaniline	121-69-7	5.0 %

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

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: 09/18/2024

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.