

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **LORD 810**
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: 08/16/2022

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
- Respiratory 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, Nervous System
- 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.
- Causes skin irritation.
- Causes serious eye damage.
- May cause an allergic skin reaction.
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Suspected of damaging fertility or the unborn child.
- Causes damage to organs.(Respiratory system)
- May cause respiratory irritation.
- May cause drowsiness or dizziness.
- Causes damage to organs through prolonged or repeated exposure.(Respiratory system, Nervous System)
- 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.
In case of inadequate ventilation wear respiratory protection.
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.

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. May be harmful if swallowed. Ingestion is not an expected route of entry in industrial or commercial uses.

Chronic: IARC has designated carbon black as Group 2B - inadequate evidence for carcinogenicity in humans, but sufficient evidence in experimental animals. In 2006 IARC reaffirmed its 1995 finding that there is "inadequate evidence" from human health studies to assess whether carbon black causes cancer in humans. Further, epidemiological evidence from well-conducted investigations has shown no causative link between carbon black exposure and the risk of malignant or non-malignant respiratory disease in humans.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients above the threshold concentration

Chemical Name	CAS Number	Range
Methyl methacrylate	80-62-6	35 - 40 %
Methacrylate monomer	PROPRIETARY	20 - 25 %
Methacrylic acid	79-41-4	1 - 5 %
Methacrylate phosphate ester	PROPRIETARY	1 - 5 %
Itaconic acid	97-65-4	1 - 5 %
Methacrylate blend	PROPRIETARY	0.9 - 1 %

Carbon black	1333-86-4	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. Wash clothing before reuse.

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. Water spray may be ineffective. 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. Contain and remove with inert absorbent material and non-sparking tools. Avoid contact. Before attempting cleanup, refer to hazard caution information in other sections of this safety data sheet.

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. Empty containers should not be re-used. 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: Do not store or use near heat, sparks, or open flame. Store only in well-ventilated areas. Do not puncture, drag, or slide container. Keep container closed when not in use. Refer to OSHA 29CFR Part 1910.106 "Flammable and Combustible Liquids" for specific storage requirements.

INCOMPATIBILITY: Strong acids, bases, and strong oxidizers.; Amines

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/m ³ 100 ppm	N.E.	N.A.
Methacrylate monomer	N.E.	N.E.	N.E.	N.E.	N.A.
Methacrylic acid	20 ppm	N.E.	N.E.	N.E.	S
Methacrylate phosphate ester	N.E.	N.E.	N.E.	N.E.	N.A.
Itaconic acid	N.E.	N.E.	N.E.	N.E.	N.A.
Methacrylate blend	N.E.	N.E.	N.E.	N.E.	N.A.
Carbon black	3 mg/m ³	N.E.	3.5 mg/m ³	N.E.	N.A.
Methacrylate monomer	N.E.	N.E.	N.E.	N.E.	N.A.

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. Caution: Solvent vapors are heavier than air and collect in lower levels of the work area. 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 chemical/mechanical filter respirator designed to remove a combination of particulates and organic vapor 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. 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:	Sweet	Vapor Pressure:	N.D.
Appearance:	Black	Vapor density:	Heavier than Air
Physical state:	Paste	Lower explosion limit:	1.6 %(V)
Flash point:	59 °F, 15 °C Setaflash	Upper explosive limit:	8.8 %(V)
	Closed Cup		
Boiling range:	100 - 334 °C	Evaporation rate:	Faster than n-butyl-acetate.
Autoignition temperature:	N.D.	Density:	0.9525 g/cm ³ (7.95)

Decomposition temperature:	N.D.	Viscosity, dynamic:	lb/gal) ≥85,000 mPa.s @ 25 °C
Odor threshold:	N.D.	Viscosity, kinematic:	≥88,542 mm ² /s @ 25 °C
Solubility in H₂O:	Insoluble	Volatile by weight:	0.03 %
pH:	N.A.	Volatile by volume:	0.03 %
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: High temperatures. Sources of ignition.

INCOMPATIBILITY: Strong acids, bases, and strong oxidizers.; Amines

HAZARDOUS DECOMPOSITION PRODUCTS: Does not decompose when used and stored as recommended., Carbon monoxide, carbon dioxide, and organic or inorganic nitrogen compounds., Corrosive acid vapors

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 Inhalation LC50: Rat 78 mg/l /4 h Inhalation LC50: Rat 29.8 mg/l /4 h
Methacrylate monomer	Oral LD50: Rat > 2,000 mg/kg
Methacrylic acid	Oral LD50: Rat 1,060 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): Acute toxicity point estimate 1.5 mg/l
Methacrylate phosphate ester	Oral LD50: rat > 5,000 mg/kg
Itaconic acid	Oral LD50: Rat 2,969 mg/kg
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
Carbon black	Oral LD50: Rat > 15,400 mg/kg Dermal LD50: Rabbit > 3 g/kg GHS LC50 (vapour): Acute toxicity point estimate 55 mg/l :
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: Methacrylate monomer. Amine catalyst.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

Chemical Name	Ecotoxicity
Methyl methacrylate	<u>Fish:</u> Pimephales promelas 243 - 275 mg/196 h Flow through Pimephales promelas 125.5 - 190.7 mg/196 h Static Lepomis macrochirus 170 - 206 mg/196 h Flow through Lepomis macrochirus 153.9 - 341.8 mg/196 h Static Oncorhynchus mykiss > 79 mg/196 h Flow through Oncorhynchus mykiss > 79 mg/196 h Static Poecilia reticulata 326.4 - 426.9 mg/196 h Static <u>Invertebrates:</u> Daphnia magna 69 mg/148 h Daphnia magna 37 mg/121 d semi-static <u>Plants:</u> Pseudokirchneriella subcapitata 170 mg/196 h
Methacrylate monomer	<u>Fish:</u> Oryzias latipes 2.78 mg/196 h semi-static <u>Invertebrates:</u> Daphnia magna 0.105 mg/121 d static-renewal
Methacrylic acid	<u>Fish:</u> Oncorhynchus mykiss 85 mg/196 h Flow through <u>Invertebrates:</u> Daphnia magna >= 53 mg/121 d semi-static
Methacrylate phosphate ester	<u>Fish:</u> Oncorhynchus mykiss > 112 mg/196 h Static
Itaconic acid	<u>Plants:</u> Desmodemus subspicatus 47 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
Carbon black	N.D.
Methacrylate monomer	<u>Fish:</u> Pimephales promelas 213 - 242 mg/196 h Flow through Pimephales promelas 227 mg/196 h <u>Invertebrates:</u> 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	40.0 %

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 9

Effective Date: 08/16/2022

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.