USA Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **CHEMLOK® 220**
Product Use/Class: **Adhesive**

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: 08/08/2023

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

Flammable liquids Category 3
Acute toxicity Inhalation - Dust and Mist Category 4 - 8.3% of the mixture consists of ingredient(s) of unknown toxicity.
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A
Skin sensitization Category 1
Carcinogenicity Category 1B
Reproductive toxicity Category 2
Specific target organ systemic toxicity (single exposure) Category 1 Central nervous system, Liver, Respiratory system, Kidney
Specific target organ systemic toxicity (single exposure) Category 3
Specific target organ systemic toxicity (single exposure) Category 2 blood system
Specific target organ systemic toxicity (repeated exposure) Category 1 Liver, Nervous System, Respiratory system
Specific target organ systemic toxicity (repeated exposure) Category 2 Ears, blood system
Hazardous to the aquatic environment - acute hazard Category 2
Hazardous to the aquatic environment - chronic hazard Category 3

GHS LABEL ELEMENTS:

Symbol(s)

Signal Word

DANGER

Hazard statements

Flammable liquid and vapor.
Harmful if inhaled.
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
May cause cancer.
Suspected of damaging fertility or the unborn child.
May cause harm to breast-fed children.
Causes damage to organs.(Central nervous system, Liver, Respiratory system, Kidney)

May cause respiratory irritation.
May cause damage to organs.(blood system)
Causes damage to organs through prolonged or repeated exposure.(Liver, Nervous System, Respiratory system)
May cause damage to organs through prolonged or repeated exposure.(Ears, blood system)
Toxic 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.
Call a POISON CENTER or doctor, physician if you feel unwell.
IF exposed: 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 skin irritation or rash occurs: Get medical advice, attention.
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: Vapor harmful; may affect the brain or nervous system causing dizziness, headache or nausea. Possible irritation of the respiratory system can occur causing a variety of symptoms such as dryness of the throat, tightness of the chest, and shortness of breath. In elevated-temperature applications, product may release vapors that may produce cyanosis in the absence of sufficient ventilation or adequate respiratory protection. 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: May affect the gastrointestinal system. The nitrogen substituted aromatic in this product gave positive results for mutagenicity in an Ames Assay study while two other mutagenicity studies proved negative. Overexposure to lead in this product can damage the nervous, urinary, gastrointestinal, blood, blood-forming, and reproductive systems. Lead and lead compounds have been classified by IARC as probable human carcinogens (Group 2A), and by NTP as reasonably anticipated human carcinogens. IARC and NTP have determined that there is sufficient evidence for carcinogenicity of tetrachloroethylene to experimental animals and limited evidence in humans.

Ethylbenzene has been classified by IARC as a possible human carcinogen (Group 2B) and reported by NTP to show clear evidence for carcinogenicity in animals. 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
Xylene	1330-20-7	45 - 50 %
Tetrachloroethylene	127-18-4	15 - 20 %
Ethyl benzene	100-41-4	10 - 15 %
Carbon black	1333-86-4	1 - 5 %
Nitrogen substituted aromatic	PROPRIETARY	1 - 5 %
Lead oxide phosphonate	12141-20-7	1 - 5 %
Toluene	108-88-3	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: Not determined for this product.

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. WARNING: Due to the combustible nature of the dried film of this product and the potential for fire, accumulation/buildup of the dried film on spray booth walls and floors, spindles, fixtures, and other surfaces should be avoided. Keep dried film accumulation away from sparks, friction, high heat (>235 F/>112C) or other sources of ignition. If it becomes necessary to remove accumulation/buildup of this product, take precautions to avoid heat/friction/sparks during the cleaning process. Use paint stripper, brass brush, or plastic scraper for cleaning. In the event of a fire involving the dried product, use water as the extinguishing agent, ensuring that it reaches the base of the fire. Parker Lord will not be responsible for personal injuries or property damages arising from the accumulation/buildup or cleaning/removal of the dried product.

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 contact. Avoid breathing vapors. Use self-contained breathing equipment. See Section 5 for cautionary information on the dried residue of this product.

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. Contain and remove with inert absorbent material and non-sparking tools.

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. Avoid breathing sanding dust from this product. Avoid using pressurizable equipment which has aluminum or zinc parts; this product contains chlorinated solvents. 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. This product contains inorganic lead; potential lead exposure exists when applying or sanding this product. Use of this product should comply with the OSHA Lead Standard (29 CFR 1910.1025) or where applicable the OSHA Construction Standard for lead (29 CFR 1926.62). Do not smoke where this product is used or stored. See Section 5 for cautionary information on handling of the dried residue of this product.

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 oxidizers, acids, bases, water.; Aluminum, zinc, caustics, halogens.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT EXPOSURE LIMIT

Chemical Name	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING	Skin
Xylene	100 ppm	150 ppm	435 mg/m3 100 ppm	N.E.	Not applicable
Tetrachloroethylene	25 ppm	100 ppm	100 ppm	100 ppm	Not applicable
Ethyl benzene	20 ppm	N.E.	435 mg/m3 100 ppm	N.E.	Not applicable
Carbon black	3 mg/m3	N.E.	3.5 mg/m3	N.E.	Not applicable
Nitrogen substituted aromatic	N.E.	N.E.	N.E.	N.E.	Not applicable
Lead oxide phosphonate	0.05 mg/m3	N.E.	0.05 mg/m3	N.E.	Not applicable
Toluene	20 ppm	N.E.	200 ppm	300 ppm	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. 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. 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 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:	Solvent	**Vapor Pressure:**	N.D.
Appearance:	Black	**Vapor density:**	Heavier than Air
Physical state:	Liquid	**Lower explosion limit:**	1 %(V)
Flash point:	83 °F, 28 °C Setaflash Closed Cup	**Upper explosive limit:**	7 %(V)
Boiling range:	121 - 141 °C	**Evaporation rate:**	Slower than n-butyl-acetate
Autoignition temperature:	357 - 360 °C ASTM E-659	**Density:**	1.07 g/cm3 (8.94 lb/gal)
Decomposition temperature:	N.D.	**Viscosity, dynamic:**	≥135 mPa.s @ 25 °C
Odor threshold:	N.D.	**Viscosity, kinematic:**	≥126 mm2/s @ 25 °C
Solubility in H2O:	Insoluble	**Volatile by weight:**	75.21 %
pH:	N.A.	**Volatile by volume:**	84.14 %
Freeze point:	N.D.	**VOC Calculated:**	5.76 lb/gal, 690 g/l
Coefficient of water/oil distribution:	N.D.	**Method 24:**	6.17 lb/gallon

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. Product is stable under normal storage conditions.

CONDITIONS TO AVOID: High temperatures. Sources of ignition.; Aluminum or galvanized parts in a closed system.

INCOMPATIBILITY: Strong oxidizers, acids, bases, water.; Aluminum, zinc, caustics, halogens.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide, carbon monoxide, chlorine, hydrogen chloride., Bromine, hydrogen bromide., Phosgene, Lead fume, 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
Xylene	Oral LD50: Rat 3,523 mg/kg

	Dermal LD50: Rabbit > 4,350 mg/kg GHS LC50 (vapour): 11 mg/l
Tetrachloroethylene	Oral LD50: Rat 2,629 mg/kg Inhalation LC50: Rat 27.8 mg/l /4 h
Ethyl benzene	Oral LD50: Rat 3,500 mg/kg Dermal LD50: Acute toxicity point estimate 1,100 mg/kg Inhalation LC50: Rat 17.4 mg/l /4 h
Carbon black	Oral LD50: Rat > 8,000 mg/kg Dermal LD50: Rabbit > 3 g/kg GHS LC50 (vapour): Acute toxicity point estimate 55 mg/l
Nitrogen substituted aromatic	Oral LD50: rat 1,100 mg/kg
Lead oxide phosphonate	GHS LC50 (vapour): Acute toxicity point estimate 55 mg/l
Toluene	Oral LD50: Rat 5,580 mg/kg Dermal LD50: Rabbit > 5,000 mg/kg GHS LC50 (vapour): Rat 25.7 mg/l /4 h

Germ cell mutagenicity: No classification proposed

Carcinogenicity: Category 1B - May cause cancer.

Components contributing to classification: Tetrachloroethylene. Ethyl benzene. Lead oxide phosphonate.

Reproductive toxicity: Category 2 - Suspected of damaging fertility or the unborn child. May cause harm to breast-fed children.

Components contributing to classification: Xylene. Tetrachloroethylene. Toluene.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

Chemical Name	Ecotoxicity
Xylene	Fish: Pimephales promelas 13.4 mg/l96 h flow-through Lepomis macrochirus 13.1 - 16.5 mg/l96 h flow-through Lepomis macrochirus 19 mg/l96 h Cyprinus carpio 780 mg/l96 h semi-static Oncorhynchus mykiss 2.661 - 4.093 mg/l96 h Static Oncorhynchus mykiss 13.5 - 17.3 mg/l96 h Lepomis macrochirus 7.711 - 9.591 mg/l96 h Static Pimephales promelas 23.53 - 29.97 mg/l96 h Static Cyprinus carpio > 780 mg/l96 h Poecilia reticulata 30.26 - 40.75 mg/l96 h Static Invertebrates: water flea 3.82 mg/l48 h Gammarus lacustris 0.6 mg/l48 h
Tetrachloroethylene	Fish: Pimephales promelas 12.4 - 14.4 mg/l96 h flow-through Pimephales promelas 8.6 - 13.5 mg/l96 h Static Lepomis macrochirus 11.0 - 15.0 mg/l96 h Static Oncorhynchus mykiss 4.73 - 5.27 mg/l96 h flow-through Invertebrates: Daphnia magna 6.1 - 9.0 mg/l48 h Static Plants: Pseudokirchneriella subcapitata > 500 mg/l96 h
Ethyl benzene	Fish: Oncorhynchus mykiss 11.0 - 18.0 mg/l96 h Static Oncorhynchus mykiss 4.2 mg/l96 h semi-static Pimephales promelas 7.55 - 11 mg/l96 h flow-through Lepomis macrochirus 32 mg/l96 h Static Pimephales promelas 9.1 - 15.6 mg/l96 h Static Poecilia reticulata 9.6 mg/l96 h Static Plants: Pseudokirchneriella subcapitata 4.6 mg/l72 h Pseudokirchneriella subcapitata > 438 mg/l96 h
Carbon black	N.D.
Nitrogen substituted aromatic	N.D.
Lead oxide phosphonate	N.D.
Toluene	Fish: Pimephales promelas 15.22 - 19.05 mg/l96 h flow-through Pimephales promelas 12.6 mg/l96 h Static Oncorhynchus mykiss 5.89 - 7.81 mg/l96 h flow-through Oncorhynchus mykiss 14.1 - 17.16 mg/l96 h Static Oncorhynchus mykiss 5.8 mg/l96 h semi-static Lepomis macrochirus 11.0 - 15.0 mg/l96 h Static Oryzias latipes 54 mg/l96 h Static Poecilia reticulata 28.2 mg/l96 h semi-static Poecilia reticulata 50.87 - 70.34 mg/l96 h Static Morone saxatilis 5.5 mg/l96 h

	Invertebrates: Daphnia magna 5.46 - 9.83 mg/l48 h Static Daphnia magna 11.5 mg/l48 h Ceriodaphnia dubia 3.78 mg/l48 h Plants: Pseudokirchneriella subcapitata > 433 mg/l96 h Pseudokirchneriella subcapitata 12.5 mg/l72 h 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:	III
Emergency Response Guide Number:	128

IATA Cargo

Proper shipping name:	Adhesives
Hazard Class:	3
Hazard class:	None
UN number:	1133
Packing group:	III
EmS:	3L

IMDG

Proper shipping name:	Adhesives
Hazard Class:	3
Hazard class:	None
UN number:	1133
Packing group:	III
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
Xylene	1330-20-7	50.0 %
Tetrachloroethylene	127-18-4	20.0 %

Ethyl benzene	100-41-4	15.0 %
Lead oxide phosphonate	12141-20-7	5.0 %
Toluene	108-88-3	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: 0
* - Indicates a chronic hazard; see Section 2

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

Effective Date: 08/08/2023

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.