USA SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **LORD PC10882**
Product Use/Class: **Dielectric Paste**

LORD Corporation
111 LORD Drive
Cary, NC 27511-7923

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: 04/30/2015

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

Flammable liquids Category 4
Acute toxicity Inhalation - Vapours Category 4 - 67.6% of the mixture consists of ingredient(s) of unknown toxicity.
Serious eye damage/eye irritation Category 2A
Skin sensitization Category 1
Respiratory sensitization Category 1
Germ cell mutagenicity Category 1B
Carcinogenicity Category 1A
Reproductive toxicity Category 1B
Specific target organ systemic toxicity (single exposure) Category 1 Blood, Central nervous system, Kidney, Liver
Specific target organ systemic toxicity (single exposure) Category 3
Specific target organ systemic toxicity (repeated exposure) Category 2 Blood
Specific target organ systemic toxicity (repeated exposure) Category 1 Lungs, Respiratory system
Hazardous to the aquatic environment - acute hazard Category 1
Hazardous to the aquatic environment - chronic hazard Category 1

GHS LABEL ELEMENTS:

Symbol(s)

Signal Word

DANGER

Hazard Statements

Combustible liquid
Harmful if inhaled.
Causes serious eye irritation.
May cause an allergic skin reaction.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause genetic defects.
May cause cancer.
May damage fertility or the unborn child.
Causes damage to organs.(Blood, Central nervous system, Kidney, Liver)
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.(Blood)
Causes damage to organs through prolonged or repeated exposure.(Lungs, Respiratory system)
Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
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/gas/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 experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
IF ON SKIN: Wash with plenty of soap and water.
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.
Wash contaminated clothing before reuse.
Collect spillage.

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: Combustible liquid and vapor. 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. Prolonged or repeated overexposure to mist or vapor generated at high temperatures may result in the inhalation of harmful amounts of material. May cause central nervous system depression characterized by the following progressive steps: headache, dizziness, staggering gait, confusion, unconsciousness or coma. May be absorbed through the skin in harmful amounts. Exposure to formaldehyde may cause dry, sore throat; itching and burning of the nose; nasal congestion; cough; chest tightness; and wheezing.Causes skin irritation. Harmful if swallowed. Ingestion is not an expected route of entry in industrial or commercial uses.

Chronic: Prolonged or repeated contact may result in dermatitis. This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300 degrees F (150 C) and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and known cancer hazard. Workplace exposure to formaldehyde is regulated by OSHA Standard 29 CFR 1910.1048. Formaldehyde entrapped in this product may be released during heating and mixing. Formaldehyde has been identified by NTP and IARC as a known human carcinogen (IARC 1), and by OSHA as a potential human carcinogen. Workplace exposure to formaldehyde is regulated by OSHA Standard 29 CFR 1910.1048. IARC has designated cobalt to be in Group 2B - inadequate evidence for carcinogenicity in humans. 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 affects. EPA, NTP and OSHA do not designate TiO2 as a carcinogen and ACGIH designates TiO2 as A4 - not classifiable as a human carcinogen. TiO2 is not present in this product as a dust and no airborne exposure is expected during application. May affect the blood and blood-forming organs.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Range
Blue pigment	PROPRIETARY	20 - 25 %
Titanium dioxide	13463-67-7	15 - 20 %
Glycol ether	PROPRIETARY	10 - 15 %
Cobalt	7440-48-4	10 - 15 %
2-Butoxyethanol	111-76-2	1 - 5 %
Metal compound	PROPRIETARY	1 - 5 %
Formaldehyde	50-00-0	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

SPECIFIC HAZARDS POSSIBLY ARISING FROM THE CHEMICAL: Combustible liquid and vapor. During a fire, irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion. Keep containers 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.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS: Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA). 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.

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. Contain and remove with inert

absorbent material and non-sparking tools. Before attempting cleanup, refer to hazard caution information in other sections of the SDS form.

7. HANDLING AND STORAGE

HANDLING: Keep closure tight and container upright to prevent leakage.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.Refer to OSHA 29CFR Part 1910.106 "Flammable and Combustible Liquids" for specific storage requirements.Store only in well-ventilated areas.Do not puncture, drag, or slide container.Keep container closed when not in use.

INCOMPATIBILITY: Strong acids, bases, and strong oxidizers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT EXPOSURE LIMIT

Chemical Name	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING	Skin
Blue pigment	0.02 mg/m3	N.E.	N.E.	N.E.	N.A.
Titanium dioxide	10 mg/m3	N.E.	15 mg/m3	N.E.	N.A.
Glycol ether	N.E.	N.E.	N.E.	N.E.	N.A.
Cobalt	0.02 mg/m3	N.E.	0.1 mg/m3	N.E.	N.A.
2-Butoxyethanol	20 ppm	N.E.	240 mg/m3 50 ppm	N.E.	S
Metal compound	N.E.	N.E.	N.E.	N.E.	N.A.
Formaldehyde	0.3 ppmCeiling	N.E.	0.75 ppm	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.

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. Observe OSHA regulations (29CFR 1910.134) for respirator use. Note: If the exposure limit for formaldehyde is exceeded, a formaldehyde-specific, formaldehyde/organic vapor combination, or airline respirator may be required.

SKIN PROTECTION: Use neoprene, nitrile, or rubber gloves to prevent skin contact.

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:	Characteristic	**VAPOR PRESSURE:**	N.D.
APPEARANCE:	Blue	**VAPOR DENSITY:**	Heavier than Air
PHYSICAL STATE:	Paste	**LOWER EXPLOSIVE LIMIT:**	1.1 %(V)
FLASH POINT:	164 °F, 73 °C Pensky-Martens Closed Cup	**UPPER EXPLOSIVE LIMIT:**	10.6 %(V)
BOILING RANGE:	167 - 230 °C	**EVAPORATION RATE:**	Slower than n-butyl-acetate
AUTOIGNITION TEMPERATURE:	N.D.	**DENSITY:**	1.84 g/cm3 - 15.29 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:**	20.49 %
pH:	N.A.	**VOLATILE BY VOLUME:**	39.44 %
FREEZE POINT:	N.D.	**VOC CALCULATED:**	3.09 lb/gal, 371 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 polymerization 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.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, Formaldehyde, 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
Blue pigment	N.D.
Titanium dioxide	Oral LD50: Rat > 10,000 mg/kg GHS LC50 (vapour): rat 55 mg/l /
Glycol ether	Oral LD50: Rat 3,384 mg/kg Dermal LD50: Rabbit 2,700 mg/kg
Cobalt	Oral LD50: Rat 6,170 mg/kg Inhalation LC50: Rat > 10 mg/l /1 h
2-Butoxyethanol	Oral LD50: Rat 470 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 /
Metal compound	N.D.
Formaldehyde	Oral LD50: Rat 600 mg/kg Dermal LD50: Rabbit 270 mg/kg Inhalation LC50: Rat 0.578 mg/l /4 h

Germ cell mutagenicity: Category 1B - May cause genetic defects.
Components contributing to classification: Phenol. Formaldehyde.

Carcinogenicity: Category 1A - May cause cancer.
Components contributing to classification: Blue pigment. Titanium dioxide. Cobalt. Metal compound. Formaldehyde.

Reproductive toxicity: Category 1B - May damage fertility or the unborn child.
Components contributing to classification: Cobalt. 2-Butoxyethanol. Glycol Ether. Phenol.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

Chemical Name	Ecotoxicity
Blue pigment	N.D.
Titanium dioxide	N.D.
Glycol ether	Fish: Lepomis macrochirus 1,300 mg/l96 h Static Invertebrates: Daphnia magna > 100 mg/l48 h Plants: Desmodesmus subspicatus > 100 mg/l96 h
Cobalt	Fish: Brachydanio rerio > 100 mg/l96 h Static
2-Butoxyethanol	Fish: Lepomis macrochirus 1,490 mg/l96 h Static Lepomis macrochirus 2,950 mg/l96 h Invertebrates: Daphnia magna > 1,000 mg/l48 h
Metal compound	Fish: Pimephales promelas 2.16 - 3.05 mg/l96 h flow-through Pimephales promelas 0.211 - 0.269 mg/l96 h semi-static Pimephales promelas 2.66 mg/l96 h Static Cyprinus carpio 30 mg/l96 h Cyprinus carpio 0.45 mg/l96 h semi-static Cyprinus carpio 7.8 mg/l96 h Static Lepomis macrochirus 3.5 mg/l96 h Static Oncorhynchus mykiss 0.24 mg/l96 h flow-through Oncorhynchus mykiss 0.59 mg/l96 h semi-static Oncorhynchus mykiss 0.41 mg/l96 h Static Invertebrates: Daphnia magna 0.139 - 0.908 mg/l48 h Static Plants: Pseudokirchneriella subcapitata 0.11 - 0.271 mg/l96 h Static Pseudokirchneriella subcapitata 0.09 - 0.125 mg/l72 h Static
Formaldehyde	Fish: Pimephales promelas 22.6 - 25.7 mg/l96 h flow-through Lepomis macrochirus 1,510 µg/l96 h Static Brachydanio rerio 41 mg/l96 h Static Oncorhynchus mykiss 100 - 136 mg/l96 h Static Pimephales promelas 23.2 - 29.7 mg/l96 h Static Invertebrates: Daphnia magna 2 mg/l48 h Daphnia magna 11.3 - 18 mg/l48 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: Dispose of contents/container in accordance with waste/disposal laws and regulations of your country or particular locality. 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

The listed transportation classification applies to US DOT Road, IATA Cargo, and IMDG 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 % Less Than
Blue pigment	PROPRIETARY	25.0 %
Glycol ether	PROPRIETARY	15.0 %
Cobalt	7440-48-4	15.0 %
2-Butoxyethanol	111-76-2	5.0 %
Metal compound	PROPRIETARY	5.0 %
Formaldehyde	50-00-0	0.9 %

TOXIC SUBSTANCES CONTROL ACT:

INVENTORY STATUS
The chemical substances in this product are on the TSCA Section 8 Inventory.

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: 2 PHYSICAL HAZARD: 0
* - Indicates a chronic hazard; see Section 2

Revision: New GHS SDS Format

Effective Date: 04/30/2015

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.