USA SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **FUSOR 804HD HIGH DEFINITION SEALER**
Product Use/Class: **Sealant**

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: 10/31/2016

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

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

WARNING

Hazard Statements

Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention

Avoid release to the environment.

Response

Collect spillage.

Storage

Refer to Section 7 of this SDS.

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 mild eye and skin irritation. The silane monomer in this product may decompose to become methanol. For methanol, the OSHA PEL is 200 ppm, and the ACGIH STEL is 250 ppm (Skin). May be 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. 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. 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 effects. EPA, NTP and OSHA do not designate TiO2 as a carcinogen and ACGIH designates TiO2 as A4 - not classifiable as a human carcinogen. Mortaility from other chronic diseases, including other respiratory diseases, was not associated with exposure to TiO2 dust. TiO2 is not present in this product as a dust and no airborne exposure is expected during application.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Range
Diisononyl phthalate	68515-48-0	25 - 30 %
Silane monomer	PROPRIETARY	1 - 5 %
Dimethyl sulfoxide	67-68-5	1 - 5 %
Phthalic acid ester	53306-54-0	1 - 5 %
Amino silane	PROPRIETARY	1 - 5 %
Carbon black	1333-86-4	0.1 - 0.9 %
Titanium dioxide	13463-67-7	0.1 - 0.9 %
Lithium chloride	7447-41-8	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: Keep containers tightly closed. 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 (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: 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: Notify appropriate authorities if necessary. Contain and remove with inert absorbent material. Avoid contact. Keep non-essential personnel away from spill area. 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. 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.

STORAGE: Store only in well-ventilated areas. Keep from freezing. 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
Diisononyl phthalate	N.E.	N.E.	N.E.	N.E.	N.A.
Silane monomer	N.E.	N.E.	N.E.	N.E.	N.A.
Dimethyl sulfoxide	N.E.	N.E.	N.E.	N.E.	N.A.
Phthalic acid ester	N.E.	N.E.	N.E.	N.E.	N.A.
Amino silane	N.E.	N.E.	N.E.	N.E.	N.A.
Carbon black	3 mg/m3	N.E.	3.5 mg/m3	N.E.	N.A.
Titanium dioxide	10 mg/m3	N.E.	15 mg/m3	N.E.	N.A.
Lithium chloride	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.

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.

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: Mild **VAPOR PRESSURE:** N.D.

APPEARANCE:	Grey	**VAPOR DENSITY:**	Heavier than Air
PHYSICAL STATE:	Paste	**LOWER EXPLOSIVE LIMIT:**	Not Applicable
FLASH POINT:	≥ 201 °F, 93 °C Setaflash Closed Cup	**UPPER EXPLOSIVE LIMIT:**	Not Applicable
BOILING RANGE:	123 - 189 °C	**EVAPORATION RATE:**	Not Applicable
AUTOIGNITION TEMPERATURE:	N.D.	**DENSITY:**	1.25 g/cm3 - 10.40 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:**	4.90 %
pH:	N.A.	**VOLATILE BY VOLUME:**	6.35 %
FREEZE POINT:	N.D.	**VOC CALCULATED:**	0.33 lb/gal, 40 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.

INCOMPATIBILITY: Strong acids, bases, and strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, 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
Diisononyl phthalate	Oral LD50: Rat 2,550 mg/kg Dermal LD50: Rabbit > 3,160 mg/kg
Silane monomer	Oral LD50: Rat 7340 µL/kg Dermal LD50: Rabbit 3360 µL/kg LC50: rat 16.8 mg/l /4 h
Dimethyl sulfoxide	Oral LD50: Rat 14,500 mg/kg Dermal LD50: rabbit 40,000 mg/kg Dermal LD50: Rat 40 g/kg Inhalation LC50: rat > 5.3 mg/l /4 h
Phthalic acid ester	Oral LD50: rat > 5,000 mg/kg Dermal LD50: rabbit > 2,000 mg/kg Inhalation LC50: rat > 20.5 mg/l /1 h
Amino silane	N.D.
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
Titanium dioxide	Oral LD50: Rat > 10,000 mg/kg Dermal LD50: rabbit > 5,000 mg/kg GHS LC50 (vapour): Acute toxicity point estimate 55 mg/l
Lithium chloride	Oral LD50: Rat 526 mg/kg Dermal LD50: rabbit > 2,000 mg/kg Dermal LD50: Rat 1,488 mg/kg

Germ cell mutagenicity: No classification proposed

Carcinogenicity: No classification proposed

Reproductive toxicity: No classification proposed

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

Chemical Name	Ecotoxicity
Diisononyl phthalate	Fish: Ictalurus punctatus 0.42 mg/l96 h flow-through Oncorhynchus mykiss > 0.16 mg/l96 h flow-through Pimephales promelas > 0.19 mg/l96 h flow-through Invertebrates: Daphnia magna > 0.086 mg/l48 h Plants: Pseudokirchneriella subcapitata > 2.8 mg/l96 h
Silane monomer	Fish: Oncorhynchus mykiss (rainbow trout) 191 mg/l96 h Static Invertebrates: Daphnia magna (Water flea) 168.7 mg/l48 h Static
Dimethyl sulfoxide	Fish: Oncorhynchus mykiss 33 - 37 g/l96 h Static Lepomis macrochirus > 40 g/l96 h Static Cyprinus carpio 41.7 g/l96 h Pimephales promelas 34,000 mg/l96 h
Phthalic acid ester	Fish: Brachydanio rerio > 10,000 mg/l96 h Static Invertebrates: Daphnia magna > 100 mg/l48 h Static
Amino silane	N.D.
Carbon black	N.D.
Titanium dioxide	N.D.
Lithium chloride	N.D.

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

DOT Proper Shipping Name: Environmentally hazardous substances, liquid, n.o.s.
DOT Hazard Class: 9
SECONDARY HAZARD: None
DOT UN/NA Number: 3082
Packing Group: III
Emergency Response Guide Number: 171

For US DOT non-bulk road shipments this material may be classified as NOT REGULATED. For the most accurate shipping information, refer to your transportation/compliance department regarding changes in package size, mode of shipment or other regulatory descriptors.

IATA Cargo

PROPER SHIPPING NAME: Environmentally hazardous substance, liquid, n.o.s.
DOT Hazard Class: 9

HAZARD CLASS:	None
UN-NUMBER:	3082
PACKING GROUP:	III
EMS:	9L

IMDG

PROPER SHIPPING NAME:	Environmentally hazardous substance, liquid, n.o.s.
DOT Hazard Class:	9
HAZARD CLASS:	None
UN-NUMBER:	3082
PACKING GROUP:	III
EMS:	F-A

The listed transportation classification applies to 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 your country or particular locality. 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.:

NONE

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: 1* FLAMMABILITY: 1 PHYSICAL HAZARD: 0
* - Indicates a chronic hazard; see Section 2

Revision: Section 2

Effective Date: 10/31/2016

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.