



# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **FUSOR T19, TF19, T22, TF22, T23, TF23 TRUCK PLASTIC BONDING ADH PT A**

Product Use/Class: **URETHANE ADHESIVE, PART 1 OF 2**

Reference: Applies to Stock Number T19, TF19, T22, TF22, T23, TF23

LORD Corporation  
111 LORD Drive  
Cary, NC 27511-7923

Telephone: 814 868-0924

Non-Transportation Emergency: 814 763-2345

Chemtrec 24 Hr Transportation Emergency No.

800 424-9300 (Outside Continental U.S. 703 527-3887)

EFFECTIVE DATE: 06/04/2013

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

| <u>Chemical Name</u>              | <u>CAS Number</u> | <u>Weight %<br/>Less Than</u> | <u>ACGIH TLV-<br/>TWA</u> | <u>ACGIH TLV-<br/>STEL</u> | <u>OSHA PEL-<br/>TWA</u> | <u>OSHA PEL-<br/>CEILING</u> | <u>Skin</u> |
|-----------------------------------|-------------------|-------------------------------|---------------------------|----------------------------|--------------------------|------------------------------|-------------|
| 4,4'-Diphenylmethane diisocyanate | 101-68-8          | 20.0 %                        | 0.005 ppm                 | N.E.                       | N.E.                     | 0.2 mg/m3<br>0.02 ppm        | N.A.        |
| Aromatic polyisocyanate           | PROPRIETARY       | 15.0 %                        | N.E.                      | N.E.                       | N.E.                     | N.E.                         | N.A.        |
| Diphenylmethane diisocyanate      | 26447-40-5        | 10.0 %                        | N.E.                      | N.E.                       | N.E.                     | 0.2 mg/m3<br>0.02 ppm        | N.A.        |

N.A. - Not Applicable, N.E. - Not Established, S - Skin Designation

## 3. HAZARDS IDENTIFICATION

**\*\*\* EMERGENCY OVERVIEW \*\*\*:** Brown Liquid, with No odor. Harmful if inhaled. May cause allergic skin reaction. May cause allergic respiratory reaction. Causes skin and eye irritation. Causes respiratory tract irritation.

**EFFECTS OF OVEREXPOSURE - EYE CONTACT:** Causes eye irritation.

**EFFECTS OF OVEREXPOSURE - SKIN CONTACT:** May cause skin sensitization. May cause dermatitis. Causes skin irritation. Animal tests have indicated that respiratory sensitization can result from skin contact with certain isocyanates.

**EFFECTS OF OVEREXPOSURE - INHALATION:** 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. Allergic conditions can occur in certain individuals with high sensitivity to isocyanates; this may result in asthma-like symptoms. May cause respiratory sensitization. May cause lung damage.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Harmful if swallowed. Ingestion is not an expected route of entry in industrial or commercial uses.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** May cause long-term lung damage. Prolonged or repeated contact may result in dermatitis.

**PRIMARY ROUTE(S) OF ENTRY:** Skin Contact, Inhalation, Ingestion, Eye Contact

## 4. FIRST AID MEASURES

Product: FUSOR T19, TF19, T22, TF22, T23, TF23 TRUCK PLASTIC BONDING ADH PT A,  
Effective Date: 06/04/2013

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**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

**FLASH POINT:**  $\geq 201$  °F, 93 °C  
Setaflash Closed Cup

**LOWER EXPLOSIVE LIMIT (%):** Not Applicable  
**UPPER EXPLOSIVE LIMIT (%):** Not Applicable

**AUTOIGNITION TEMPERATURE:** N.D.

**EXTINGUISHING MEDIA:** Carbon Dioxide, Dry Chemical, Foam, Water Fog

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** During a fire, irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion. Keep containers tightly closed. Closed containers may rupture when exposed to extreme heat. Use water spray to keep fire exposed containers cool.

**SPECIAL FIREFIGHTING PROCEDURES:** Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA). If water is used, fog nozzles are preferable.

## 6. ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Keep non-essential personnel a safe distance away from the spill area. Avoid breathing vapors. Use self-contained breathing equipment. Notify appropriate authorities if necessary. Avoid contact. Before attempting cleanup, refer to hazard caution information in other sections of the MSDS form. Scoop spilled material into an appropriate 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. 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.

**STORAGE:** Store only in well-ventilated areas. Keep container closed when not in use.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits.

**RESPIRATORY PROTECTION:** This product contains isocyanates which have poor odor warning properties. If occupational exposure limits are exceeded, a NIOSH approved supplied-air respirator is required. Observe OSHA regulations (29CFR 1910.134) for respirator use.

**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. Use long-sleeved shirt to minimize skin exposure.

**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

|                                 |           |                            |                                 |
|---------------------------------|-----------|----------------------------|---------------------------------|
| <b>ODOR:</b>                    | No        | <b>BOILING RANGE:</b>      | N.A.                            |
| <b>APPEARANCE:</b>              | Brown     | <b>VAPOR PRESSURE:</b>     | N.D.                            |
| <b>PHYSICAL STATE:</b>          | Liquid    | <b>VAPOR DENSITY:</b>      | Heavier than Air                |
| <b>ODOR THRESHOLD:</b>          | N.D.      | <b>EVAPORATION RATE:</b>   | Slower than n-butyl-<br>acetate |
| <b>SOLUBILITY IN H2O:</b>       | Insoluble | <b>DENSITY, LB/GL:</b>     | 13.1067 lb/gal                  |
| <b>pH:</b>                      | N.A.      | <b>VOLATILE BY WEIGHT:</b> | 0.46 %                          |
| <b>FREEZE POINT:</b>            | N.D.      | <b>VOLATILE BY VOLUME:</b> | 0.82 %                          |
| <b>COEFFICIENT OF WATER/OIL</b> | N.D.      |                            |                                 |
| <b>DISTRIBUTION:</b>            |           |                            |                                 |

(See section 16 for abbreviation legend)

## 10. STABILITY AND REACTIVITY

**CONDITIONS TO AVOID:** High temperatures.

**INCOMPATIBILITY:** Amines, acids, water, hydroxyl, or active hydrogen compounds. Strong bases and oxidizers.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Monomeric isocyanate, traces of hydrogen cyanide, nitrogen dioxide, Carbon monoxide, carbon dioxide

**HAZARDOUS POLYMERIZATION:** Hazardous polymerization will not occur under normal conditions.

**STABILITY:** Product is stable under normal storage conditions.

## 11. TOXICOLOGICAL INFORMATION

|                     |                 |         |
|---------------------|-----------------|---------|
| <b>PRODUCT LD50</b> | <b>(ORAL)</b>   | No Data |
|                     | <b>(DERMAL)</b> | No Data |
| <b>PRODUCT LC50</b> |                 | No Data |

## 12. ECOLOGICAL INFORMATION

**ECOLOGICAL INFORMATION:** No Information

## 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

Product: FUSOR T19, TF19, T22, TF22, T23, TF23 TRUCK PLASTIC BONDING ADH PT A,  
Effective Date: 06/04/2013

This product is NOT REGULATED for non-bulk road shipments. For the most accurate shipping information, refer to your transportation/compliance department regarding changes in package size, mode of shipment or other regulatory descriptors.

## 15. REGULATORY INFORMATION

### U.S. FEDERAL REGULATIONS: AS FOLLOWS -

This product is considered hazardous as defined by 29 CFR 1910.1200 (OSHA HazCom Standard.)

### 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 % Less Than</u> |
|-----------------------------------|-------------------|---------------------------|
| 4,4'-Diphenylmethane diisocyanate | 101-68-8          | 20.0 %                    |
| Aromatic polyisocyanate           | PROPRIETARY       | 15.0 %                    |
| Diphenylmethane diisocyanate      | 26447-40-5        | 10.0 %                    |

### 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

HMIS RATINGS - HEALTH: 2\* FLAMMABILITY: 1 PHYSICAL HAZARD: 0

\* - Indicates a chronic hazard; see Section 3

### VOLATILE ORGANIC COMPOUNDS

Calculated: 0.06 lb/gal, 7 g/l

Revision: Section 2

LEGEND: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

## 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.



# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **FUSOR T22, TF22 HDT PLAS ADH (FAST),PT.B**  
Product Use/Class: **URETHANE ADHESIVE, PART 2 OF 2**  
Reference: Applies to Stock Number T22, TF22

**LORD CORPORATION**  
**111 LORD DRIVE**  
**CARY, NC 27511-7923**

**TRANSPORTATION EMERGENCY:**  
**CHEMTREC 24 HR EMERGENCY NO.**  
**800 424-9300**  
**(Outside Continental U.S. 703 527-3887)**

**INFORMATION TELEPHONE:**  
**814 868-0924**

**NON-TRANSPORTATION EMERGENCY:**  
**814 763-2345**

EFFECTIVE DATE: 04/25/2011

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

| <u>Chemical Name</u> | <u>CAS Number</u> | <u>Weight %<br/>Less Than</u> | <u>ACGIH TLV-<br/>TWA</u> | <u>ACGIH TLV-<br/>STEL</u> | <u>OSHA PEL-<br/>TWA</u> | <u>OSHA PEL-<br/>CEILING</u> | <u>Skin</u> |
|----------------------|-------------------|-------------------------------|---------------------------|----------------------------|--------------------------|------------------------------|-------------|
| Titanium dioxide     | 13463-67-7        | 10.0 %                        | 10 mg/m3                  | N.E.                       | 15 mg/m3                 | N.E.                         | N.A.        |

N.A. - Not Applicable, N.E. - Not Established, S - Skin Designation

## 3. HAZARDS IDENTIFICATION

**\*\*\* EMERGENCY OVERVIEW \*\*\*:** White Liquid, with No odor. Low hazard for usual industrial or commercial handling.

**EFFECTS OF OVEREXPOSURE - EYE CONTACT:** Eye contact may cause slight irritation.

**EFFECTS OF OVEREXPOSURE - SKIN CONTACT:** May cause mild skin irritation.

**EFFECTS OF OVEREXPOSURE - INHALATION:** No inhalation hazard expected during normal workplace use.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Harmful if swallowed. Ingestion is not an expected route of entry in industrial or commercial uses.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** IARC has designated titanium dioxide (TiO<sub>2</sub>) as Group 2B – possibly carcinogenic to humans in dust form. However, a number of long term animal studies and human epidemiology studies evaluating TiO<sub>2</sub> and workplace exposure show insufficient evidence for carcinogenic affects. EPA, NTP and OSHA do not designate TiO<sub>2</sub> as a carcinogen and ACGIH designates TiO<sub>2</sub> as A4 - not classifiable as a human carcinogen. TiO<sub>2</sub> is not present in this product as a dust and no airborne exposure is expected during application.

**PRIMARY ROUTE(S) OF ENTRY:** Skin Contact, Inhalation, Ingestion, Eye Contact

## 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:** This material is not likely to be hazardous by inhalation. However, if exposed to excessive levels of vapor or mist, remove to fresh air, give oxygen if breathing is difficult, and get immediate medical attention.

**FIRST AID - INGESTION:** If swallowed, do not induce vomiting. Give victim one or two glasses of water or milk. 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

**FLASH POINT:** 201 °F, 93 °C  
Setaflash Closed Cup

**LOWER EXPLOSIVE LIMIT (%):** Not Applicable  
**UPPER EXPLOSIVE LIMIT (%):** Not Applicable

**AUTOIGNITION TEMPERATURE:** N.D.

**EXTINGUISHING MEDIA:** Carbon Dioxide, Dry Chemical, Foam, Water Fog

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** 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 FIREFIGHTING PROCEDURES:** Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA). If water is used, fog nozzles are preferable.

## 6. ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Avoid breathing vapors. 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 MSDS form.

## 7. HANDLING AND STORAGE

**HANDLING:** Keep closure tight and container upright to prevent leakage. Avoid skin and eye contact. Wash thoroughly after handling. Do not handle until all safety precautions have been read and understood. Empty containers should not be re-used. Use with adequate ventilation.

**STORAGE:** Store only in well-ventilated areas. Keep container closed when not in use.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Provide adequate general ventilation where this product is used.

**RESPIRATORY PROTECTION:** Respiratory protection is not required under normal working conditions where adequate ventilation is present.

**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:** 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

|   |           |                            |                |
|---|-----------|----------------------------|----------------|
| <b>ODOR:</b>                                  | No        | <b>BOILING RANGE:</b>      | N.A.           |
| <b>APPEARANCE:</b>                            | White     | <b>VAPOR PRESSURE:</b>     | N.D.           |
| <b>PHYSICAL STATE:</b>                        | Liquid    | <b>VAPOR DENSITY:</b>      | Not Applicable |
| <b>ODOR THRESHOLD:</b>                        | N.D.      | <b>EVAPORATION RATE:</b>   | Not Applicable |
| <b>SOLUBILITY IN H2O:</b>                     | Insoluble | <b>DENSITY, LB/GL:</b>     | 11.23 lb/gal   |
| <b>pH:</b>                                    | N.A.      | <b>VOLATILE BY WEIGHT:</b> | 0.00 %         |
| <b>FREEZE POINT:</b>                          | N.D.      | <b>VOLATILE BY VOLUME:</b> | 0.00 %         |
| <b>COEFFICIENT OF WATER/OIL DISTRIBUTION:</b> | N.D.      |                            |                |

(See section 16 for abbreviation legend)

**10. STABILITY AND REACTIVITY**

**CONDITIONS TO AVOID:** High temperatures.

**INCOMPATIBILITY:** Acids, caustics, amines, ammonia, halogens, and isocyanates.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide.

**HAZARDOUS POLYMERIZATION:** Hazardous polymerization will not occur under normal conditions.

**STABILITY:** Product is stable under normal storage conditions.

**11. TOXICOLOGICAL INFORMATION**

|                     |                 |         |
|---------------------|-----------------|---------|
| <b>PRODUCT LD50</b> | <b>(ORAL)</b>   | No Data |
|                     | <b>(DERMAL)</b> | No Data |
| <b>PRODUCT LC50</b> |                 | No Data |

**12. ECOLOGICAL INFORMATION**

**ECOLOGICAL INFORMATION:** No Information

**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**

This product is NOT REGULATED for non-bulk road shipments. For the most accurate shipping information, refer to your transportation/compliance department regarding changes in package size, mode of shipment or other regulatory descriptors.

**15. REGULATORY INFORMATION**

**U.S. FEDERAL REGULATIONS: AS FOLLOWS -**

This product is considered hazardous as defined by 29 CFR 1910.1200 (OSHA HazCom Standard.)

**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

|                              |
|------------------------------|
| <b>16. OTHER INFORMATION</b> |
|------------------------------|

**HMS RATINGS - HEALTH:** 1    **FLAMMABILITY:** 1    **PHYSICAL HAZARD:** 0

\* - Indicates a chronic hazard; see Section 3

**VOLATILE ORGANIC COMPOUNDS**

Calculated: 0 lb/gal, 0 g/l

**LEGEND:** N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

|                   |
|-------------------|
| <b>DISCLAIMER</b> |
|-------------------|

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.