

LORD MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: LORD 305-1

Product Use/Class: EPOXY ADHESIVE, PART 1 OF 2

LORD CORPORATION
CHEMICAL PRODUCTS DIVISION
2000 WEST GRANDVIEW BLVD
ERIE, PA 16514

INFORMATION TELEPHONE: 814 868-3611

TRANSPORTATION EMERGENCY
CALL CHEMTREC: 800 424-9300

NON-TRANSPORTATION EMERGENCY: 814
763-2345

EFFECTIVE DATE: 12/29/1999

SUPERCEDES DATE: 09/24/1996

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Weight % Less Than</u>	<u>ACGIH TLV-TWA</u>	<u>ACGIH TLV-STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL-CEILING</u>	<u>Units</u>	<u>Skin</u>
Epoxy resin	Proprietary	100 %	N.E.	N.E.	N.E.	N.E.		

N.E. - Not Established, S - Skin Designation, C - Ceiling

SECTION 3 - HAZARDS IDENTIFICATION

*** EMERGENCY OVERVIEW ***: Clear/amber Liquid, with Mild odor. May cause skin and eye irritation. May cause allergic skin reaction. May cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - EYE CONTACT: May cause eye irritation.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: May cause skin irritation. May cause skin sensitization. May cause dermatitis.

EFFECTS OF OVEREXPOSURE - INHALATION: May cause respiratory tract irritation.

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: Chronic skin contact may cause dermatitis.

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

SECTION 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. 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 to an unconscious person.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: > 200F, 94C

LOWER EXPLOSIVE LIMIT (%): Not Applicable

(Setaflash Closed Cup)

UPPER EXPLOSIVE LIMIT (%): Not Applicable

AUTOIGNITION TEMPERATURE: N.D.

OSHA FLAMMABILITY CLASSIFICATION: COMBUSTIBLE LIQUID - CLASS III B

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.

SPECIAL FIREFIGHTING PROCEDURES: Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA). If water is used, fog nozzles are preferable. During a fire, irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Avoid breathing vapors. Notify appropriate authorities if necessary. Avoid contact. Use appropriate respiratory protection for large spills or spills in confined area. Keep non-essential personnel away from spill area. Scoop spilled material into an appropriate container for proper disposal. (If necessary, use inert absorbent material to aid in containing the spill).

SECTION 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.

SECTION 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: Use a NIOSH/MSHA approved air-purifying organic vapor respirator 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.

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. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE:	N.A - N.A F	VAPOR DENSITY:	Heavier than
APPEARANCE:	Clear/amber	EVAPORATION RATE:	Slower than E
PHYSICAL STATE:	Liquid	DENSITY, LB/GL:	9.75
ODOR:	Mild	SPECIFIC GRAVITY:	1.17
SOLUBILITY IN H2O:	Insoluble	pH:	N.A.
FREEZE POINT:	N.D.	ODOR THRESHOLD:	N.D.
VOLATILE BY WEIGHT:	0.0%	VOLATILE BY VOLUME:	0.0%
VAPOR PRESSURE:	N.D.		
COEFFICIENT OF WATER/OIL DISTRIBUTION:	N.D.		

(See section 16 for abbreviation legend)

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: High temperatures.

INCOMPATIBILITY: Amines, acids, water, hydroxyl, or active hydrogen compounds.

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

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

STABILITY: Product is stable under normal storage conditions.

SECTION 11 - TOXICOLOGICAL INFORMATION

PRODUCT
LD50 (ORAL) : No Data

(DERMAL) : No Data

PRODUCT
LC50 : No Data

SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: No Information.

SECTION 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.

SECTION 14 - TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: NOT REGULATED

DOT HAZARD CLASS: NONE

DOT UN/NA NUMBER: NONE

PACKING GROUP: NONE

EMERGENCY RESPONSE GUIDE NONE
NUMBER:

SECTION 15 - REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS -

OSHA: HAZARDOUS BY DEFINITION OF HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

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:

CHEMICAL NAME

CAS NUMBER

Epoxy resin

Proprietary

INTERNATIONAL REGULATIONS: AS FOLLOWS -

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

CANADIAN WHMIS CLASS: D2A, D2B

SECTION 16 - OTHER INFORMATION

HMS RATINGS - HEALTH: 2 FLAMMABILITY: 1 REACTIVITY: 0

* - Indicates a chronic hazard; see Section 3

REASON FOR REVISION: Computer System Upgrade

VOLATILE ORGANIC COMPOUNDS (Calculated) : 0.00 lbs/gal, 0 grams/ltr

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

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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.

LORD MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: LORD 305-2

Product Use/Class: EPOXY ADHESIVE, PART 2 OF 2

LORD CORPORATION
 CHEMICAL PRODUCTS DIVISION
 2000 WEST GRANDVIEW BLVD
 ERIE, PA 16514

INFORMATION TELEPHONE: 814 868-3611

TRANSPORTATION EMERGENCY
 CALL CHEMTREC: 800 424-9300

NON-TRANSPORTATION EMERGENCY: 814
 763-2345

EFFECTIVE DATE: 12/14/1999

SUPERCEDES DATE: 09/24/1996

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Weight % Less Than</u>	<u>ACGIH TLV-TWA</u>	<u>ACGIH TLV-STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL-CEILING</u>	<u>Units</u>	<u>Skin</u>
Polyamide resin	Proprietary	100 %	N.E.	N.E.	N.E.	N.E.		
Amine compound	Proprietary	4.0 %	N.E.	N.E.	N.E.	N.E.		

N.E. - Not Established, S - Skin Designation, C - Ceiling

SECTION 3 - HAZARDS IDENTIFICATION

*** EMERGENCY OVERVIEW ***: Blue Liquid, with Mild odor. May cause skin and eye irritation. May cause allergic skin reaction. May cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - EYE CONTACT: May cause eye irritation.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: May cause skin irritation. May cause skin sensitization. May cause dermatitis.

EFFECTS OF OVEREXPOSURE - INHALATION: May cause respiratory tract irritation.

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: Chronic skin contact may cause dermatitis.

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

SECTION 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. 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 to an unconscious person.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: > 200F, 94C

LOWER EXPLOSIVE LIMIT (%): 1.10

(Setaflash Closed Cup)

UPPER EXPLOSIVE LIMIT (%): 6.40

AUTOIGNITION TEMPERATURE: N.D.

OSHA FLAMMABILITY CLASSIFICATION: COMBUSTIBLE LIQUID - CLASS III B

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.

SPECIAL FIREFIGHTING PROCEDURES: Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA). If water is used, fog nozzles are preferable. During a fire, irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion.

SECTION 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).

SECTION 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.

SECTION 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: Use a NIOSH/MSHA approved air-purifying organic vapor respirator 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.

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. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE:	527 - 527 F	VAPOR DENSITY:	Heavier than
APPEARANCE:	Blue	EVAPORATION RATE:	Slower than E
PHYSICAL STATE:	Liquid	DENSITY, LB/GL:	7.99
ODOR:	Mild	SPECIFIC GRAVITY:	0.96
SOLUBILITY IN H ₂ O:	Insoluble	pH:	N.A.
FREEZE POINT:	N.D.	ODOR THRESHOLD:	N.D.
VOLATILE BY WEIGHT:	0.9%	VOLATILE BY VOLUME:	1.0%

VAPOR PRESSURE: N.D.

COEFFICIENT OF WATER/OIL
DISTRIBUTION: N.D.

(See section 16 for abbreviation legend)

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: High temperatures.

INCOMPATIBILITY: Strong acids, bases, and strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, organic or inorganic nitrogen compounds including traces of hydrogen cyanide.

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

STABILITY: Product is stable under normal storage conditions.

SECTION 11 - TOXICOLOGICAL INFORMATION

PRODUCT
LD50 (ORAL) : No Data

(DERMAL) : No Data

PRODUCT
LC50 : No Data

SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: No Information.

SECTION 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.

SECTION 14 - TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: NOT REGULATED

DOT HAZARD CLASS: NONE
DOT UN/NA NUMBER: NONE
PACKING GROUP: NONE
EMERGENCY RESPONSE GUIDE NUMBER: NONE

SECTION 15 - REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS -

OSHA: HAZARDOUS BY DEFINITION OF HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

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

INTERNATIONAL REGULATIONS: AS FOLLOWS -

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

CANADIAN WHMIS CLASS: D2A, D2B

SECTION 16 - OTHER INFORMATION

HMIS RATINGS - HEALTH: 2 FLAMMABILITY: 1 REACTIVITY: 0

* - Indicates a chronic hazard; see Section 3

REASON FOR REVISION: Computer System Upgrade

VOLATILE ORGANIC COMPOUNDS (Calculated) : 0.07 lbs/gal, 9 grams/ltr

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

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DISCLAIMER

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