

MATERIAL SAFETY DATA SHEET

DP 2595 DUCT LINER SPRAY ADHESIVE

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SECTION I - MANUFACTURER IDENTIFICATION

PRODUCT NAME: DUCT LINER SPRAY ADHESIVE
PRODUCT CODE: DP 2595

HMIS CODES: H F R P
2 3 0 B

MANUFACTURERS' NAME: DESIGN POLYMERICS
ADDRESS: 11609 MARTENS RIVER CIRCLE
FOUNTAIN VALLEY, CA 92708

EMERGENCY PHONE: Chem-Tel: (800) 255-3924 (24 Hrs)
INFORMATION PHONE: (714) 432-0600

BUSINESS HOURS: 7:30am - 4:30pm PT
REVISION DATE: May 3, 2007
REVISION #: 3
Supersedes all previous

PREPARED BY: Technical Dept.

DOT Hazard Class 2.1
Shipping Name LIQUIFIED GAS, FLAMMABLE, NOS

UN Number UN3161
Packing Group N/A

SECTION II - HAZARDOUS INGREDIENTS / SARA III INFORMATION

| REPORTABLE COMPONENTS | CAS NUMBER | VAPOR PRESSURE mm Hg @ TEMP | WEIGHT PERCENT |
|---|------------|--------------------------------|-------------------|
| * Methylene Chloride OSHA TLV/TWA: 50 ppm, PEL: 25 ppm 8 hr TWA, STEL: 125 ppm any 15 minute period; ACGIH/TLV: 50 ppm | 75-09-2 | 350 68°F | 40-45% |
| Dimethyl Ether OSHA PEL: Not Established (1000 ppm recommended) | 115-10-6 | 48 68°F | Proprietary |
| Propane OSHA TWA: 1000 ppm; ACGIH/STEL: Simple Asphyxiant | 78-98-6 | 760 68°F | Proprietary |
| Isobutane OSHA PEL: Not Established; ACGIH/TLV: Simple Asphyxiant | 75-20-5 | 310 70°F | Proprietary |

* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372.

SECTION III - HEALTH HAZARD DATA

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Exposure to high concentrations of vapor or mist can cause central nervous system depression with symptoms of headache, dizziness, stupor, loss of consciousness or death depending on concentration and duration of exposure. Exposure to high concentrations can cause irregular heartbeat, cardiac arrest and death. Overexposure has been shown to cause adverse effects on the lungs, liver, kidney, nervous system and other internal organs.

Propane is considered to be a simple asphyxiant by A.C.G.I.H.. Inhalation of excessive amounts may indirectly cause a health hazard by limiting oxygen availability. VAPORS MAY DISPLACE OXYGEN AND CAUSE DIZZINESS, UNCONSCIOUSNESS, AND DEATH.

Reduces the blood's oxygen-carrying capacity by elevating Carboxyhemoglobin levels and can cause a substantial stress on the cardiovascular system. This elevation can be additive to the increase caused by smoking and other carbon monoxide sources. Reduced blood oxygen levels may be harmful to users, especially those with existing heart disease.

SKIN CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Prolonged or repeated contact of liquid can cause irritation, defatting of skin, and dermatitis. Prolonged single exposure can result in progressively severe burning sensation and redness. May be absorbed through the skin and cause adverse health effects as described in the INHALATION section. Skin contact with material exiting cylinder may cause frostbite. Eye and respiratory system contact will cause irritation and possible thermal tissue damage (frostbite).

EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Vapor can irritate eyes. Liquid in direct contact with eyes may cause severe eye irritation and corneal damage.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Can cause gastrointestinal irritation, nausea, and vomiting. Aspiration of material into lungs may cause chemical pneumonitis which can be fatal.

HEALTH HAZARDS (ACUTE AND CHRONIC): ACUTE OVEREXPOSURE: Liquid is irritating to skin, eyes, and respiratory system. Prolonged exposure to skin can cause a burning sensation. Breathing vapors may cause lightheadedness, dizziness, irregular heartbeats, headache, nausea, and in extreme cases, unconsciousness or death. CHRONIC OVEREXPOSURE: Prolonged or repeated exposure above TLV may result in depression, fatigue, loss of appetite, vomiting, cough, loss of sense of balance, dermatitis, and may affect kidneys, lungs, or liver.

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CARCINOGENICITY: NTP CARCINOGEN: Yes IARC MONOGRAPHS: Yes OSHA REGULATED: No
Methylene Chloride has been identified as a potential carcinogen by the International Agency For Research on Cancer (IARC Group 2B – Probable Human Carcinogen) and as a substance “Reasonably Anticipated To Be A Carcinogen” by the National Toxicological Program (NTP Group 2). Methylene Chloride appears on the NTP carcinogen list. Prolonged overexposure has caused toxic effects on the liver and kidneys, and has caused cancer in certain laboratory animal tests.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Alcoholism, acute and chronic liver and kidney disease, chronic lung disease, anemia, coronary disease or rhythm disorders of the heart, pre-existing eye, skin, or respiratory disorders may be aggravated by exposure to this product. Exposure can result in cardiac sensitization and increase the risk of cardiac arrest. An occasional patient may exhibit an allergic reaction with erythema, hives, respiratory difficulties or other symptoms.

INTERACTIONS WITH OTHER CHEMICALS WHICH ENHANCE TOXICITY: Consumption of alcoholic beverages may increase potential for development of toxic effects resulting from exposure to this product.

===== **SECTION IV – FIRST AID PROCEDURES** =====

INHALATION: Remove to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, administer artificial respiration. Contact physician or emergency medical facility immediately.

SKIN: Remove contaminated clothing and shoes. Wash exposed area thoroughly with soap and water for at least 15 minutes. Do not rub affected area. If irritation persists, get medical attention. Skin reaction may take 24 to 48 hours to develop. Wash contaminated clothing before reuse.

EYES: Immediately flush eyes with large amounts of water for at least 15 minutes while frequently lifting the upper and lower eyelids. If irritation persists, call a physician.

INGESTION: Do not induce vomiting. Contact physician or emergency medical facility immediately. Never give anything by mouth to an unconscious person.

NOTES TO PHYSICIAN: Chlorinated hydrocarbons may sensitize the heart to epinephrine and other circulating catecholamines so that arrhythmias may occur. Careful consideration of this potential adverse effect should precede administration of epinephrine or other cardiac stimulants and the selection of bronchodilators.

===== **SECTION V - FIRE AND EXPLOSION HAZARD DATA** =====

| | |
|--|-------------------------------|
| NFPA FLAMMABILITY CLASSIFICATION | FLAMMABLE LIQUID – CLASS IA |
| FLASH POINT: N/E METHOD USED: N/E | AUTOIGNITION TEMPERATURE: N/E |
| FLAMMABLE LIMITS IN AIR BY VOLUME – LOWER: N/E | UPPER: N/E |

EXTINGUISHING MEDIA: Use NFPA Class B fire extinguishers such as carbon dioxide, dry chemical or alcohol foam designed to extinguish flammable liquid fires. Polymer foam is preferred for large fires.

SPECIAL FIRE FIGHTING PROCEDURES: When dried film burns, Carbon Dioxide, Carbon Monoxide, various hydrocarbons, smoke, and chlorine containing gases are produced. Firefighters should wear self-contained breathing apparatus, especially in enclosed areas. Water may be ineffective, but may be used to cool exposed containers to prevent pressure build-up and possible auto-ignition or explosion when exposed to extreme heat. If water is used, fog nozzles are preferable.

UNUSUAL FIRE AND EXPLOSION HAZARDS: **DANGER! EXTREMELY FLAMMABLE! VAPORS MAY CAUSE FLASH FIRE. VAPOR OR CONTAINER MAY EXPLODE IF EXPOSED TO FLAME, HEAT, OR OTHER IGNITION SOURCE.** Containers are pressurized with flammable, liquefied gas. Vapors are heavier than air and may travel along floor to ignition source. At elevated temperatures (over 120°F), containers may burst and release flammable vapors. This product contains halogenated hydrocarbons. Contact with aluminum may cause violent reaction and/or explosion. Properly designed and installed “explosion proof” electrical equipment is required. Do not apply to very hot surfaces.

===== **SECTION VI – ACCIDENTAL RELEASE MEASURES** =====

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: The use of NIOSH/MSHA approved, TC19C, air-supplied breathing apparatus may be required. Consult with a qualified occupational health and/or safety professional. Wear respirator, eye, hand, and body protection appropriate for the size of the spill and the exposures encountered. Keep spectators away. Eliminate all ignition sources such as flames, hot surfaces, and sources of sparks. Dike, contain, or absorb with inert absorbent material. Transfer liquids to covered metal containers for recovery or disposal, or remove with inert absorbent. Use only non-sparking tools. Prevent spill from entering sewers, drains, streams, waterways, or other bodies of water.

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WASTE DISPOSAL METHOD: Dispose of in accordance with all local, state and federal regulations. Observe precautions for disposal of flammable materials.

RCRA CLASSIFICATION: This product, if discarded directly, would be classified as a hazardous waste based on its ignitability characteristic. The proper RCRA classification would be D001.

===== **SECTION VII - PRECAUTIONS FOR SAFE HANDLING, STORAGE, AND USE** =====

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Do not incinerate, puncture, or mishandle container valves or hoses. All attachments must be in good condition and properly designed for use with this container. Do not store containers above 115°F. Store large quantities in compliance with OSHA 29CFR1910.106. Exposure to direct sunlight or other sources of heat may cause containers to rupture or explode.

OTHER PRECAUTIONS: THIS PRODUCT IS INTENDED TO BE USED ONLY BY THE PROFESSIONAL (INDUSTRIAL) APPLICATOR UNDER PROPERLY CONTROLLED CONDITIONS. THE USE OF THIS PRODUCT IN CONFINED AREAS MAY RESULT IN DANGEROUS AIRBORNE CONCENTRATIONS. THIS MAY CAUSE THE SERIOUS HEALTH EFFECTS DESCRIBED IN SECTION III OF THE MSDS.

Store in a cool dry, well ventilated area. Do not puncture or incinerate. Do not spray near flame or hot surfaces. DO NOT TAKE INTERNALLY. Avoid unnecessary, prolonged, or repeated contact with this and any other chemical. KEEP OUT OF REACH OF CHILDREN.

WASTE DISPOSAL METHOD: Once hose has been removed and placed on a new tank, open valve completely and allow all vapors to escape. Leave valve open. Punch out emergency relief valve on top of cylinder dome with a hammer and punch. Containers are non-returnable and must be disposed of in accordance with local, state, and federal regulations. Observe precautions for disposal of flammable materials.

===== **SECTION VIII – EXPOSURE CONTROLS** =====

RESPIRATORY PROTECTION: In general, exposure to organic chemicals such as those contained in this product may not require the use of respiratory protection if used in well-ventilated areas. Provide sufficient ventilation to maintain constant fresh air in workspace. In restricted ventilation areas, a NIOSH approved chemical cartridge respirator may be required. Under certain conditions, such as spraying, a mechanical pre-filter may also be required. In confined areas, use a NIOSH/MSHA approved air-supplied respirator. If the TLV's listed in Section II are exceeded, use a properly fitted NIOSH/MSHA approved respirator with an appropriate protection factor.

VENTILATION: Use adequate mechanical (general and/or local) ventilation to maintain exposure below TLV.

SKIN PROTECTION (PROTECTIVE GLOVES): Wear appropriate impermeable gloves.

EYE PROTECTION: Wear safety glasses meeting ANSI Z87.1 where eye contact is not anticipated. Use chemical splash goggles meeting ANSI Z87.1 where splashing or other eye contact is possible.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear impervious clothing. Eye wash station, safety shower.

WORK / HYGENIC PRACTICES: Source of clean water should be available for flushing eyes and washing skin. Wash thoroughly after handling any chemicals, especially before eating, drinking, or smoking. Remove and launder contaminated clothing before reuse.

===== **SECTION IX - PHYSICAL / CHEMICAL CHARACTERISTICS** =====

| | |
|---------------------------------|--|
| PHYSICAL FORM: Viscous liquid | COLOR: Clear to Light Tan or Red |
| ODOR: Organic Solvent Odor | pH: Not Applicable |
| SOLUBILITY IN WATER: None | SPECIFIC GRAVITY (H ₂ O=1): 0.83-0.90 |
| BOILING POINT: Not Established | % VOC BY WEIGHT: <35% |
| FREEZING POINT: Not Established | EVAPORATION RATE: Slower than diethyl ether |
| VAPOR PRESSURE: 70 psig at 70°F | VAPOR DENSITY: Heavier than air |
| COATING V.O.C.: 402 g/l | VISCOSITY (cps): Not Available |

===== **SECTION X – STABILITY AND REACTIVITY DATA** =====

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Open flames, sources of ignition, high heat, welding arcs or other high temperature sources which induce thermal decomposition.

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INCOMPATIBILITY (MATERIALS TO AVOID): Aluminum, strong acids or alkaline materials, strong oxidizing agents. This product contains halogenated hydrocarbons which may react with aluminum. Avoid contact with aluminum in situations in which pressures may be elevated or in which reactions may be enclosed. Do not use spray equipment systems containing aluminum parts.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: May form toxic materials on thermal decomposition including carbon monoxide, carbon dioxide, various hydrocarbons, and smoke. In addition, phosgene, formaldehyde, hydrogen chloride, and chlorine may be generated.

===== **SECTION XI – REGULATORY INFORMATION** =====

Toxic Substances Control Act (TSCA): All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

Canadian Domestic Substance List (CDSL): All ingredients in this product are listed on the Canadian Domestic Substance List.

EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW (SARA TITLE III):

Section 313 Information (40 CFR 372) – Toxic Chemicals List: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372:

| Component | CAS# | % by Weight |
|--------------------|---------|-------------|
| Methylene Chloride | 75-09-2 | 40-45% |

CALIFORNIA PROPOSITION 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): **WARNING:** This product contains Methylene chloride, a chemical known to the State of California to cause cancer.

===== **SECTION XII – DISCLAIMER** =====

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to Design Polymerics from its suppliers, and because Design Polymerics has no control over the conditions of handling and use, Design Polymerics makes no warranty, express or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and Design Polymerics assumes no responsibility from use or reliance thereon. It is the responsibility of the user of Design Polymerics products to comply with all applicable Federal, State and Local Laws and Regulations.