

MATERIAL SAFETY DATA SHEET
SPRAY CONTACT ADHESIVE - 2800 (MAROON), 2800 (CLEAR)

LEVEL ONE CONTACT ADHESIVE INC.

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Section 1. PRODUCT IDENTIFICATION

PRODUCT NAME: SPRAY CONTACT ADHESIVE 2800 (MAROON), 2800 (CLEAR) IN
TRANSPORTABLE PRESSURE CYLINDERS

CHEMICAL DESCRIPTION: Proprietary Contact Adhesive

CAS NUMBER: Mixture

PREPARATION DATE: 27/05/2003

Section 2. HAZARDOUS COMPONENTS

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% by Weight</u>	<u>SYMBOL-LETTER</u>	<u>RISK PHRASES</u>
Methylene Chloride (Dichloromethane)	75-09-2	< 55 %	Xn	R40 limited evidence of carcinogenic effect
Propane	74-98-6	< 24 %	F+	R12 Extremely Flammable
Isobutane	75-28-5	< 12 %	F+	R12 Extremely Flammable

Section 3. HAZARDS IDENTIFICATION

***** EMERGENCY OVERVIEW *****

DANGER! EXTREMELY FLAMMABLE VAPOURS. CONTENTS UNDER PRESSURE. HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. AFFECTS CENTRAL NERVOUS SYSTEM AND BLOOD. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. SUSPECTED CANCER HAZARD.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Persons with pre-existing skin disorders, eye problems, impaired liver, kidney, respiratory or cardiovascular functions may be more susceptible to the effects of this product. Alcoholic beverage consumption can enhance the toxic effects of this material.

TARGET ORGANS: Central nervous system, kidney, liver.

Section 4. FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes, lifting the lower and upper eyelids. Do not allow victim to rub or keep eyes closed. Get medical attention immediately.

SKIN CONTACT: Immediately flush skin with plenty of soap and lukewarm water for at least 15 minutes while removing contaminated clothing and shoes. Treat for frostbite if necessary by gently warming affected area. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

INGESTION: If swallowed, DO NOT INDUCE VOMITING. Give 2 to 4 cupfuls of milk or water. If spontaneous vomiting is inevitable, prevent aspiration by keeping the victim's head below the knees. Never give anything by mouth to an unconscious person. Get medical attention immediately. A qualified physician can perform gastric lavage only when the airway (trachea) has been secured to prevent aspiration.

INHALATION: Get medical aid immediately. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Section 5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Dry chemical, foam, or carbon dioxide. Water may be ineffective. Water spray may be used to keep fire-exposed cylinders cool. Do not use straight stream of water.

FIRE-FIGHTING INSTRUCTIONS: Emergency responders in the danger area should wear bunker gear and a self-contained breathing apparatus in the positive-pressure demand. Keep cylinders cool with water spray or fog. If gas existing container ignites, stop flow of gas. Do not put the fire unless leak can be stopped

FIRE & EXPLOSION HAZARDS: Receptacles can explode in fire situations. Under fire conditions, toxic and irritating gases may be emitted. This material forms flammable mixtures with air in a narrow flammability ranges. Vapours may travel considerable distances to a source of ignition where they can ignite, flashback, or explode. Vapours are heavier than air and can accumulate in low areas such as sewers.

DECOMPOSITION PRODUCTS: Combustion by-products include oxides of carbon, phosgene, and hydrogen chloride gases.

Section 6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Evacuate and ventilate the spill area. Turn off any sources of ignition. Wear skin and eye protection and a positive pressure air-supplied respirator during clean up. High vapour concentrations can rapidly accumulate in an enclosed or poorly ventilated space. Contain the spill. Prevent liquid from entering sewers. Soak up liquid with an inert material (vermiculite, dry sand, earth) and shovel into waste containers. Remove containers from the work area.

Section 7. HANDLING AND STORAGE

HANDLING: Workers who have a history of cardiovascular disease and/or cigarette smokers will be at increased risk if exposed to high concentrations of the methylene chloride, as a result of the development of increased levels of carboxyhemoglobin. Prevent skin contact. Avoid breathing vapours. Because of its high volatility vapours are heavier than air and can rapidly collect in poorly ventilated low areas. All equipment should be properly grounded. Keep away from food.

STORAGE: Keep cylinders tightly closed when not in use. Store in a cool, well-ventilated area away from sources of heat, ignition, and direct sunlight. Protect against physical damage. Do not heat above 52 deg. C.

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTION EQUIPMENT:

EYE/FACE PROTECTION: Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in the work area.

SKIN PROTECTION: Wear impervious protective clothing, including boots, gloves, apron or coveralls, as appropriate, to prevent skin contact. Neoprene is a recommended material for personal protective equipment. Natural rubber and polyvinyl chloride are NOT recommended materials for personal protective equipment.

RESPIRATORY PROTECTION: If the exposure limit is exceeded, wear a supplied air, full-face piece respirator AX standard, airlined hood, or full-face piece self-contained breathing apparatus. Consult the European Standard EN 149.

ENGINEERING CONTROLS:

VENTILATION: A local and/or general exhaust system is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

OTHER CONTROL MEASURES: Ground all equipment and cylinders before use. Oxygen levels should be at least 19.5% in confined spaces or other work areas.

MAXIMUM EXPOSURE LIMITS:

Methylene Chloride (Dichloromethane)	Long Term Exposure (8 hour TWA) - 100 ppm or 350 mg/m ³
	Short Term Exposure (15 min) - 300 ppm or 1060 mg/m ³

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT:	-48 deg. C	SOLUBILITY IN WATER:	0.9 g/100 ml @ 20 deg. C
VAPOUR PRESSURE (mm Hg):	349 @ 20 deg. C	SPECIFIC GRAVITY:	0.94
VAPOUR DENSITY (air=1):	2.9	pH:	Not applicable
% VOLATILE BY WEIGHT:	70 - 82	MELTING POINT:	-97 deg. C
APPEARANCE AND ODOUR:	Maroon or amber liquid with an ether-like odour.		
FLASH POINT:	< -104.4 deg. C Flammable per flame projection test.		
FLAMMABLE LIMITS IN AIR % BY VOLUME:			
LOWER FLAMMABLE LIMIT:	1.8	UPPER FLAMMABLE LIMIT:	9.5
AUTO-IGNITION TEMPERATURE:	454 deg. C		

Extremely flammable liquid and vapour! Vapour may cause flash fire.

EXTINGUISHING MEDIA: Dry chemical, foam, or carbon dioxide. Water may be ineffective. Water spray may be used to keep fire-exposed cylinders cool. Do not use straight stream of water.

Section 10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal conditions of use and storage. Avoid contact with aluminium equipment such as tanks, pumps, and fittings. Aluminium-catalyzed decomposition gas can rupture confined areas in the equipment with explosive force.

CONDITIONS TO AVOID: Moisture, heat, flames, ignition sources and incompatibles.

INCOMPATIBILITY: Strong oxidizers, strong alkalis, plastic, nitric acid, and chemically active metals, such as aluminium, magnesium powder, sodium, potassium, barium, titanium, and lithium. Avoid contact with open flames and electrical arcs. In the presence of air and water at elevated temperatures, methylene chloride may corrode iron, some stainless steel, copper and nickel.

DECOMPOSITION PRODUCTS:

THERMAL DECOMPOSITION: Hydrogen chloride, hydrofluoric acid, and traces of phosgene.

Carbon dioxide and carbon monoxide may form when heated to decomposition.

CHEMICAL DECOMPOSITION: Hydrogen chloride

HAZARDOUS POLYMERIZATION: Will not occur.

Section 11. TOXICOLOGICAL INFORMATION

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Persons with pre-existing skin disorders, eye problems, impaired liver, kidney, respiratory or cardiovascular functions may be more susceptible to the effects of this product. Alcoholic beverage consumption can enhance the toxic effects of this material.

TARGET ORGANS: Central nervous system, kidney, liver.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: Vapours can cause eye irritation. Contact can produce severe irritation, with stinging, tearing redness, pain, inflammation, and temporal eye damage. Contact with liquefied gas can cause frostbite and burns.

SKIN CONTACT: Can be absorbed through the skin. Causes irritation due to de-fatting, with stinging, redness, and pain. Prolonged contact can cause burns. Contact with the liquefied gas or gas under pressure may cause skin burns and frostbite.

INGESTION: May cause damage to the lining of the gastrointestinal tract. May cause irritation of the gastrointestinal tract with vomiting. If vomiting results in aspiration, chemical pneumonia could follow. Absorption through gastrointestinal tract may produce symptoms of central nervous system depression ranging from light-headedness to unconsciousness.

INHALATION: Causes irritation to respiratory tract. Has a strong narcotic effect with symptoms of mental confusion, light-headedness, fatigue, nausea, vomiting, and headache. Causes formation of carbon monoxide in blood, which affects cardiovascular system and central nervous system. Continued exposure may cause increased light-headedness, unconsciousness, coma, and even death. Exposure may worsen the symptoms of angina.

SUBCHRONIC, CHRONIC: Can cause headache, mental confusion, depression, and liver effects, kidney effects, bronchitis, loss of appetite, nausea, lack of balance, and visual disturbances. Can cause dermatitis upon prolonged skin contact. Methylene chloride may cause cancer in humans. Intentional misuse or deliberate inhalation may cause death without warning. Vapour reduces oxygen available for breathing and is heavier than air.

CARCINOGENICITY:

NTP: Known: No Anticipated: Yes Rating: 2

IARC: Category 2B

OSHA: No

ON PRODUCT: No information is available on the formulated product.

ON INGREDIENTS:

<u>Chemical Name</u>	<u>Oral LD₅₀ (rat)</u>	<u>Dermal LD₅₀ (rabbit)</u>	<u>Inhalation LC₅₀ (rat)</u>
Methylene chloride (Dichloromethane)	1600 mg/kg	Not available	52 gm/m ³

Methylene chloride (Dichloromethane): It has been linked to spontaneous abortions in humans. It is being investigated as a tumorigen, mutagen, and reproductive effector.

Section 12. ECOLOGICAL INFORMATION

ON PRODUCT: When released into the soil, this material may leach into the groundwater, but is expected to evaporate quickly leaving a small amount of residue. When released into the water, this material is expected to quickly evaporate and may biodegrade to a moderate extent. This material is not expected to bioaccumulate.

ON INGREDIENTS:

Chemical Name

Methylene chloride (Dichloromethane)

Aquatic Toxicity Data

LC50/96 hour value for fish is over 100 mg/L

This material is not expected to be toxic to aquatic life.

Section 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with Regional, National and EEC regulations. Cylinders must be completely vented of gas before being pierced with spark resistant tool for disposal. Refillable type cylinders must have valve assembly removed for disposal.

Section 14. TRANSPORT INFORMATION

Must be transported in accordance with the Carriage of Dangerous Goods by Road and Rail Regs. Classification, Packaging and Labelling Regs and ADR.

Class/Division:	2.1
Proper Shipping Name:	Liquefied gas, Flammable, n.o.s. (contains Methylene chloride, Propane and Isobutane)
Transport Category:	2
ID Number:	UN3161

Section 15. REGULATORY INFORMATION



HARMFUL



EXTREMELY
FLAMMABLE

RISK AND SAFETY PHRASES:

R12 Extremely flammable
R40 Limited evidence of carcinogenic effect
S2 Keep out of reach of children
S9 Keep container in a well ventilated area
S16 Keep away from sources of ignition – no smoking
S23 Do not breathe fumes
S24,25 Avoid contact with skin and eyes
S29 Do not empty into drains
S36,37 Wear suitable protective clothing and gloves

SOURCES OF INFORMATION

Chemical Hazards Information and Packaging Regs
Control of Substances Hazardous to Health Regs
Health and Safety Executive EH40 list
Health & Safety at Work (etc) Act

Section 16. OTHER INFORMATION

USERS RESPONSIBILITY/DISCLAIMER OF LIABILITY:

This MSDS cannot cover all the possible situations, which the user may experience during processing. Each aspect of your operation should be examined if, or where, additional precautions may be necessary. Individuals handling this product should be informed of the recommended safety precautions and have access to this information as part of an ongoing chemical hygiene and safety program.

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any other processes. As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this material. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use or the material or the results to be obtained from the use thereof. Compliance with all applicable laws and regulations remains the responsibility of the user that may be pertinent in the handling, storage, application, and disposal of this product.

MSDS REVISION SUMMARY:

FEBRUARY 2004