DIVISION: ADHESIVES DIVISION
TRADE NAME: 3M Super 77-N Spray Adhesive (Obsolete)
ID NUMBER/U.P.C.: 62-4494-4830-7  00-21200-21230-7
ISSUED: February 02, 1999                           (Inactive)
SUPERSEDES: August 29, 1996
DOCUMENT: 10-3307-5

1. INGREDIENT                            C.A.S. NO.         PERCENT

METHYLENE CHLORIDE......................   75-09-2       40.0    - 50.0
CHLORODIFLUOROMETHANE...................   75-45-6       30.0    - 40.0
1,1,1-TRICHLOROETHANE...................   71-55-6       10.0    - 20.0
NON-VOLATILE COMPONENTS - N.J. TRADE
SECRET (T.S.) REGISTRY NO. 04499600-
5459P ++..............................   TradeSecret   10.0    - 20.0
1,4-DIOXANE.............................   123-91-1      0.1     - 1.0
++ synthetic polymer, rosin, antioxidant and resin.

This product contains the following toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR Part 372:
METHYLENE CHLORIDE
CHLORODIFLUOROMETHANE
1,1,1-TRICHLOROETHANE
1,4-DIOXANE

2. PHYSICAL DATA

BOILING POINT: Compressed gas
VAPOR PRESSURE: Compressed gas
VAPOR DENSITY: 4.60 Air=1
EVAPORATION RATE: 0.40 Ether=1
SOLUBILITY IN WATER: Very low
SPECIFIC GRAVITY: 1.300 Water=1
PERCENT VOLATILE: ca. 89.00 % by wt

Abbreviations: N/D - Not Determined  N/A - Not Applicable  CA - Approximately
2. PHYSICAL DATA (continued)

pH:......................... N/A
VISCOOSITY:................ N/A
MELTING POINT:............ N/D

APPEARANCE AND ODOR:
Clear-light amber, sweet odor

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:............... None
FLAMMABLE LIMITS - LEL:.... 7.50 % by vol
FLAMMABLE LIMITS - UEL:.... 15.00 % by vol
AUTOIGNITION TEMPERATURE:... N/D

EXTINGUISHING MEDIA:
Non-flammable

SPECIAL FIRE FIGHTING PROCEDURES:
Fire fighters should be equipped with self-contained breathing apparatus when fighting fires involving this material.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
Non-flammable. Aerosol cans may explode when heated. Treat as a pressurized container. Contact with aluminum or zinc (galvanized) parts in a pressurized fluid system may result in an explosion.

NFPA HAZARD CODES:  HEALTH: 2  FIRE: 0  REACTIVITY: 0
UNUSUAL REACTION HAZARD: none

4. REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:
N/A

CONDITIONS TO AVOID: Do not puncture or incinerate container. Do not store at temperatures above 120F.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:
CO, CO2, HCl or other hazardous chlorinated decomposition products when subjected to excessive heat or flame or extremely hot surfaces.

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5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:
If cans rupture: Extinguish all ignition sources. Ventilate the area. Observe the precautions from other sections. Contain the spill. Cover with absorbent material as needed. Collect the spilled material. Place in a closed container.

RECOMMENDED DISPOSAL:
Incinerate absorbed and partially full cans after mixing with flammable material in an industrial or commercial facility. The facility must be capable of handling aerosol cans. Do not puncture or burn cans in a household incinerator. Dispose of empty cans in a sanitary landfill. Disposal should be in accordance with applicable regulations.

ENVIRONMENTAL DATA:
Volatile Organic Compound (VOC):
Maximum VOC = 27 grams/liter.
Maximum VOC minus Water minus Exempt Solvents = 56 grams/liter.
VOC's were calculated according to Rule 443.1 of the South Coast Air Quality Management District (SCAQMD).

REGULATORY INFORMATION:
Volatile Organic Compounds: 27.00 gms/liter.
VOC Less H2O & Exempt Solvents: N/D.

EPCRA HAZARD CLASS:
FIRE HAZARD: No PRESSURE: Yes REACTIVITY: No ACUTE: Yes CHRONIC: Yes

6. SUGGESTED FIRST AID

EYE CONTACT:
Immediately flush eyes with plenty of water for at least 10 minutes and call a physician.

SKIN CONTACT:
Wash with soap and water.

INHALATION:
Remove person to fresh air. Call a physician.

IF SWALLOWED:
Do not induce vomiting. Immediately call a physician or poison control center.

OTHER FIRST AID INFORMATION:
NOTE TO PHYSICIANS: Exposure to 1,1,1-trichloroethane may increase "myocardial irritability." Do not administer sympathomimetic drugs (i.e. adrenaline) unless absolutely necessary. No specific antidote.

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6. SUGGESTED FIRST AID (continued)

Supportive care and treatment based on judgement of physician in response to the patient recommended.

7. PRECAUTIONARY INFORMATION

Avoid vapor contact with open flames, welding arcs or other high temperature sources which might cause vapor decomposition to produce harmful gases. Contact with aluminum or zinc (galvanized) parts in a pressurized fluid system may result in an explosion. Avoid prolonged breathing of vapors and overspray (airborne particles) during application. Use only in areas with sufficient ventilation to maintain vapor and spray concentrations below recommended exposure limits. For high volume usage, local exhaust ventilation may be needed to maintain exposure levels below recommended limits. Avoid contact with eyes and skin. Use protective equipment, i.e. safety glasses and gloves as appropriate for the work situation. Use only as directed. Do not take internally. Intentional misuse by deliberately concentrating or swallowing the contents can be harmful or fatal. Do not store at temperatures above 120F. Do not puncture or incinerate. KEEP OUT OF THE REACH OF CHILDREN.

**EXPOSURE LIMITS**

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>VALUE</th>
<th>UNIT</th>
<th>TYPE</th>
<th>AUTH</th>
<th>SKIN*</th>
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<tbody>
<tr>
<td>METHYLENE CHLORIDE</td>
<td>50</td>
<td>PPM</td>
<td>TWA</td>
<td>ACGIH</td>
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<td>TWA</td>
<td>OSHA</td>
<td>Y</td>
</tr>
</tbody>
</table>

* SKIN NOTATION: Listed substances indicated with 'Y' under SKIN refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

SOURCE OF EXPOSURE LIMIT DATA:
- ACGIH: American Conference of Governmental Industrial Hygienists

Abbreviations: N/D - Not Determined  N/A - Not Applicable  CA - Approximately
EXPOSURE LIMITS (continued)

INGREDIENT | VALUE | UNIT | TYPE | AUTH | SKIN*
-------------------------------------------------------------------------------------------------------------------
- OSHA: Occupational Safety and Health Administration
- NONE: None Established

8. HEALTH HAZARD DATA

EYE CONTACT:
Spray may cause eye irritation upon direct contact.

SKIN CONTACT:
Prolonged skin contact may defat the skin leading to irritation. Methylene chloride may be absorbed through the skin in harmful amounts.

INHALATION:
Exposure to solvent vapor concentrations exceeding the recommended exposure limits may cause respiratory system irritation and temporary nervous system impairment. Symptoms of overexposure are irritation, dizziness, headache and nausea. Chronic (long-term) overexposure to solvent vapors may cause lung, liver and heart damage. Extreme (short-term) overexposure can result in numbness, heart damage, unconsciousness and death.

IF SWALLOWED:
Accidental ingestion is unlikely from an aerosol container. Intentional concentration and swallowing the liquid product may cause severe digestive system irritation, nausea and vomiting. Solvent aspiration into the lungs due to vomiting can cause lung damage and in the extreme may be fatal.

OTHER HEALTH HAZARD INFORMATION:
Studies on rats and mice subjected to high vapor concentrations establish methylene chloride as an animal carcinogen. However, the Halogenated Solvents Industry Alliance (HSIA) recognized that the human body handles methylene chloride differently than mice and rats. Based on the metabolic differences, HSIA concluded that "methylene chloride is very unlikely to cause cancer in humans."

NOTE: 1,1,1-trichloroethane contains stabilizers, including 1,4-dioxane, a potential cancer hazard. No carcinogenic potential was revealed from studies in which laboratory animals were exposed by inhalation or ingestion to 1,1,1-trichloroethane containing 2.0% 1,4-dioxane. No birth defects or reproductive disorders were observed among exposed laboratory animals.

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