

MATERIAL SAFETY 3M
DATA SHEET 3M Center
St. Paul, Minnesota
55144-1000
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DIVISION: INDUSTRIAL TAPE AND SPECIALTIES DIVISION

TRADE NAME:

3M 90 High Strength Adhesive (obsolete)

ISSUED: August 10, 1999

SUPERSEDES: August 11, 1998

DOCUMENT: 08-7154-1

| 1. INGREDIENT | C.A.S. NO. | PERCENT |
|--------------------------------------|-------------|-------------|
| DIMETHYL ETHER (PROPELLANT)..... | 115-10-6 | 50.0 - 60.0 |
| PENTANE..... | 109-66-0 | 10.0 - 20.0 |
| ACETONE..... | 67-64-1 | 10.0 - 20.0 |
| NON-VOLATILE COMPONENTS - NEW JERSEY | | |
| TRADE SECRET (T.S.) REGISTRY NO. | | |
| 04499600-5548P ++..... | TradeSecret | 7.0 - 13.0 |
| CYCLOHEXANE..... | 110-82-7 | 3.0 - 7.0 |

++ synthetic elastomers, hydrocarbon resin, antioxidant, and
u.v. absorber. Not hazardous according to Canadian WHMIS
criteria. Non-WHMIS controlled.

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:
CYCLOHEXANE

2. PHYSICAL DATA

BOILING POINT:..... Compressed gas
VAPOR PRESSURE:..... Compressed gas
VAPOR DENSITY:..... N/D
EVAPORATION RATE:..... N/D
SOLUBILITY IN WATER:..... Nil
SPECIFIC GRAVITY:..... ca. .7 Water=1
PERCENT VOLATILE:..... ca. 89 % by wt
pH:..... N/A

VISCOSITY:..... N/A - aerosol
MELTING POINT:..... N/D

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

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2. PHYSICAL DATA (continued)

APPEARANCE AND ODOR:
Clear liquid in aerosol, solvent odor

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:..... <-40F (Closed Cup/Propellant)
FLAMMABLE LIMITS - LEL:..... N/A
FLAMMABLE LIMITS - UEL:..... Flammable Gas
AUTOIGNITION TEMPERATURE:..... N/D

EXTINGUISHING MEDIA:
Water spray, Carbon dioxide, Dry chemical, Foam

SPECIAL FIRE FIGHTING PROCEDURES:
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head. Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back.

NFPA HAZARD CODES: HEALTH: 2 FIRE: 4 REACTIVITY: 1 AEROSOL STORAGE: 3
UNUSUAL REACTION HAZARD: none

4. REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:
Heat.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon Monoxide and Carbon Dioxide, Aldehydes, Ketones, Hydrocarbons.

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5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Ventilate area. Extinguish all ignition sources. Cover with absorbent material. Collect using non-sparking tools. Place in a U.S. DOT-approved container.

RECOMMENDED DISPOSAL:

Incinerate in a permitted hazardous waste incinerator in the presence of a combustible material. Facility must be capable of handling aerosol cans. Dispose of empty cans in a sanitary landfill. Dispose of completely absorbed waste product in a facility permitted to accept chemical wastes.

RECYCLE EMPTY AEROSOL CONTAINERS WHERE AVAILABLE.

ENVIRONMENTAL DATA:

Not determined.

REGULATORY INFORMATION:

Volatile Organic Compounds: ca. 77 % calculated per SCAQMD rule 443.1.

Volatile Organic Compounds: ca. 540 gms/liter calculated per SCAQMD rule 443.1.

VOC Less H₂O & Exempt Solvents: ca. 600 gms/liter calculated per SCAQMD rule 443.1.

Hazardous Air Pollutants: ca. 0 #/# solids calculated.

Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste Number = D001 (Ignitable)

EPCRA HAZARD CLASS:

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

6. SUGGESTED FIRST AID

EYE CONTACT:

Immediately flush eyes with large amounts of water. Get immediate medical attention.

SKIN CONTACT:

Flush skin with large amounts of water. If irritation persists, get medical attention.

INHALATION:

Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

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6. SUGGESTED FIRST AID (continued)

IF SWALLOWED:

Do not induce vomiting. Drink two glasses of water. Call a physician.

7. PRECAUTIONARY INFORMATION

EYE PROTECTION:

Avoid eye contact with vapor, spray, or mist. Wear safety glasses with side shields.

SKIN PROTECTION:

Avoid prolonged or repeated skin contact.

RECOMMENDED VENTILATION:

Do not use in a confined area or areas with little or no air movement. If exhaust ventilation is not adequate, use appropriate respiratory protection. Provide ventilation adequate to control vapor concentrations below recommended exposure limits and/or control spray or mist.

RESPIRATORY PROTECTION:

Avoid breathing of vapors, mists or spray. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: half-mask organic vapor respirator.

PREVENTION OF ACCIDENTAL INGESTION:

Do not ingest.

RECOMMENDED STORAGE:

Store at temperatures below 120 degrees F (49 degrees C). Store out of direct sunlight. Keep out of the reach of children.

FIRE AND EXPLOSION AVOIDANCE:

Aerosol container contains flammable gas under pressure. Keep away

from heat, sparks, open flame, and other sources of ignition.
 Extremely flammable liquid and vapor. Do not pierce or burn
 container, even after use. No smoking while handling this material.
 Avoid static discharge.

EXPOSURE LIMITS

| INGREDIENT | VALUE | UNIT | TYPE | AUTH | SKIN* |
|----------------------------------|-------|-------|------|-------|-------|
| DIMETHYL ETHER (PROPELLANT)..... | 1000 | PPM | TWA | CMRG | |
| DIMETHYL ETHER (PROPELLANT)..... | 500 | PPM | TWA | AIHA | |
| DIMETHYL ETHER (PROPELLANT)..... | 942 | MG/M3 | TWA | AIHA | |
| PENTANE..... | 600 | PPM | TWA | ACGIH | |

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EXPOSURE LIMITS (continued)

| INGREDIENT | VALUE | UNIT | TYPE | AUTH | SKIN* |
|-------------------------------------|-------|------|------|-------|-------|
| PENTANE..... | 600 | PPM | TWA | OSHA | |
| PENTANE..... | 750 | PPM | STEL | OSHA | |
| ACETONE..... | 500 | PPM | TWA | ACGIH | |
| ACETONE..... | 750 | PPM | STEL | ACGIH | |
| ACETONE..... | 750 | PPM | TWA | OSHA | |
| ACETONE..... | 1000 | PPM | STEL | OSHA | |
| NON-VOLATILE COMPONENTS - NEW | | | | | |
| JERSEY TRADE SECRET (T.S.) | | | | | |
| REGISTRY NO. 04499600-5548P ++..... | NONE | NONE | NONE | NONE | NONE |
| CYCLOHEXANE..... | 300 | PPM | TWA | ACGIH | |
| CYCLOHEXANE..... | 300 | PPM | TWA | OSHA | |

* 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
- AIHA: American Industrial Hygiene Assoc. Workplace Environmental Exposure Level Guideline
- CMRG: Chemical Manufacturer Recommended Exposure Guidelines
- OSHA: Occupational Safety and Health Administration

- NONE: None Established

8. HEALTH HAZARD DATA

EYE CONTACT:

Moderate Eye Irritation: signs/symptoms can include redness, swelling,

pain, tearing, and hazy vision.

SKIN CONTACT:

Mild Skin Irritation (after prolonged or repeated contact):
signs/symptoms can include redness, swelling, and itching.

INHALATION:

Intentional concentration and inhalation may be harmful or fatal.

Kidney Effects: signs/symptoms can include reduced urine volume,
blood in urine and back pain.

Liver Effects: signs/symptoms can include yellow skin(jaundice) and
tenderness of upper abdomen.

Central Nervous System Depression: signs/symptoms can include
headache, dizziness, drowsiness, incoordination, slowed reaction time,
slurred speech, giddiness and unconsciousness.

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8. HEALTH HAZARD DATA (continued)

Irritation (upper respiratory): signs/symptoms can include soreness
of the nose and throat, coughing and sneezing.

IF SWALLOWED:

Ingestion is not a likely route of exposure to this product.

WHILE THE FOLLOWING EFFECTS ARE ASSOCIATED WITH ONE OR MORE OF THE
INDIVIDUAL INGREDIENTS IN THIS PRODUCT AND ARE REQUIRED TO BE
INCLUDED ON THE MSDS BY THE U.S. OSHA HAZARD COMMUNICATION STANDARD,
THEY ARE NOT EXPECTED EFFECTS DURING FORESEEABLE USE OF THIS PRODUCT.

Irritation of Gastrointestinal Tissues: signs/symptoms can include
pain, vomiting, abdominal tenderness, nausea, blood in vomitus, and
blood in feces.

SECTION CHANGE DATES

PRECAUTIONARY INFO. SECTION CHANGED SINCE August 11, 1998 ISSUE

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