

MATERIAL SAFETY 3M  
 DATA SHEET 3M Center  
 St. Paul, Minnesota  
 55144-1000  
 1-800-364-3577 or (651) 737-6501 (24 hours)

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DIVISION: ENGINEERED ADHESIVES  
 TRADE NAME:  
 Scotch-Grip (TM) 4693 H Plastic Adhesive  
 ID NUMBER/U.P.C.:  
 62-4495-2631-8 00-21200-30088-2 62-4495-2635-9 - - -  
 ISSUED: May 18, 2001  
 SUPERSEDES: August 09, 1999  
 DOCUMENT: 07-9492-5

1. INGREDIENT	C.A.S. NO.	PERCENT
CYCLOHEXANE.....	110-82-7	55 - 65
STYRENE-BUTADIENE POLYMER.....	9003-55-8	7.0 - 13.0
POLYTERPENE RESIN.....	31393-98-3	7.0 - 13.0
DIPENTENE POLYMER.....	9003-73-0	7.0 - 13.0
ACETONE.....	67-64-1	1 - 5
METHYLSTYRENE POLYMER.....	9017-27-0	.5 - 1.5

The components of this product are in compliance with the chemical notification requirements of TSCA. All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS.

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:..... 176.00 F (cyclohexane)
VAPOR PRESSURE:..... 77 mmHg @ 68F
VAPOR DENSITY:..... 2.90 Air=1
EVAPORATION RATE:..... > 2.00 Water=1
SOLUBILITY IN WATER:..... slight

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

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2. PHYSICAL DATA (continued)  
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SPECIFIC GRAVITY:..... .84 Water=1  
PERCENT VOLATILE:..... ca. 65 % by wt  
pH:..... N/D  
VISCOSITY:..... ca. 2600 centipoise  
MELTING POINT:..... N/D

APPEARANCE AND ODOR:

Liquid, colorless to light amber

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3. FIRE AND EXPLOSION HAZARD DATA  
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FLASH POINT:..... 1 F  
FLAMMABLE LIMITS - LEL:..... 1.35 % by vol  
FLAMMABLE LIMITS - UEL:..... 8.35 % by vol  
AUTOIGNITION TEMPERATURE:..... N/D

EXTINGUISHING MEDIA:

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.

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: 3 REACTIVITY: 0  
UNUSUAL REACTION HAZARD: none

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4. REACTIVITY DATA  
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STABILITY: Stable

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:

Strong Oxidizing Agents.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

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4. REACTIVITY DATA (continued)  
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HAZARDOUS DECOMPOSITION PRODUCTS:

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

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5. ENVIRONMENTAL INFORMATION  
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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. Dispose of waste product in a facility permitted to accept chemical waste.

ENVIRONMENTAL DATA:

Not determined.

REGULATORY INFORMATION:

Volatile Organic Compounds: ca. 506 gms/liter calculated per SCAQMD rule 443.1.

VOC Less H<sub>2</sub>O & Exempt Solvents: ca. 530 gms/liter calculated per SCAQMD rule 443.1.

Hazardous Air Pollutants: < .01 #/# 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: No REACTIVITY: No ACUTE: Yes CHRONIC: Yes

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6. SUGGESTED FIRST AID  
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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.

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6. SUGGESTED FIRST AID (continued)  
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INHALATION:

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

IF SWALLOWED:

If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

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7. PRECAUTIONARY INFORMATION  
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EYE PROTECTION:

Avoid eye contact. Wear safety glasses with side shields.

SKIN PROTECTION:

Avoid prolonged or repeated skin contact. Wear appropriate gloves when handling this material. A pair of gloves made from the following material(s) are recommended: polyethylene/ethylene vinyl alcohol, polytetrafluoroethylene (Teflon).

RECOMMENDED VENTILATION:

Do not use in a confined area or areas with little or no air movement. Use in a well-ventilated area. 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 prolonged breathing of vapors. 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:

Wash hands after handling and before eating. Do not ingest.

RECOMMENDED STORAGE:

Store in a cool place. Store away from heat. Keep container closed when not in use. Keep out of the reach of children.

FIRE AND EXPLOSION AVOIDANCE:

Keep container tightly closed. Keep away from heat, sparks, open flame, and other sources of ignition. Extremely flammable liquid and vapor. No smoking while handling this material.

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7. PRECAUTIONARY INFORMATION (continued)  
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EXPOSURE LIMITS

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*
CYCLOHEXANE.....	300	PPM	TWA	ACGIH	
CYCLOHEXANE.....	300	PPM	TWA	OSHA	
STYRENE-BUTADIENE POLYMER.....	NONE	NONE	NONE	NONE	
POLYTERPENE RESIN.....	NONE	NONE	NONE	NONE	
DIPENTENE POLYMER.....	NONE	NONE	NONE	NONE	
ACETONE.....	500	PPM	TWA	ACGIH	
ACETONE.....	750	PPM	STEL	ACGIH	
ACETONE.....	750	PPM	TWA	OSHAV	
		OSHA VACATED PEL			
ACETONE.....	1000	PPM	STEL	OSHAV	
		OSHA VACATED PEL			
ACETONE.....	1000	PPM	TWA	OSHA	
METHYLSTYRENE POLYMER.....	NONE	NONE	NONE	NONE	

\* 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
- OSHA: Occupational Safety and Health Administration
- OSHAV: Occupational Safety and Health Administration Vacated PEL. Vacated Permissible Exposure Limits (PEL) are enforced as the OSHA PEL in some states. Check with your local regulatory authority.
- NONE: None Established

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8. HEALTH HAZARD DATA  
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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:

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

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.

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.

IF SWALLOWED:

Ingestion may cause:

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

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Ingestion may cause:

Central Nervous System Depression: signs/symptoms can include headache, dizziness, drowsiness, muscular weakness, incoordination, slowed reaction time, fatigue, blurred vision, slurred speech, giddiness, tremors and convulsions.

Aspiration Pneumonitis: signs/symptoms can include coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

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SECTION CHANGE DATES  
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HEADING SECTION CHANGED SINCE August 09, 1999 ISSUE

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