MATERIAL SAFETY DATA SHEET

3M
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DIVISION: TRAFFIC CONTROL MATERIALS DIVISION
TRADE NAME:
3M(TM) SCOTCHLITE(TM) PROCESS COLOR 8821 RED 8821

ID NUMBER/U.P.C.:
42-0015-6927-0 - - 42-0016-1340-7 - - -
75-0300-4987-0 00-51138-65089-6 75-0300-4988-8 00-51138-65090-2
75-0300-6120-6 00-51138-68438-9

ISSUED: November 12, 2001
SUPERSEDES: February 06, 2001
DOCUMENT: 08-1767-6

1. INGREDIENT	C.A.S. NO.		PERCENT
DIPROPYLENE GLYCOL METHYL ETHER ACETATE.	88917-22-0	30.0	- 60.0
BUTYL METHACRYLATE-METHYL METHACRYLATE POLYMER	25608-33-7	15.0	- 40.0
1-METHOXY-2-PROPYL ACETATE	108-65-6	7.0	- 13.0
CYCLOHEXANONE	108-94-1	7.0	- 13.0
VINYL POLYMER (NEW JERSEY TRADE SECRET REGISTRY #04499600-5238P)	TradeSecret	1.0	- 5.0
ORGANIC PIGMENT (NJTS #04499600-5232P)	TradeSecret	1.0	- 5.0
ORGANIC PIGMENT (NJTS #04499600-5245P)	TradeSecret	1.0	- 5.0
XYLENE	1330-20-7	1.0	- 5.0
TOLUENE	108-88-3		0.58
NICKEL SALTS OF NAPHTHENIC ACIDS	61788-71-4		0.22
ETHYL ACETATE	141-78-6		0.20

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:
XYLENE
TOLUENE
NICKEL SALTS OF NAPHTHENIC ACIDS

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

2. PHYSICAL DATA

BOILING POINT:..... 250.00 - 380.00 F
VAPOR PRESSURE:..... < 27 psia
VAPOR DENSITY:..... N/D
EVAPORATION RATE:..... < 0.04 BuOAc=1
SOLUBILITY IN WATER:..... N/D
SPECIFIC GRAVITY:..... > 1.000 Water=1
PERCENT VOLATILE:..... 65.00 - 75.00 %
pH:..... N/A
VISCOSITY:..... 1000.0 - 2000.0 centipoise
MELTING POINT:..... N/D

APPEARANCE AND ODOR:
Liquid, red, sweet ether-like odor

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:..... 100.00 F TCC
FLAMMABLE LIMITS - LEL:..... N/D
FLAMMABLE LIMITS - UEL:..... N/D
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:
Vapors may travel long distances along the ground or floor to an ignition source and flash back.

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

OSHA FIRE HAZARD CLASS: Class II Combustible Liquid

4. REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:
Strong Acids, Strong Oxidizing Agents.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:
Carbon Monoxide and Carbon Dioxide, Hydrogen Chloride, Hydrocarbons.

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. Contain spill. Cover with inorganic absorbent material. Collect spilled material. Clean up residue. Place in a U.S. DOT-approved container. Seal the container.

RECOMMENDED DISPOSAL:
Incinerate in a permitted hazardous waste incinerator. Reclaim if feasible.

ENVIRONMENTAL DATA:
Not applicable.

REGULATORY INFORMATION:
Volatile Organic Compounds: ca. 625.00 gms/liter As applied..
VOC Less H2O & Exempt Solvents: N/D.

Since regulations vary, consult applicable regulations or authorities before disposal. In the event of an uncontrolled release of this material, the user should determine if the release qualifies as a reportable quantity. U.S. EPA Hazardous Waste Number = D001 (Ignitable)

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

6. SUGGESTED FIRST AID

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

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

6. SUGGESTED FIRST AID (continued)

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.

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.

7. PRECAUTIONARY INFORMATION

EYE PROTECTION:
Avoid eye contact. Wear unvented goggles during operations in which exposure is likely.

SKIN PROTECTION:
Avoid skin contact. Wear appropriate gloves when handling this material. A pair of gloves made from the following material(s) are recommended: butyl rubber. Use one or more of the following personal protection items as necessary to prevent skin contact: apron. Protective garments (other than gloves) should be made of either of the following materials: butyl rubber.

RECOMMENDED VENTILATION:
Use with appropriate local exhaust ventilation. Provide appropriate local exhaust ventilation at transfer points. Provide appropriate local exhaust ventilation on open containers. Use with adequate dilution ventilation. If exhaust ventilation is not adequate, use appropriate respiratory protection.

RESPIRATORY PROTECTION:
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, full-face organic vapor respirator.

PREVENTION OF ACCIDENTAL INGESTION:
Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

7. PRECAUTIONARY INFORMATION (continued)

RECOMMENDED STORAGE:
Store in a cool place. Store away from acids. Store away from heat. Store out of direct sunlight. Keep away from aluminum and zinc. Keep container in well-ventilated area.

FIRE AND EXPLOSION AVOIDANCE:
Keep container tightly closed. Keep away from heat, sparks, open flame, and other sources of ignition. Prevent all sources of ignition. Ground containers securely when transferring contents. Wear low static or properly grounded shoes. Combustible liquid and vapor. No smoking while handling this material. Vapors may ignite explosively. May form explosive peroxides. Avoid shock or friction.

HMIS HAZARD RATINGS: HEALTH: 2 FLAMMABILITY: 2 REACTIVITY: 0
PERSONAL PROTECTION: H

EXPOSURE LIMITS

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*
DIPROPYLENE GLYCOL METHYL ETHER ACETATE	100	PPM	TWA	3M	Y
DIPROPYLENE GLYCOL METHYL ETHER ACETATE	150	PPM	STEL	3M	Y
BUTYL METHACRYLATE-METHYL METHACRYLATE POLYMER	NONE	NONE	NONE	NONE	
1-METHOXY-2-PROPYL ACETATE	100	PPM	TWA	CMRG	
1-METHOXY-2-PROPYL ACETATE	100	PPM	TWA	AIHA	
CYCLOHEXANONE	25	PPM	TWA	ACGIH	Y
CYCLOHEXANONE	25	PPM	TWA	OSHAV	Y
	OSHA VACATED PEL				
CYCLOHEXANONE	50	PPM	TWA	OSHA	
VINYL POLYMER (NEW JERSEY TRADE SECRET REGISTRY #04499600-5238P)	NONE	NONE	NONE	NONE	
ORGANIC PIGMENT (NJTS #04499600-5232P)	NONE	NONE	NONE	NONE	
ORGANIC PIGMENT (NJTS #04499600-5245P)	NONE	NONE	NONE	NONE	
XYLENE	100	PPM	TWA	ACGIH	
XYLENE	150	PPM	STEL	ACGIH	
XYLENE	100	PPM	TWA	OSHA	
XYLENE	150	PPM	STEL	OSHA	
TOLUENE	50	PPM	TWA	ACGIH	Y
TOLUENE	100	PPM	TWA	OSHAV	
	OSHA VACATED PEL				
TOLUENE	150	PPM	STEL	OSHAV	
	OSHA VACATED PEL				
TOLUENE	200	PPM	TWA	OSHA	
TOLUENE	300	PPM	CEIL	OSHA	
TOLUENE	75	PPM	STEL	CMRG	Y

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

EXPOSURE LIMITS (continued)

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*
NICKEL SALTS OF NAPHTHENIC ACIDS.....	NONE	NONE	NONE	NONE	
ETHYL ACETATE.....	400	PPM	TWA	ACGIH	
ETHYL ACETATE.....	400	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:
- 3M: 3M Recommended Exposure Guidelines
- 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
- 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

8. HEALTH HAZARD DATA

EYE CONTACT:
Mild Eye Irritation: signs/symptoms can include redness, swelling, pain, and tearing.

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

May be absorbed through the skin and produce effects similiar to those caused by inhalation and/or ingestion.

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.

Allergic Skin Reaction: signs/symptoms can include redness, swelling, blistering, and itching.

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

8. HEALTH HAZARD DATA (continued)

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 is not a likely route of exposure to this product.

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

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.

CANCER:
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.

WARNING: Contains a chemical which can cause cancer. (Nickel Compounds) (Calif. Proposition 65)

REPRODUCTIVE/DEVELOPMENTAL TOXINS:
WARNING: Contains a chemical which can cause birth defects. (108-88-3)

SECTION CHANGE DATES

PRECAUTIONARY INFO. SECTION CHANGED SINCE February 06, 2001 ISSUE

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