

MATERIAL SAFETY 3M
 DATA SHEET 3M Center
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DIVISION: COMMERCIAL GRAPHICS
 TRADE NAME:

3M(TM) SCREEN PRINTING INK 9797 HALFTONE BASE
 ID NUMBER/U.P.C. :
 75-3466-8636-5 00-51128-34176-6 75-3466-8637-3 00-51128-34177-3
 ISSUED: December 10, 2001
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 DOCUMENT: 05-7654-6

1. INGREDIENT	C.A.S. NO.	PERCENT
URETHANE ACRYLATE OLIGOMER.....	230302-77-9	20.0 - 30.0
VINYLCAPROLACTAM.....	2235-00-9	20.0 - 30.0
DIETHYLENE GLYCOL ETHER ACRYLATE..	7328-17-8	10.0 - 20.0
DIMETHYL SILOXANE, REACTION PRODUCT WITH SILICA.....	67762-90-7	10.0 - 20.0
2-PROPENOIC ACID,2- [[(BUTYLAMINO)CARBONYL]OXY]ETHYL ESTER	63225-53-6	7.0 - 13.0
1,6-HEXANEDIOL DIACRYLATE.....	13048-33-4	3.0 - 7.0
ISOCTYL ACRYLATE.....	29590-42-9	1.0 - 5.0
VINYL CHLORIDE-VINYL ACETATE POLYMER....	9003-22-9	1.0 - 5.0
BIS(1,2,2,6,6-PENTAMETHYL-4- PIPERIDINYL) SEBACATE.....	41556-26-7	0.5 - 1.5
POLY(DIMETHYLSILOXANE).....	63148-62-9	0.5 - 1.5
2,2-DIMETHOXY-2-PHENYLACETOPHENONE.....	24650-42-8	0.5 - 1.5
METHYL 1,2,2,6,6-PENTAMETHYL-4- PIPERIDINYL SEBACATE.....	82919-37-7	0.1 - 1.0

Non-photochemically reactive per SCAQMD Rule 102.
 * Non-hazardous per WHMIS

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:
 DIETHYLENE GLYCOL ETHER ACRYLATE

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

2. PHYSICAL DATA

BOILING POINT:..... ca. 205 F
VAPOR PRESSURE:..... < 10 mmHg
VAPOR DENSITY:..... > 1 Air=1
EVAPORATION RATE:..... < 1 BuOAc=1
SOLUBILITY IN WATER:..... moderate
SPECIFIC GRAVITY:..... ca. 1.3 Water=1 ASTM
PERCENT VOLATILE:..... N/A
PH:..... N/A
VISCOSITY:..... > 100000 centipoise ASTM
MELTING POINT:..... N/D

APPEARANCE AND ODOR:
Paste, milky, mild acrylate odor

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:..... > 200 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.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
Not determined.

NFPA HAZARD CODES: HEALTH: 3 FIRE: 1 REACTIVITY: 1
UNUSUAL REACTION HAZARD: none

OSHA FIRE HAZARD CLASS: Class IIIB Combustible Liquid

4. REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:
Strong Oxidizing Agents

Ultraviolet light and metal containers.

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4. REACTIVITY DATA (continued)

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon Monoxide and Carbon Dioxide, Oxides of Nitrogen.

5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:

Observe precautions from other sections. Ventilate area. Contain spill. Cover with absorbent material. Collect spilled material. Clean up residue with water. Place in a closed container.

RECOMMENDED DISPOSAL:

Incinerate in an industrial or commercial facility in the presence of a combustible material. Combustion products will include HCl. Disposal alternative: Dispose of waste product in a facility permitted to accept chemical waste.

ENVIRONMENTAL DATA:

Not determined.

REGULATORY INFORMATION:

Volatile Organic Compounds: < 5 gms/liter.
VOC Less H2O & Exempt Solvents: < 5 gms/liter.

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 = None (Not U.S. EPA Hazardous).

EPCRA HAZARD CLASS:

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

6. SUGGESTED FIRST AID

EYE CONTACT:

Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.

SKIN CONTACT:

Immediately flush skin with large amounts of water. Remove contaminated clothing. If irritation persists, call a physician. Wash contaminated clothing before reuse. Do not use solvents to remove material from skin or clothing.

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6. SUGGESTED FIRST AID (continued)

INHALATION:

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

IF SWALLOWED:

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

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: nitrile rubber, polyethylene/ethylene vinyl alcohol. Use one or more of the following personal protection items as necessary to prevent skin contact: apron, coveralls.

RECOMMENDED VENTILATION:

Use with appropriate local exhaust ventilation. Curing ovens must be exhausted to outdoors or to a suitable emission control device. Provide appropriate local exhaust ventilation on open containers. Use in a well-ventilated area. If exhaust ventilation is not adequate, use appropriate respiratory protection.

RESPIRATORY PROTECTION:

Avoid breathing of vapors created during the cure cycle. 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, 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. Wash hands after handling and before eating.

RECOMMENDED STORAGE:

Store in a cool place. Store away from acids. Store away from heat. Store out of direct sunlight. Keep container dry. Keep container closed when not in use. Keep container in well-ventilated area.

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 7. PRECAUTIONARY INFORMATION (continued)

FIRE AND EXPLOSION AVOIDANCE:

Keep container tightly closed. Keep away from heat, sparks, open flame, and other sources of ignition. Explosive when mixed with oxidizing substance.

EXPOSURE LIMITS

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*
URETHANE ACRYLATE OLIGOMER.....	NONE	NONE	NONE	NONE	
VINYLCAPROLACTAM.....	0.1	PPM	TWA	3M	
DIETHYLENE GLYCOL ETHYL ETHER ACRYLATE.....	NONE	NONE	NONE	NONE	
DIMETHYL SILOXANE, REACTION PRODUCT WITH SILICA.....	5	MG/M3 AS DUST	CEIL	CMRG	
2-PROPENOIC ACID, 2- [[(BUTYLAMINO) CARBONYL] OXY] ETHYL ESTER.....	NONE	NONE	NONE	NONE	
1,6-HEXANEDIOL DIACRYLATE.....	1	MG/M3	TWA	AIHA	
ISOCTYL ACRYLATE.....	5	PPM	TWA	AIHA	
ISOCTYL ACRYLATE.....	5	PPM	TWA	3M	
VINYL CHLORIDE-VINYL ACETATE POLYMER.....	NONE	NONE	NONE	NONE	
BIS(1,2,2,6,6-PENTAMETHYL-4- PIPERIDINYL) SEBACATE.....	1	MG/M3	TWA	CMRG	
POLY(DIMETHYLSILOXANE).....	NONE	NONE	NONE	NONE	
2,2-DIMETHOXY-2-PHENYLACETOPHENONE...	NONE	NONE	NONE	NONE	
METHYL 1,2,2,6,6-PENTAMETHYL-4- PIPERIDINYL SEBACATE.....	1	MG/M3	TWA	CMRG	

* 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
- AIHA: American Industrial Hygiene Assoc. Workplace Environmental Exposure Level Guideline
- CMRG: Chemical Manufacturer Recommended Exposure Guidelines
- NONE: None Established

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8. HEALTH HAZARD DATA

EYE CONTACT:

Severe Eye Irritation: signs/symptoms can include redness, swelling, pain, tearing, cloudy appearance of the cornea, impaired vision and possible permanently impaired vision.

SKIN CONTACT:

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

Single exposure may cause:

Severe Skin Irritation: signs/symptoms can include redness, swelling, itching, dryness, cracking, blistering, and pain.

INHALATION:

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

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.

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

IF SWALLOWED:

Esophageal Burns: signs/symptoms can include pain in throat, difficult swallowing and blood in sputum.

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

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.

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SECTION CHANGE DATES

HEADING	SECTION CHANGED SINCE May 21, 2001	ISSUE
INGREDIENTS	SECTION CHANGED SINCE May 21, 2001	ISSUE
PHYSICAL DATA	SECTION CHANGED SINCE May 21, 2001	ISSUE
REACTIVITY DATA	SECTION CHANGED SINCE May 21, 2001	ISSUE
ENVIRONMENTAL INFO.	SECTION CHANGED SINCE May 21, 2001	ISSUE
SUGG. FIRST AID	SECTION CHANGED SINCE May 21, 2001	ISSUE
PRECAUTIONARY INFO.	SECTION CHANGED SINCE May 21, 2001	ISSUE
HEALTH HAZARD DATA	SECTION CHANGED SINCE May 21, 2001	ISSUE

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