

MATERIAL SAFETY 3M
 DATA SHEET 3M Center
 St. Paul, Minnesota
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DIVISION: COMMERCIAL GRAPHICS
 TRADE NAME:

SCOTCHCAL BRAND SCREEN PRINTING INK 3903
 ID NUMBER/U.P.C. :
 75-3466-2548-8 - - - 75-5239-0302-1 00-51128-09752-6
 ISSUED: April 16, 2001
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1. INGREDIENT	C.A.S. NO.	PERCENT
TITANIUM DIOXIDE.....	13463-67-7	15.0 - 40.0
CYCLOHEXANONE.....	108-94-1	15.0 - 40.0
ISOPHORONE.....	78-59-1	10.0 - 30.0
VINYL CHLORIDE-VINYL ACETATE POLYMER....	9003-22-9	7.0 - 13.0
SILICA.....	7631-86-9	3.0 - 7.0
ALUMINA TRIHYDRATE.....	21645-51-2	1.0 - 5.0
BIS(2-ETHYLHEXYL)PHTHALATE.....	117-81-7	1.0 - 5.0
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM).....	64742-94-5	1.0 - 5.0
XYLENE.....	1330-20-7	0.1 - 1.0
BARIUM.....	7440-39-3	< 0.1
ETHYLBENZENE.....	100-41-4	< 0.1
CADMIUM.....	7440-43-9	< 0.1
VINYL ACETATE.....	108-05-4	< 0.1

Product classified as photochemically reactive per SCAQMD Rule 102.

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:

- BIS(2-ETHYLHEXYL)PHTHALATE
- XYLENE
- BARIUM
- ETHYLBENZENE
- CADMIUM
- VINYL ACETATE

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

2. PHYSICAL DATA

BOILING POINT:..... > 310.00 F
VAPOR PRESSURE:..... < 10.0000 mmHg
VAPOR DENSITY:..... > 1.00 Air=1
EVAPORATION RATE:..... < 1.00 BuOAc=1
SOLUBILITY IN WATER:..... slight
SPECIFIC GRAVITY:..... 1.600 Water=1 ASTM
PERCENT VOLATILE:..... 35.00 - 45.00 % by wt
pH:..... N/A
VISCOSITY:..... 9000.0 - 15000.0 centipoise ASTM
MELTING POINT:..... N/D

APPEARANCE AND ODOR:
liquid, white, solvent odor

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:..... ca. 111.00 F TCC
FLAMMABLE LIMITS - LEL:..... ca. 0.80 %
FLAMMABLE LIMITS - UEL:..... ca. 8.60 %
AUTOIGNITION TEMPERATURE:..... N/D

EXTINGUISHING MEDIA:
Water spray, Carbon dioxide, Dry chemical, Alcohol-type 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:
Not determined.

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

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

4. REACTIVITY DATA (continued)

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:

Strong Oxidizing Agents

Especially avoid nitric acid.

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. Evacuate unprotected personnel from hazard area. Cover with absorbent material. Collect using non-sparking tools. Clean up residue with an appropriate organic solvent. Read and follow safety precautions on the solvent label and MSDS. Place in an approved metal container. Seal the container.

RECOMMENDED DISPOSAL:

Incinerate in a permitted hazardous waste incinerator. Combustion products will include HCl.

ENVIRONMENTAL DATA:

Not determined.

REGULATORY INFORMATION:

Volatile Organic Compounds: < 720.00 gms/liter.
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) D005 (Barium) D006 (Cadmium)

EPCRA HAZARD CLASS:

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

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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:

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, polyethylene/ethylene vinyl alcohol, polyvinyl 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. Provide sufficient ventilation to maintain emissions below recommended exposure limits. If exhaust ventilation is not adequate, use appropriate respiratory protection.

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, 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.

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 7. PRECAUTIONARY INFORMATION (continued)

RECOMMENDED STORAGE:

Store away from heat. Keep container closed when not in use. 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.

EXPOSURE LIMITS

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*
TITANIUM DIOXIDE.....	10	MG/M3	TWA	ACGIH	
TITANIUM DIOXIDE.....	10	MG/M3	TWA	OSHAV	
		AS DUST			
		OSHA VACATED PEL			
TITANIUM DIOXIDE.....	15	MG/M3	TWA	OSHA	
		AS TOTAL DUST			
TITANIUM DIOXIDE.....	5	MG/M3	TWA	CMRG	
		AS RESPIRABLE DUST			
CYCLOHEXANONE.....	25	PPM	TWA	ACGIH	Y
CYCLOHEXANONE.....	25	PPM	TWA	OSHAV	Y
		OSHA VACATED PEL			
CYCLOHEXANONE.....	50	PPM	TWA	OSHA	
ISOPHORONE.....	5	PPM	CEIL	ACGIH	
ISOPHORONE.....	4	PPM	TWA	OSHAV	
		OSHA VACATED PEL			
ISOPHORONE.....	25	PPM	TWA	OSHA	
VINYL CHLORIDE-VINYL ACETATE POLYMER.....	NONE	NONE	NONE	NONE	
SILICA.....	3	MG/M3	TWA	CMRG	
		AS RESPIRABLE DUST			
ALUMINA TRIHYDRATE.....	NONE	NONE	NONE	NONE	
BIS(2-ETHYLHEXYL)PHTHALATE.....	5	MG/M3	TWA	ACGIH	
BIS(2-ETHYLHEXYL)PHTHALATE.....	10	MG/M3	STEL	ACGIH	
BIS(2-ETHYLHEXYL)PHTHALATE.....	5	MG/M3	TWA	OSHA	
BIS(2-ETHYLHEXYL)PHTHALATE.....	10	MG/M3	STEL	OSHA	
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM).....	17	PPM	TWA	CMRG	
XYLENE.....	100	PPM	TWA	ACGIH	
XYLENE.....	150	PPM	STEL	ACGIH	
XYLENE.....	100	PPM	TWA	OSHA	
XYLENE.....	150	PPM	STEL	OSHA	
BARIUM.....	0.5	MG/M3	TWA	ACGIH	
BARIUM.....	0.5	MG/M3	TWA	OSHA	

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EXPOSURE LIMITS (continued)

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*
ETHYLBENZENE.....	100	PPM	TWA	ACGIH	
ETHYLBENZENE.....	125	PPM	STEL	ACGIH	
ETHYLBENZENE.....	100	PPM	TWA	OSHA	
ETHYLBENZENE.....	125	PPM	STEL	OSHA	
CADMIUM.....	0.01	MG/M3	TWA	ACGIH	
		as Cd dust/particle			
CADMIUM.....	0.002	MG/M3	TWA	ACGIH	
		as Cd RESPIRABLE			
VINYL ACETATE.....	10	PPM	TWA	ACGIH	
VINYL ACETATE.....	15	PPM	STEL	ACGIH	
VINYL ACETATE.....	10	PPM	TWA	OSHA	
VINYL ACETATE.....	20	PPM	STEL	OSHA	
VINYL ACETATE.....	5	PPM	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:

- ACGIH: American Conference of Governmental Industrial Hygienists
- 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:

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:

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 similar to those caused by inhalation and/or ingestion.

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)

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

Prolonged or repeated overexposure, above recommended guidelines, may cause:

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.

Lung Damage: signs/symptoms can include coughing, difficulty breathing, wheezing, tightness in chest, congestion, and coughing up of blood.

IF SWALLOWED:

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

Ingestion may cause:

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.

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.

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. (117-81-7) (NTP anticipated human carcinogen, Calif. Proposition 65)

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

8. HEALTH HAZARD DATA (continued)

WARNING: Contains a chemical which can cause cancer. (7440-43-9) (NTP known human carcinogen, IARC human carcinogen 1, OSHA listed carcinogen, ACGIH suspected human carcinogen A2, Calif. Proposition 65)

SECTION CHANGE DATES

PRECAUTIONARY INFO. SECTION CHANGED SINCE August 10, 1999 ISSUE

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