3M Center St. Paul, MN 55144-1000 612 733 1110

MATERIAL SAFETY DATA SHEET



DIVISION: PRINTING AND PUBLISHING SYSTEMS

TRADE NAME:

ONYX(TM) DEVELOPER CONCENTRATE

77-9802-6936-7 00-51128-04189-5 3M ID NUMBER/U.P.C.: XP-1414-8373-3 77-9803-1539-2 00-51128-22316-1 77-9803-1866-9 00-51128-23131-9

ISSUED: FEBRUARY 10, 1995 SUPERSEDES: DECEMBER 15, 1993

DOCUMENT: 10-3254-9

1. INGREDIENT	C.A.S. NO.	PERCENT	
WATERSODIUM SULFITEPOTASSIUM HYDROXIDESODIUM THIOCYANATE	7757-83-7 1310-58-3 540-72-7	80.0 - 5.0 - 1.0 - 1.0 -	90.0 10.0 5.0 5.0
POTASSIUM SULFITE	123-31-9	1.0 - 1.0 - <	5.0 5.0 1.0

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: HYDROQUINONE

2. PHYSICAL DATA

100 C BOILING POINT:.... 17.5 mmHg at 68 deg F VAPOR PRESSURE:.... VAPOR DENSITY: Same as water SOLUBILITY IN WATER:SP. GRAVITY: Soluble 1.15 80.0 N/A N/A pH: 13.6 VISCOSITY: 5.0 cps VISCOSITY: MELTING POINT..... N/D APPEARANCE AND ODOR: Liquid, pale yellow, no odor

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:.. N/A N/A N/A N/A EXTINGUISHING MEDIA:

Water spray, Carbon dioxide, Dr. SPECIAL FIRE FIGHTING PROCEDURES: Dry chemical, Alcohol-type foam

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

MSDS: ONYX(TM) DEVELOPER CONCENTRATE

FEBRUARY 10, 1995

PAGE: 2 of 5

3. FIRE AND EXPLOSION HAZARD DATA (continued)

protective covering for exposed areas of the head. UNUSUAL FIRE AND EXPLOSION HAZARDS:

See Hazardous Decomposition section for products of combustion. NFPA-HAZARD-CODES: HEALTH 2 FIRE 0 REACTIVITY 1

UNUSUAL REACTION HAZARD: none

4. REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY - MATERIALS TO AVOID:
Strong Acids, Strong Oxidizing Agents, Heat.
HAZARDOUS POLYMERIZATION: Will Not Occur

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon Monoxide and Carbon Dioxide, Oxides of Nitrogen, Oxides of Sulfur, Hydrogen Cyanide, Hydrogen Sulfide.

5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:

Observe precautions from other sections. Collect spilled material. Place in a polyethylene-lined metal container. Disposal alternative: Dilute in a large excess of water. Carefully, and with stirring, add appropriate dilute acid such as sulfamic acid or vinegar. Confirm neutrality.

RECOMMENDED DISPOSAL:

Discharge neutralized waste product to a wastewater treatment system. Incinerate in a permitted hazardous waste incinerator in the presence of a combustible material.

ENVIRONMENTAL DATA:

No data available.

REGULATORY INFORMATION:

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 = D002 (Corrosive)

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

MSDS: ONYX(TM) DEVELOPER CONCENTRATE

FEBRUARY 10, 1995

PAGE: 3 of 5

6. SUGGESTED FIRST AID

(continued)

contaminated clothing. If irritation persists, call a physician. Wash contaminated clothing before reuse.

INHALATION:

If signs/symptoms occur, remove person to fresh air. If signs/symptoms continue, call a physician.

IF SWALLOWED:

If swallowed, do NOT induce vomiting. Give victim two glasses of water. Call a physician immediately. 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. Use one or more of the following personal protection items as necessary to prevent skin contact: apron, coveralls.

VENTILATION PROTECTION:

Use with adequate dilution ventilation.

RESPIRATORY PROTECTION:

Avoid breathing of vapors, mists or spray.

PREVENTION OF ACCIDENTAL INGESTION:

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

RECOMMENDED STORAGE:

Store in a cool place. Store away from acids. Keep out of the reach of children.

FIRE AND EXPLOSION AVOIDANCE:

Keep container tightly closed.

EXPOSURE	TTMTTC



MSDS: ONYX(TM) DEVELOPER CONCENTRATE

FEBRUARY 10, 1995

PAGE: 4 of 5

7. PRECAUTIONARY INFORMATION (continued)

	EXPOSURE LIMITS							
	INGREDIENTS	VALUE	UNIT	TYPE	AUTH	SKIN*		
•	HYDROQUINONE	2	mg/m3	TWA	ACGIH			
	HYDROQUINONE	2	mg/m3	TWA				
	SODIUM HYDROXIDE	2	mg/m3		ACGIH			
	SODIUM HYDROXIDE	2	mg/m3	CEIL	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 Hygine Assoc. Workplace Environmental Exposure Level C
- OSHA: Occupational Safety and Health Administration
- NONE: None Established

8. HEALTH HAZARD DATA

EYE CONTACT:

Chemical Related Eye Burns (chemical corrosivity): signs/symptoms can include cloudy appearance of the cornea, chemical burns, pain, tearing, ulcers, impaired vision or loss of vision.

SKIN CONTACT:

Moderate Skin Irritation: signs/symptoms can include redness, swelling, itching, and dryness.

Prolonged or repeated exposure may cause:

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

Skin Depigmentation: signs/symptoms are loss of pigment from the skin.

INHALATION:

Asthmatic-like Reaction: signs/symptoms can include difficulty breathing, wheezing, tightness of chest, and respiratory failure.

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

IF SWALLOWED:

Damage to Gastrointestinal Tissues: signs/symptoms can include pain, vomiting, nausea, abdominal tenderness, burns of mouth, difficulty swallowing, blood in vomitus, blood in feces, and ulceration.



MSDS: ONYX(TM) DEVELOPER CONCENTRATE FEBRUARY 10. 1995

PAGE: 5 of 5

8. HEALTH HAZARD DATA

(continued)

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

Asthmatic-like Reaction: signs/symptoms can include difficulty breathing, wheezing, tightness of chest, and respiratory failure.

Burns of the Oral Tissues: signs/symptoms can include pain, burns of tongue and inside of mouth, redness and tissue loss.

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.

Blood disorders: signs/symptoms can include prolonged weakness and fatigue.

SECTION CHANGE DATES

HEADING

SECTION CHANGED SINCE DECEMBER 15, 1993 ISSUE

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

The information on this Data Sheet represents our current data and best opinion as to the proper use in handling of this material under normal conditions. Any use of the material which is not in conformance with this Data Sheet or which involves using the material in combination with any other material or any other process is the responsibility of the user.