MATERIAL SAFETY DATA SHEET

DIVISION: PRINTING AND PUBLISHING SYSTEMS
TRADE NAME: ONYX (TM) IMAGE DELETION FLUID (NEW AND IMPROVED)

3M ID NUMBER/U.P.C.: 77-9803-7918-2 00-51128-34039-9 77-9803-8163-4 00-51128-34608-2
77-9803-8545-2 00-51128-35902-0

ISSUED: FEBRUARY 10, 1995
SUPERSEDES: AUGUST 5, 1993
DOCUMENT: 05-3893-4

1. INGREDIENT

<table>
<thead>
<tr>
<th>C.A.S. NO.</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATER</td>
<td>7732-18-5</td>
</tr>
<tr>
<td>ISOPROPYL ALCOHOL</td>
<td>67-63-0</td>
</tr>
<tr>
<td>POTASSIUM IODIDE</td>
<td>7681-11-0</td>
</tr>
<tr>
<td>Ethoxylated tetramethyldicycenediol</td>
<td>9014-85-1</td>
</tr>
<tr>
<td>IODINE</td>
<td>7553-56-2</td>
</tr>
</tbody>
</table>

2. PHYSICAL DATA

<table>
<thead>
<tr>
<th>PROPERTIES</th>
<th>VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOILING POINT</td>
<td>80 C</td>
</tr>
<tr>
<td>VAPOR PRESSURE at 68 deg F</td>
<td>&lt; 34 mmHg</td>
</tr>
<tr>
<td>VAPOR DENSITY</td>
<td>N/D</td>
</tr>
<tr>
<td>EVAPORATION RATE</td>
<td>&gt; 1.0</td>
</tr>
<tr>
<td>SOLUBILITY IN WATER</td>
<td>Soluble</td>
</tr>
<tr>
<td>SP. GRAVITY</td>
<td>1.041 Water = 1</td>
</tr>
<tr>
<td>PERCENT VOLATILE</td>
<td>ca. 68 %</td>
</tr>
<tr>
<td>VOLATILE ORGANICS</td>
<td>N/D</td>
</tr>
<tr>
<td>VOC LESS H2O &amp; EXEMPT SOLVENT</td>
<td>N/D</td>
</tr>
<tr>
<td>pH</td>
<td>3.5</td>
</tr>
<tr>
<td>VISCOSITY ca. 10 CPS</td>
<td>N/D</td>
</tr>
<tr>
<td>MELTING POINT</td>
<td>Liquid, Brown Color - Alcohol Odor</td>
</tr>
</tbody>
</table>

3. FIRE AND EXPLOSION HAZARD DATA

<table>
<thead>
<tr>
<th>DATA</th>
<th>VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLASH POINT</td>
<td>70 F T.C.C.</td>
</tr>
<tr>
<td>FLAMMABLE LIMITS - LEL</td>
<td>N/D</td>
</tr>
<tr>
<td>FLAMMABLE LIMITS -UEL</td>
<td>N/D</td>
</tr>
<tr>
<td>AUTOIGNITION TEMPERATURE</td>
<td>N/D</td>
</tr>
<tr>
<td>EXTINGUISHING MEDIA</td>
<td>Water spray, Carbon dioxide, Dry chemical, Alcohol-type foam</td>
</tr>
</tbody>
</table>

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:
No unusual fire or explosion hazards are anticipated.

NFPA-HAZARD-CODES: HEALTH 2 FIRE 3 REACTIVITY 0
UNUSUAL REACTION HAZARD: none

Abbreviations: N/D - Not Determined  N/A - Not Applicable
4. REACTIVITY DATA

STABILITY: Stable
INCOMPATIBILITY - MATERIALS TO AVOID:
None known.
HAZARDOUS POLYMERIZATION: Will Not Occur
HAZARDOUS DECOMPOSITION PRODUCTS:
Carbon Monoxide and Carbon Dioxide.

5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:

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

ENVIRONMENTAL DATA:
No data available.

REGULATORY INFORMATION:
Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste Number = D001 (Ignitible)

EPCRA 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.

SKIN CONTACT:
Flush skin with large amounts of water. If irritation persists, get medical attention.

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

IF SWALLOWED:
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.

Abbreviations:  N/D - Not Determined  N/A - Not Applicable
7. PRECAUTIONARY INFORMATION (continued)

SKIN PROTECTION:
Avoid prolonged or repeated skin contact. Wear appropriate gloves when handling this material.

VENTILATION PROTECTION:
Use with adequate dilution ventilation. 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.

PREVENTION OF ACCIDENTAL INGESTION:
Wash hands after handling and before eating. Do not ingest.

RECOMMENDED STORAGE:
Store at temperatures below 120 degrees F (49 degrees C). Keep container in well-ventilated area. Keep out of the reach of children.

FIRE AND EXPLOSION AVOIDANCE:
Flammable liquid and vapor. Keep away from heat, sparks, open flame, and other sources of ignition. Avoid static discharge.

<table>
<thead>
<tr>
<th>INGREDIENTS</th>
<th>VALUE</th>
<th>UNIT</th>
<th>TYPE</th>
<th>AUTH</th>
<th>SKIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATER</td>
<td>NONE</td>
<td></td>
<td>NONE</td>
<td>NONE</td>
<td>NONE</td>
</tr>
<tr>
<td>ISOPROPYL ALCOHOL</td>
<td>400</td>
<td>ppm</td>
<td>TWA</td>
<td>ACGIH</td>
<td></td>
</tr>
<tr>
<td>ISOPROPYL ALCOHOL</td>
<td>500</td>
<td>ppm</td>
<td>STEL</td>
<td>ACGIH</td>
<td></td>
</tr>
<tr>
<td>ISOPROPYL ALCOHOL</td>
<td>400</td>
<td>ppm</td>
<td>TWA</td>
<td>OSHA</td>
<td></td>
</tr>
<tr>
<td>ISOPROPYL ALCOHOL</td>
<td>500</td>
<td>ppm</td>
<td>STEL</td>
<td>OSHA</td>
<td></td>
</tr>
<tr>
<td>POTASSIUM IODIDE</td>
<td>NONE</td>
<td></td>
<td>NONE</td>
<td>NONE</td>
<td>NONE</td>
</tr>
<tr>
<td>Ethoxyated tetramethyldecoxial</td>
<td>NONE</td>
<td>ppm</td>
<td>CEIL</td>
<td>ACGIH</td>
<td></td>
</tr>
<tr>
<td>IODINE</td>
<td>0.1</td>
<td>ppm</td>
<td>CEIL</td>
<td>OSHA</td>
<td></td>
</tr>
</tbody>
</table>

* 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 Hygiene Assoc. Workplace Environmental Exposure Level
- OSHA: Occupational Safety and Health Administration
- NONE: None Established

Abbreviations: N/D - Not Determined N/A - Not Applicable
8. HEALTH HAZARD DATA

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

SKIN CONTACT:
Mild Skin Irritation: signs/symptoms can include redness, swelling, and itching.

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.

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

IF SWALLOWED:
Illness may occur after a single swallowing of relatively large quantities of this material.

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

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

Heart Effects: signs/symptoms can include arrhythmia, heart attack and death.

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.

SECTION CHANGE DATES

HEADING
SECTION CHANGED SINCE AUGUST 5, 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.