Material Safety Data Sheet

Section I - Identity

Manufacturer's Name: KOH-I-NOOR RAPIDOGRAPH, INC
Address (Number, Street, City, State, and ZIP Code): 1003 North Street, Pro. Box 68, Bloomsbury, NJ 08804

Emergency Telephone Number: (201) 479-4124
Telephone Number for Information: (201) 479-4124
Date Prepared: February 24, 1989
Signature of Preparer (Optional): Alan A. Pomerance

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s)): OSHA PEL ACGIH TLV Other Limits Recommended % (optional)
- Isopropyl Alcohol (67-63-0): 400 ppm 400 ppm 1
- Morpholine (110-91-8): 20 ppm 20 ppm <2
- Water: 75

Section III - Physical/Chemical Characteristics

Boiling Point: 210°F
Specific Gravity (H₂O = 1): 1.07
Vapor Pressure (mm Hg): Unknown
Melt Point: 23-27°F
Vapor Density (AIR = 1): Unknown
Evaporation Rate (Buoy: Air = 1): Like water
Solubility in Water: Miscible
Appearance and Odor: Black-liquid-mild odor

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used): 174°F, ASTM-056
Flammability Limits: N/A
LEL UEL
Extinguishing Media: This ink will not burn or support combustion
Special Fire Fighting Procedures: None
Unusual Fire and Explosion Hazards: None

(Reduce locally)
**Section V — Reactivity Data**

<table>
<thead>
<tr>
<th>Stability</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstable</td>
<td>X</td>
</tr>
<tr>
<td>Stable</td>
<td></td>
</tr>
</tbody>
</table>

**Incompatibility (Materials to Avoid)**

None

**Hazardous Decomposition or Byproducts**

None

**Polymerization**

<table>
<thead>
<tr>
<th>May Happen</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will Not Occur</td>
<td>X</td>
</tr>
</tbody>
</table>

**Section VI — Health Hazard Data**

<table>
<thead>
<tr>
<th>Route(s) of Entry</th>
<th>Inhalation?</th>
<th>Skin?</th>
<th>Ingestion?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td></td>
<td>LD$_{50}$ (rats): 5g/Kg</td>
</tr>
</tbody>
</table>

**Health Hazards (Acute and Chronic)**

May be irritating to skin, eyes and respiratory system. Morpholine has produced kidney damage in animals. Isopropanol has caused inflammation and burns to the cornea.

**Carcinogenicity**

None

**NTP**

IARC Monographs?

OSHA Regulated?

**Signs and Symptoms of Exposure**

None expected for normal use, abuse may result in eye irritation. Headache, dizziness and dermatitis are possible if TLV's are exceeded.

**Medical Conditions Generally Aggravated by Exposure**

None expected

**Emergency and First Aid Procedures**

Salts into eye should be flushed with large amounts of water; skin may be washed with soap and water; drink 1 or 2 glasses of water to dilute ingested ink, get medical attention.

**Section VII — Precautions for Safe Handling and Use**

**Steps to Be Taken if Material Is Released or Spilled**

Wash with soap and water.

**Waste Disposal Method**

In accordance with federal, state, and local regulations

**Precautions to Be Taken in Handling and Storing**

Keep from Freezing

**Other Precautions**

Store at room temperature

**Section VIII — Control Measures**

**Respiratory Protection (Specify Type)**

None required

**Ventilation**

<table>
<thead>
<tr>
<th>Local Exhaust</th>
<th>Mechanical (General)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not needed</td>
<td>Other</td>
</tr>
</tbody>
</table>

**Protective Gloves**

Sufficient

**Eye Protection**

Not required

**Other Protective Clothing or Equipment**

Not required

**Non-Toxic Practice**

Wash hands before eating and smoking
Material Safety Data Sheet

IDENTITY (As Used on Label and List)

Section I

Manufacturer's Name
KOH-I-NOOR HARTMUTH AG.

Address (Number, Street, City, State, and ZIP Code)
Liechtensteinstraße 155
A-1091 Vienna 9/Austria

Emergency Telephone Number
0222/34-13-81

Telephone Number for Information
0222/34813-81

Date Prepared
Vienna, August 29th, 1986

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s)) | OSHA PEL | ACGIH TLV | Other Limits Recommended | % (optional)
---|---|---|---|---
192/1 = 30% Clay, 70% Charcoal | | | | 
192/2 = 35% Clay, 65% Charcoal | | | | 
192/3 = 38% Clay, 62% Charcoal | | | | 
192/4 = 42% Clay, 58% Charcoal | | | | 
192/5 = 50% Clay, 50% Charcoal | | | | 

Section III — Physical/Chemical Characteristics

Boiling Point
Inflame: approx. 400°C

Specific Gravity (H₂O = 1)
1.28

Vapor Pressure (mm Hg)
N.A.

Melting Point
N.A.

Vapor Density (AIR = 1)
N.A.

Evaporation Rate
Butyl Acetate = 1
N.A.

Solubility in Water
unsoluble

Appearance and Odor
blackness, odourless

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used)
N.A.

Flammable Limits
N.A.

LEL
N.A.

UEL
N.A.

Extinguishing Media
N.A.

Special Fire Fighting Procedures
N.A.

Unusual Fire and Explosion Hazards
N.A.
Section V — Reactivity Data

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<td>X</td>
</tr>
</tbody>
</table>

Incompatibility (Materials to Avoid) None

Hazardous Decomposition or Byproducts None

Hazardous Polymerization
- May Occur
- Will Not Occur X

Section VI — Health Hazard Data

Route(s) of Entry: None
Inhalation? Skin? Ingestion?

Health Hazards (Acute and Chronic) None expected

Carcinogenicity: No
NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure None expected

Medical Conditions Generally Aggravated by Exposure None

Emergency and First Aid Procedures Not normally required, consult physician.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled Sweep up.

Waste Disposal Method Place in trash receptacle.

Precautions to Be Taken in Handling and Storing None

Other Precautions None

Section VIII — Control Measures

Respiratory Protection (Specify Type) None required

Ventilation
- Local Exhaust Special
- Mechanical (General) Other

Protective Gloves Not required Eye Protection Not required

Other Protective Clothing or Equipment None

Work/Hygienic Practices Standard