MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

CATALOG NUMBER: 836
PRODUCT NAME: Biphenylcarbazone Reagent
CAS. NO.: Not applicable
CHEMICAL NAME: Not applicable
FORMULA: Not applicable
CHEMICAL FAMILY: Not applicable

II. INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENTS</th>
<th>THA</th>
<th>CAS NUMBER</th>
<th>NATURE OF HAZARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phthalic Acid</td>
<td>None listed</td>
<td>88-94-3</td>
<td>May cause eye burns, &amp; skin irritation</td>
</tr>
<tr>
<td>Potassium Acid Phthalate ACS Grade</td>
<td>None listed</td>
<td>877-24-7</td>
<td>May cause irritation</td>
</tr>
<tr>
<td>Sya-Biphenylcarbazone</td>
<td>None listed</td>
<td>538-42-5</td>
<td>Toxicity unknown; may cause irritation</td>
</tr>
</tbody>
</table>

III. PHYSICAL DATA

STATE: solid
APPEARANCE: Light yellow or pink
ODOUR: Not determined
SOLUBILITY IN: WATER: Soluble, ACID: Soluble, OTHER: Not determined
BOILING PT.: NA
MELTING PT.: 117°C
SPECIFIC GRAVITY: 1.40
pH of 5% soln: 3.1
VAPOR PRESSURE: Not applicable
VAPOR DENSITY (air=1): MA
EVAPORATION RATE: NA
METAL CORROSION: ALUMINUM: No
STEEL: No
STABILITY: Stable

STORAGE PRECAUTIONS: Store in a cool, dry place.

IV. FIRE, EXPLOSION HAZARD AND REACTIVITY DATA

FLASH PT.: Not applicable
METHOD: NA
FLAMMABILITY LIMITS: LOWER: NA
UPPER: NA
SUSCEPTIBILITY TO SPONTANEOUS HEATING: None
SHOCK SENSITIVITY: None
AUTOIGNITION PT.: NO

EXTinguISHING MEDIA: water, air or spray

FIRE/EXPLOSION HAZARDS: May explode if heated to decomposition

HAZARDOUS DegaUS. PRODUCTS: May evolve phthalic anhydride, explosive dust

IDENTIFIers: NA
NFPA CODES: Health: 1
Flammability: 1
Reactivity: 1

CONDITIONS TO AVOID: Heat; contact with sodium nitrile or nitric acid

V. HEALTH HAZARD DATA

THIS PRODUCT IS corrosive to eyes, irritating to skin and respiratory tract.

ACUTE TOXICITY: Moderately toxic
ROUTE OF MOST DETRIMENTAL EXPOSURE: Not determined
TARGET ORGANS: Not determined

CHRONIC TOXICITY: Not determined
ROUTE OF MOST DETRIMENTAL EXPOSURE: Not determined
TARGET ORGANS: Not determined

LONG-TERM EFFECTS: Not applicable
ROUTE OF EXPOSURE: Not applicable
TARGET ORGANS: Not applicable

OVEREXPOSURE: May burn eyes, irritate skin and mucous membranes
VI. PRECAUTIONARY MEASURES

Wash thoroughly after handling. Avoid contact with eyes, skin and clothing. Do not breathe chemicals.

PROTECTIVE EQUIPMENT: adequate ventilation, safety glasses, disposable gloves

VII. FIRST AID

EYE AND SKIN CONTACT: Immediately flush eyes with water for 15 minutes. Call physician. Flush skin with plenty of water.

INGESTION: Do not induce vomiting. Give large quantities of water and at least 1 ounce of milk of magnesia in 1 ounce of water. Call physician immediately.

INHALATION: Remove to fresh air.

VIII. SPILL AND DISPOSAL PROCEDURES

IN CASE OF SPILL OR RELEASE: Cover contaminated surfaces with soda ash or sodium bicarbonate. Mix and add water if necessary. Scoop up the slurry and wash the neutral waste down the drain with excess water. Wash the site with soda ash solution.

DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.

IX. TRANSPORTATION DATA

PROPER SHIPPING NAME: Not Currently Regulated

HAZARD CLASS: Not applicable

DATE: 01/04/87

CHANGE No.: 5902

X. REFERENCES

1) In-house information
2) Technical judgment
3)
4)
5)
6)
7)
8)

E. HACH CO. 1987

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