1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer............: EM SCIENCE
A Division of EM Industries
P.O. Box 70
480 Democrat Road
Gibbstown, N.J. 08027

Preparation Date.: 3/6/98

Information Phone Number.: 856-423-6300
Hours: Mon. to Fri. 8:30-5

Chemtrec Emergency Number: 800-424-9300
Hours: 24 hrs a day

Catalog Number(s):
SX0931

Product Name:
Starch Indicator 1% W/V with Mercuric Iodide

Synonyms:
Mixture

Chemical Family:
Mixture

Formula:
Mixture

Molecular Weight:.
N/A

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>Appr %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starch</td>
<td>9005-25-8</td>
<td>1.0%</td>
</tr>
<tr>
<td>Mercuric Iodide</td>
<td>7774-29-0</td>
<td>0.005%</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>99%</td>
</tr>
</tbody>
</table>

Approx. % as wt/vol

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
WARNING: This product contains a chemical(s) known to the State of California to cause birth defects or other reproductive
Appearance:
Translucent white liquid

POTENTIAL HEALTH EFFECTS (ACUTE AND CHRONIC)

Symptoms of Exposure:
Data on the toxicity of this preparation is not available. Handling care generally in keeping with safe laboratory practices is recommended.

Medical Cond. Aggravated by Exposure:
Data not available.

Routes of Entry:
Inhalation, ingestion or skin contact.

Carcinogenicity:
The material is not listed (IARC, NTP, OSHA) as cancer causing agent.

4. FIRST AID MEASURES

Emergency First Aid:
GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE.
Skin: Wash thoroughly with soap and water.
Eyes: Immediately flush thoroughly with water for at least 15 minutes.
Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion: Get immediate medical attention.

5. FIRE FIGHTING MEASURES

Flash Point (F): None
Flammable Limits LEL (%): N/A
Flammable Limits UEL (%): N/A
Extinguishing Media:
Use any suitable for adjacent material.

Fire Fighting Procedures:
Wear self-contained breathing apparatus.

Fire & Explosion Hazards:
Thermal decomposition produces toxic fumes.

6. ACCIDENTAL RELEASE MEASURES

Spill Response:
Evacuate the area of all unnecessary personnel. Wear suitable protective equipment listed under Exposure / Personal Protection. Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards. Contain the release and eliminate its source, if this can be done without risk. Take up and containerize for proper disposal as described under Disposal. Comply with Federal, State, and local regulations on reporting releases. Refer to Regulatory Information for reportable quantity and other regulatory data.

7. HANDLING AND STORAGE

Handling & Storage:
Store in a cool, dry area. Do not breathe solution mist. Do not get in eyes, on skin, or on clothing.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT:
Ventilation, Respiratory Protection, Protective Clothing, Eye Protection:
Material should be handled or transferred in an approved fume hood or with adequate ventilation. Protective gloves (Natural rubber, Neoprene, PVC or equivalent) should be worn to prevent skin contact Safety glasses with side shields should be worn at all times.

Work/Hygenic Practices:
Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available.

EXPOSURE GUIDELINES

OSHA - PEL:

<table>
<thead>
<tr>
<th>Component</th>
<th>TWA PPM</th>
<th>TWA MG/M3</th>
<th>STEL PPM</th>
<th>STEL MG/M3</th>
<th>CL PPM</th>
<th>CL MG/M3</th>
<th>Skin</th>
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<tr>
<td>Starch</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Mercuric Iodide</td>
<td></td>
<td></td>
<td>0.1</td>
<td></td>
<td></td>
<td></td>
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ACGIH - TLV:

<table>
<thead>
<tr>
<th>Component</th>
<th>TWA PPM</th>
<th>TWA MG/M3</th>
<th>STEL PPM</th>
<th>STEL MG/M3</th>
<th>CL PPM</th>
<th>CL MG/M3</th>
<th>Skin</th>
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<tbody>
<tr>
<td>Starch</td>
<td>10</td>
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<td>Mercuric Iodide</td>
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</table>

If there are no exposure limit numbers listed in the Exposure Guidelines chart, this indicates that no OSHA or ACGIH exposure limits have been established.

9. PHYSICAL AND CHEMICAL PROPERTIES
Boiling Point (C 760 mmHg) : N/A
Melting Point (C) : N/A
Specific Gravity (H<sub>2</sub>O = 1) : N/A
Vapor Pressure (mm Hg) : N/A
Percent Volatile by vol (%) : N/A
Vapor Density (Air = 1) : N/A
Evaporation Rate (BuAc = 1): N/A
Solubility in Water (%) : Soluble
Appearance :
Translucent white liquid

10. STABILITY AND REACTIVITY

Stability: Yes

Hazardous Polymerization:
Does not occur

Hazardous Decomposition:
CO<sub>x</sub>, Hg, I<sub>2</sub>

Conditions to Avoid:
None

Materials To Avoid:

( ) Water
( ) Acids
( ) Bases
( ) Corrosives
(X) Oxidizers
(X) Other: Sodium, Potassium

11. TOXICOLOGICAL INFORMATION

Toxicity Data

None established

Toxicological Findings:
None
Cited in Registry of Toxic Effects of Chemical Substances (RTECS)

12. DISPOSAL CONSIDERATIONS

EPA Waste Numbers: D009
Treatment:
Specified Technology - Contact your local permitted waste disposal site (TSD) for permissible treatment sites. ALWAYS CONTACT A PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.

13. TRANSPORT INFORMATION

DOT Proper Shipping Name: 
non-regulated

DOT ID Number :
none

14. REGULATORY INFORMATION

TSCA Statement:
This product is a "Mixture". The CAS numbers of all components are listed on the TSCA Inventory.

<table>
<thead>
<tr>
<th>Component</th>
<th>SARA EHS (302)</th>
<th>SARA EHS TPQ (lbs)</th>
<th>CERCLA RQ (lbs)</th>
</tr>
</thead>
<tbody>
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<td>Starch</td>
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<tr>
<td>Mercuric Iodide</td>
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<td>Water</td>
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<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA Floor List</th>
<th>SARA 313</th>
<th>DeMinimis for SARA 313 (§)</th>
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<td>Y</td>
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<td>Water</td>
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</tr>
</tbody>
</table>

If there is no information listed on the regulatory information chart, this indicates that the chemical is not covered by the specific regulation listed.

15. OTHER INFORMATION

Comments: 
None
NFPA Hazard Ratings:

Health : 1
Flammability : 0
Reactivity : 0
Special Hazards :

Revision History: 3/6/98

| = Revised Section
N/A = Not Available
N/E = None Established

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