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.: 9/8/97

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):

298  NX0260  NX0265

Product Name:
Neutral Red

Synonyms:
Basic Red 5, C.I. No. 50040

Chemical Family:
Azine Dye

Formula:
C_{15}H_{17}ClN_{4}

Molecular Weight.:
288.78

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>Appr %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral Red</td>
<td>553-24-2</td>
<td>100%</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Handling care generally in keeping with safe laboratory practices is recommended.

Appearance:
Dark green crystalline powder
POTENTIAL HEALTH EFFECTS (ACUTE AND CHRONIC)

Symptoms of Exposure:
No acute effects noted in available literature. Tests on laboratory animals indicate material may produce adverse mutagenic effects. Handling care generally in keeping with safe laboratory practices is recommended.

Medical Cond. Aggravated by Exposure:
Data not available.

Routes of Entry:
Inhalation, ingestion

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: If conscious, drink water and induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flash Point (F): N/A
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
7. HANDLING AND STORAGE

Handling & Storage:
Keep container closed. Store at controlled room temperature. Do not breathe dust. 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 should be worn to prevent skin contact (Butyl Rubber or equivalent). Safety glasses with side shields should be worn at all times.

Work/Hygienic 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</th>
<th>STEL</th>
<th>CL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral Red</td>
<td></td>
<td></td>
<td>Skin</td>
</tr>
</tbody>
</table>

ACGIH - TLV:

<table>
<thead>
<tr>
<th>Component</th>
<th>TWA</th>
<th>STEL</th>
<th>CL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral Red</td>
<td></td>
<td></td>
<td>Skin</td>
</tr>
</tbody>
</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) : 290C Decomposes
Specific Gravity (H₂O = 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:
Dark green crystalline powder

10. STABILITY AND REACTIVITY

Stability: Yes

Hazardous Polymerization:
Does not occur

Hazardous Decomposition:
NO\textsubscript{x}, CO\textsubscript{x}, HCl

Conditions to Avoid:
Extreme heat

Materials To Avoid:

( ) Water
( ) Acids
( ) Bases
( ) Corrosives
(X) Oxidizers
( ) Other:

11. TOXICOLOGICAL INFORMATION

Toxicity Data

ivn-rat LD50: 112 mg/kg

Toxicological Findings:
Tests on laboratory animals indicate material may produce adverse
mutagenic effects.
Cited in Registry of Toxic Effects of Chemical Substances (RTECS)

12. DISPOSAL CONSIDERATIONS

EPA Waste Numbers:

Treatment:
Material does not have an EPA Waste number and is not a listed waste, however consultation with a permitted waste
disposal site (TSD) should be accomplished.
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:
The CAS number of this product is 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>
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<tbody>
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<td>Neutral Red</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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<tbody>
<tr>
<td>Neutral Red</td>
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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:

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
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<tbody>
<tr>
<td>Health</td>
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<tr>
<td>Flammability</td>
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<tr>
<td>Reactivity</td>
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<tr>
<td>Special Hazards</td>
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</tbody>
</table>

Revision History: 3/7/86 10/27/87 8/16/90 3/1/91

| = Revised Section

N/A = Not Available

N/E = None Established
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