MATERIAL SAFETY DATA SHEET

EM SCIENCE

|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.: 10/25/96

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):

BX0207

Product Name:
1,2-Benzanthracene
Synonyms:
Benzo (A) Anthracene
Chemical Family:
Aromatic Hydrocarbon
Formula:
$C_{18}H_{12}$
Molecular Weight.:
228.29

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS #	Appr %
1,2-Benzanthracene	56-55-3	100%

|3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
SUSPECT CANCER HAZARD. MAY CAUSE CANCER.
HARMFUL IF INHALED, SWALLOWED OR ABSORBED THROUGH SKIN.
IRRITATING TO SKIN, EYES AND MUCOUS MEMBRANES.
MAY CAUSE DAMAGE TO KIDNEY, URETER, BLADDER.
WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

Appearance:
Light yellow powder

POTENTIAL HEALTH EFFECTS (ACUTE AND CHRONIC)

Symptoms of Exposure:
Harmful if inhaled, swallowed, or absorbed through the skin. Irritating on contact with skin, eyes or mucous membranes. May cause damage to kidney, ureter, bladder. Chronic exposure may cause alteration of genetic material.

Medical Cond. Aggravated by Exposure:
Urinary conditions

Routes of Entry:
Inhalation, ingestion or skin contact.

Carcinogenicity:
Suspected human carcinogenic substance. Suspect Cancer Hazard.
WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

4. FIRST AID MEASURES

Emergency First Aid:
GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE.
Skin: Immediately flush thoroughly with large amounts of 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.
Remove contaminated clothing and wash before reuse.

5. FIRE FIGHTING MEASURES

Flash Point (F): Noncombustible
Flammable Limits LEL (%): N/A
Flammable Limits UEL (%): N/A
Extinguishing Media:
Foam, Carbon dioxide, Water spray

Fire Fighting Procedures:
Wear self-contained breathing apparatus and protective clothing.

Fire & Explosion Hazards:
Thermal decomposition produces highly 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:
Keep container tightly closed. Store in a cool, dry, well-ventilated area. Do not breathe vapor or 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:
Respiratory Protection: If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your safety equipment supplier). Engineering and/or administrative controls should be implemented to reduce exposure. Material must be handled or transferred in an approved fume hood or with equivalent ventilation. Protective gloves must be worn to prevent skin contact (Viton or equivalent) Safety glasses with side shields must be worn at all times. Impervious protective clothing should be worn to prevent skin contact.

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

EXPOSURE GUIDELINES

OSHA - PEL:

	TWA		STEL		CL		
Component	PPM	MG/M3	PPM	MG/M3	PPM	MG/M3	Skin
1,2-Benzanthracene							

ACGIH - TLV:

	TWA		STEL		CL		
Component	PPM	MG/M3	PPM	MG/M3	PPM	MG/M3	Skin
1,2-Benzanthracene							

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

9. PHYSICAL AND CHEMCIAL PROPERTIES

Boiling Point (C 760 mmHg) : 435C Sublimes
Melting Point (C) : 160C
Specific Gravity (H_20 = 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 (%) : Insoluble
Appearance :
Light yellow powder

10. STABILITY AND REACTIVITY

Stability: Yes

Hazardous Polymerization:
Does not occur

Hazardous Decomposition:
CO_x

Conditions to Avoid:
None indicated

Materials To Avoid:

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( ) Water
(X) Acids
(X) Bases
( ) Corrosives
(X) Oxidizers
( ) Other:
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11. TOXICOLOGICAL INFORMATION

Toxicity Data

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ivn-mus LDLo: 10 mg/kg
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Toxicological Findings:
Tests on laboratory animals indicate material may produce adverse
mutagenic effects and cause tumors.
Cited in Registry of Toxic Effects of Chemical Substances (RTECS)

12. DISPOSAL CONSIDERATIONS

EPA Waste Numbers: U018

Treatment:
Specified Technology - Incineration to a level below TCA (Total Constituent Analyses) levels. Contact your local permitted waste disposal company (TSD) for permissible treatment site.
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:
Environmentally Hazardous Substance, Solid, n.o.s. (1,2-Benzanthracene)

DOT ID Number :
UN3077

14. REGULATORY INFORMATION

TSCA Statement:
The CAS number of this product is listed on the TSCA Inventory.

Component	SARA EHS (302)	SARA EHS TPQ (lbs)	CERCLA RQ (lbs)
1,2-Benzanthracene			10

Component	OSHA Floor List	SARA 313	DeMinimis for SARA 313 (%)
1,2-Benzanthracene	Y	Y	0.1

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:

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Health          : 3
Flammability    : 0
Reactivity      : 0
Special Hazards :
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Revision History: 1/1/84 7/18/87 1/24/91 3/1/91 11/19/93 3/10/95

| = Revised Section

N/A = Not Available

N/E = None Established

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