Material Safety Data Sheet
Phenanthrene

Section 1 - Chemical Product and Company Identification

MSDS Name: Phenanthrene
Catalog Numbers: 13009-0000, 13009-0050, 13009-0500, 13009-5000, 13010-0000, 13010-0050, 13010-0500, 13010-5000, 41710-0000, 41710-0050, 41710-0500
Synonyms: 

Company Identification: Acros Organics BVBA
Janssen Pharmaceuticaalaaan 3a
2440 Geel, Belgium

Company Identification: (USA) Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 800-ACROS-01
For information in Europe, call: +32 14 57 52 11
Emergency Number, Europe: +32 14 57 52 99
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300
CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS# Chemical Name: % EINECS#
85-01-8 Phenanthrene 98+% 201-581-5

Hazard Symbols: XN N

Risk Phrases: 22 40 50/53

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Harmful if swallowed. Limited evidence of a carcinogenic effect. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Potential Health Effects
Eye: May cause eye irritation.
Skin: May cause skin irritation. May be harmful if absorbed through the skin. May cause sensitization by skin contact.

Ingestion: Harmful if swallowed. May cause irritation of the digestive tract.

Inhalation: May cause respiratory tract irritation. May be harmful if inhaled.

Chronic: Limited evidence of a carcinogenic effect.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of soap and water.

Ingestion: Get medical aid. Wash mouth out with water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling: Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Avoid ingestion and inhalation.

Storage: Store in a cool, dry place. Store in a tightly closed container.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

CAS# 85-01-8:

United States OSHA: 0.2 mg/m3 TWA (as benzene soluble fraction) (Coal tar pitches).

Belgium - TWA: (coal tar pitches): 0.2 mg/m3 VLE

France - VME: (coal tar pitches): 0.2 mg/m3 VME (vapors and mists,
benzene-soluble fraction)
Germany: (coal tar pitches): 0.2 mg/m³ VME (vapors and mists, benzene-soluble fraction)

Malaysia: (coal tar pitches): 0.2 mg/m³ TWA (as benzene solubles)

Spain: (coal tar pitches): 0.2 mg/m³ VLA-ED (benzene soluble fraction)

Personal Protective Equipment
Eyes: Wear chemical splash goggles.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Crystalline powder
Color: off-white to brown
Odor: Not available
pH: Not available
Vapor Pressure: Not available
Viscosity: Not available
Boiling Point: 336 deg C @760mmHg (636.80°F)
Freezing/Melting Point: 97 - 101 deg C
Autoignition Temperature: Not available
Flash Point: Not available
Explosion Limits: Lower: Not available
Explosion Limits: Upper: Not available
Decomposition Temperature: Not available
Solubility in water: Insoluble
Specific Gravity/Density: 1.063
Molecular Formula: C₁₄H₁₀
Molecular Weight: 178.23

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials.
Incompatibilities with Other Materials: Strong oxidizing agents.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 85-01-8: SF7175000

RTECS: CAS# 85-01-8: Oral, mouse: LD50 = 700 mg/kg;
LD50/LC50: Oral, rat: LD50 = 1.8 gm/kg;

Other: Phenanthrene - NTP: Known carcinogen (Coal tar pitches). IARC: Group 1 Carcinogenicity: carcinogen (Coal tar pitches).

Other: See actual entry in RTECS for complete information. The toxicological properties have not been fully investigated.

Section 12 - Ecological Information

Ecotoxicity: Fish: Rainbow trout: LC50: 3.2 mg/L; 96h;

Other: Do not empty into drains.
Log POW: 4.52

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

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USA RQ: CAS# 85-01-8: 5000 lb final RQ; 2270 kg final RQ
Severe Marine Pollutant

Section 15 - Regulatory Information

European/International Regulations
European Labeling in Accordance with EC Directives

Hazard Symbols: XN N

Risk Phrases:
  - R 22 Harmful if swallowed.
  - R 40 Limited evidence of a carcinogenic effect.
  - R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:
  - S 29 Do not empty into drains.
  - S 36/37 Wear suitable protective clothing and gloves.
  - S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)
  - CAS# 85-01-8: Not available

Canada
  - CAS# 85-01-8 is listed on Canada's DSL List

US Federal
  - TSCA
    - CAS# 85-01-8 is listed on the TSCA Inventory.

Section 16 - Other Information
  - MSDS Creation Date: 7/16/1996
  - Revision #1 Date 1/17/2005
  - Revisions were made in Sections: General revision.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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