

# Material Safety Data Sheet

## Acenaphthene

ACC# 95363

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Acenaphthene

**Catalog Numbers:** AC102180000, AC102180010, AC102180050, AC102181000, AC201340000, AC201340050 AC201340050, AC201341000

**Synonyms:** 1,8-Ethylenenaphthalene; 1,2-Dihydroacenaphthylene; Naphthyleneethylene; peri-Ethylenenaphthalene; Ethylenenaphthalene; a tricyclic aromatic hydrocarbon that occurs in coal tar.

**Company Identification:**

Acros Organics N.V.  
One Reagent Lane  
Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01

**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
83-32-9	Acenaphthene	>96	201-469-6

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

**Appearance:** brown powder and chunks.

**Warning!** Causes eye, skin, and respiratory tract irritation. May be harmful if swallowed or inhaled.

**Target Organs:** Respiratory system, eyes, skin.

#### Potential Health Effects

**Eye:** Causes eye irritation.

**Skin:** Causes skin irritation.

**Ingestion:** May cause irritation of the digestive tract. May be harmful if swallowed.

**Inhalation:** Causes respiratory tract irritation. May be harmful if inhaled.

**Chronic:** Chronic exposure may cause liver damage. Chronic exposure may cause lung damage. Oral exposure of rats to daily 2g doses of acenaphthene for 32 days produced peripheral blood changes, mild liver and kidney damage, and pulmonary effects. Subchronic oral exposure to acenaphthene at doses of >350 mg/kg for 90 days produced increased liver weights, hepatocellular hypertrophy, and increased cholesterol levels in

### Section 4 - First Aid Measures

**Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

**Skin:** In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

**Ingestion:** If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Treat symptomatically and supportively.

### 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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

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

**Flash Point:** 125 deg C ( 257.00 deg F)

**Autoignition Temperature:** > 450 deg C (> 842.00 deg F)

**Explosion Limits, Lower:**Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 1; Instability: 0

### 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. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation. Do not let this chemical enter

the environment.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid breathing dust.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Acenaphthene	none listed	none listed	none listed

**OSHA Vacated PELs:** Acenaphthene: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Powder and chunks

**Appearance:** brown

**Odor:** Not available.

**pH:** Not applicable.

**Vapor Pressure:** 0.00207 hPa @ 25 deg C

**Vapor Density:** 5.32 (air=1)

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 279 deg C

**Freezing/Melting Point:** 90-95 deg C

**Decomposition Temperature:** Not available.

**Solubility:** Insoluble.

**Specific Gravity/Density:** 1.15 @ 20°C

**Molecular Formula:** C<sub>12</sub>H<sub>10</sub>

**Molecular Weight:** 154.21

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Dust generation, excess heat.

**Incompatibilities with Other Materials:** Strong oxidizing agents.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

### RTECS#:

**CAS#** 83-32-9: AB1000000

### LD50/LC50:

Not available.

Oral LD50 rat: 1700 mg/kg.

### Carcinogenicity:

CAS# 83-32-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information found

**Teratogenicity:** No information found

**Reproductive Effects:** Adverse reproductive effects have occurred in experimental animals.

**Mutagenicity:** See actual entry in RTECS for complete information.

**Neurotoxicity:** No information found

**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** Fish: Bluegill/Sunfish: LC50 =1.7 mg/L; 96 Hr; Static bioassay Water flea Daphnia: EC50 =41.2 mg/L; 48 Hr; Unspecified Bacteria: Phytobacterium phosphoreum: EC50 =0.58-0.93 mg/L; 15 min; Microtox test at 15°C Fish: Fathead Minnow: LC50 =1.6 mg/L; 96 Hr; Flow-through at 22.9°C (pH 7.5-7.6) Fish: Rainbow trout: LC50 =0.67 mg/L; 96 Hr; Acenaphthene is not expected to undergo hydrolysis or bioconcentrate in environmental waters. It is degraded by microbes and is readily metabolized by multicellular organisms. Bioaccumulation, (BCF value = 387) especially in vertebrate organisms, is considered to be short-term and is not considered an important fate process. The half-life in the bluegill fish is less than 1 day. Acenaphthene should biodegrade rapidly in the environment with a half-life in aerobic soil and surface water range from 10-60 days and 1-25 days.

**Environmental:** Estimated Koc range = 2065 - 3230. This range suggests that this product should be only slightly mobile in soil. It may adsorb to sediments and suspended solids in the water column. Acenaphthene exists almost entirely in the vapor-phase in the ambient atmosphere and the reaction with photochemically produced hydroxyl radicals with a half-life of 7.2 hours may be a significant fate process.

**Physical:** No information available.

**Other:** Dangerous to aquatic life in high concentrations.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	Not regulated	Not Regulated
<b>Hazard Class:</b>		
<b>UN Number:</b>		
<b>Packing Group:</b>		

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 83-32-9 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

CAS# 83-32-9: 100 lb final RQ; 45.4 kg final RQ

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 83-32-9: immediate.

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. CAS# 83-32-9 is listed as a Priority Pollutant under the Clean Water Act. CAS# 83-32-9 is listed as a Toxic Pollutant under the Clean Water Act.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 83-32-9 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Massachusetts.

#### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

##### Hazard Symbols:

XN

##### Risk Phrases:

R 22 Harmful if swallowed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

##### Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of

water and seek medical advice.  
S 37/39 Wear suitable gloves and eye/face protection.

**WGK (Water Danger/Protection)**

CAS# 83-32-9: No information available.

**Canada - DSL/NDSL**

CAS# 83-32-9 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

CAS# 83-32-9 is listed on the Canadian Ingredient Disclosure List.

<b>Section 16 - Additional Information</b>
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**MSDS Creation Date:** 5/10/1999

**Revision #4 Date:** 5/18/2006

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