

## SAFETY DATA SHEET

Creation Date 04-Jun-2010

Revision Date 19-Jan-2018

Revision Number 3

### 1. Identification

**Product Name** Acenaphthene

**Cat No. :** AC201340000; AC201340050; AC201341000; AC201345000

**CAS-No** 83-32-9

**Synonyms** 1,2-Dihydroacenaphthylene; Naphthyleneethylene; 1,8-Ethylenenaphthalene

**Recommended Use** Laboratory chemicals.

**Uses advised against** Food, drug, pesticide or biocidal product use.

**Details of the supplier of the safety data sheet**

**Company**

|                     |                     |
|---------------------|---------------------|
| Fisher Scientific   | Acros Organics      |
| One Reagent Lane    | One Reagent Lane    |
| Fair Lawn, NJ 07410 | Fair Lawn, NJ 07410 |
| Tel: (201) 796-7100 |                     |

**Emergency Telephone Number**

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11

Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99

**CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

### 2. Hazard(s) identification

**Classification**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

|  |            |
|--|------------|
| Skin Corrosion/Irritation                        | Category 2 |
| Serious Eye Damage/Eye Irritation                | Category 2 |
| Specific target organ toxicity (single exposure) | Category 3 |
| Target Organs - Respiratory system.              |            |

**Label Elements**

**Signal Word**

Warning

**Hazard Statements**

Causes skin irritation

Causes serious eye irritation

May cause respiratory irritation



### Precautionary Statements

#### Prevention

Wash face, hands and any exposed skin thoroughly after handling  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Avoid breathing dust/fume/gas/mist/vapors/spray  
 Use only outdoors or in a well-ventilated area

#### Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Call a POISON CENTER or doctor/physician if you feel unwell

#### Skin

IF ON SKIN: Wash with plenty of soap and water  
 If skin irritation occurs: Get medical advice/attention  
 Take off contaminated clothing and wash before reuse

#### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If eye irritation persists: Get medical advice/attention

#### Storage

Store in a well-ventilated place. Keep container tightly closed  
 Store locked up

#### Disposal

Dispose of contents/container to an approved waste disposal plant

#### Hazards not otherwise classified (HNOC)

Very toxic to aquatic life

### 3. Composition/Information on Ingredients

| Component    | CAS-No  | Weight % |
|--------------|---------|----------|
| Acenaphthene | 83-32-9 | >95      |

### 4. First-aid measures

|  |  |
|--|--|
| <b>Eye Contact</b>                         | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.              |
| <b>Skin Contact</b>                        | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention. |
| <b>Inhalation</b>                          | Remove from exposure, lie down. Remove to fresh air. If not breathing, give artificial respiration. Get medical attention.   |
| <b>Ingestion</b>                           | Clean mouth with water. Get medical attention.   |
| <b>Most important symptoms and effects</b> | No information available.  |
| <b>Notes to Physician</b>                  | Treat symptomatically  |

### 5. Fire-fighting measures

|   |  |
|---|--|
| <b>Suitable Extinguishing Media</b>     | Water spray. Carbon dioxide (CO <sub>2</sub> ). Dry chemical. Chemical foam. |
| <b>Unsuitable Extinguishing Media</b>   | No information available   |
| <b>Flash Point</b>                      | 135 °C / 275 °F  |
| <b>Method -</b>                         | No information available   |
| <b>Autoignition Temperature</b>         | 450 °C / 842 °F  |
| <b>Explosion Limits</b>                 |  |
| <b>Upper</b>                            | No data available  |
| <b>Lower</b>                            | No data available  |
| <b>Sensitivity to Mechanical Impact</b> | No information available   |
| <b>Sensitivity to Static Discharge</b>  | No information available   |

**Specific Hazards Arising from the Chemical**

Do not allow run-off from fire-fighting to enter drains or water courses.

**Hazardous Combustion Products**

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

**Protective Equipment and Precautions for Firefighters**

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

**NFPA**

| Health | Flammability | Instability | Physical hazards |
|--------|--------------|-------------|------------------|
| 2      | 1            | 0           | N/A              |

## 6. Accidental release measures

|                                  |   |
|----------------------------------|---|
| <b>Personal Precautions</b>      | Ensure adequate ventilation. Use personal protective equipment as required.   |
| <b>Environmental Precautions</b> | Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. |

**Methods for Containment and Clean Up** Sweep up and shovel into suitable containers for disposal.

## 7. Handling and storage

|                 |  |
|-----------------|--|
| <b>Handling</b> | Avoid contact with skin and eyes. Do not breathe dust.   |
| <b>Storage</b>  | Keep in a dry, cool and well-ventilated place. Refer product specification and/or product label for specific storage temperature requirement. Keep container tightly closed. |

## 8. Exposure controls / personal protection

|                                      |   |
|--------------------------------------|---|
| <b>Exposure Guidelines</b>           | This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.                               |
| <b>Engineering Measures</b>          | Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.                           |
| <b>Personal Protective Equipment</b> |   |
| <b>Eye/face Protection</b>           | 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. |

|                                 |   |
|---------------------------------|---|
| <b>Skin and body protection</b> | Wear appropriate protective gloves and clothing to prevent skin exposure.   |
| <b>Respiratory Protection</b>   | 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. |
| <b>Hygiene Measures</b>         | Handle in accordance with good industrial hygiene and safety practice.  |

## 9. Physical and chemical properties

|   |                           |
|---|---------------------------|
| <b>Physical State</b>                         | Solid                     |
| <b>Appearance</b>                             | Brown                     |
| <b>Odor</b>                                   | No information available  |
| <b>Odor Threshold</b>                         | No information available  |
| <b>pH</b>                                     | Not applicable            |
| <b>Melting Point/Range</b>                    | 90 - 95 °C / 194 - 203 °F |
| <b>Boiling Point/Range</b>                    | 279 °C / 534.2 °F         |
| <b>Flash Point</b>                            | 135 °C / 275 °F           |
| <b>Evaporation Rate</b>                       | Not applicable            |
| <b>Flammability (solid,gas)</b>               | No information available  |
| <b>Flammability or explosive limits</b>       |                           |
| <b>Upper</b>                                  | No data available         |
| <b>Lower</b>                                  | No data available         |
| <b>Vapor Pressure</b>                         | 10 mmHg @ 131 °C          |
| <b>Vapor Density</b>                          | Not applicable            |
| <b>Specific Gravity</b>                       | 1.060                     |
| <b>Solubility</b>                             | insoluble                 |
| <b>Partition coefficient; n-octanol/water</b> | No data available         |
| <b>Autoignition Temperature</b>               | 450 °C / 842 °F           |
| <b>Decomposition Temperature</b>              | No information available  |
| <b>Viscosity</b>                              | Not applicable            |
| <b>Molecular Formula</b>                      | C12 H10                   |
| <b>Molecular Weight</b>                       | 154.21                    |

## 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactive Hazard</b>                  | None known, based on information available              |
| <b>Stability</b>                        | Stable under normal conditions.                         |
| <b>Conditions to Avoid</b>              | Excess heat. Incompatible products.                     |
| <b>Incompatible Materials</b>           | Strong oxidizing agents, Metals, Strong acids           |
| <b>Hazardous Decomposition Products</b> | Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ) |
| <b>Hazardous Polymerization</b>         | No information available.                               |
| <b>Hazardous Reactions</b>              | None under normal processing.                           |

## 11. Toxicological information

### Acute Toxicity

#### Product Information Component Information

| Component    | LD50 Oral                  | LD50 Dermal | LC50 Inhalation |
|--------------|----------------------------|-------------|-----------------|
| Acenaphthene | LD50 = 10000 mg/kg ( Rat ) | Not listed  | Not listed      |

**Toxicologically Synergistic** No information available

**Products****Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Irritation** No information available

**Sensitization** No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component    | CAS-No  | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|--------------|---------|------------|------------|------------|------------|------------|
| Acenaphthene | 83-32-9 | Not listed | Not listed | Not listed | Not listed | Not listed |

**Mutagenic Effects** No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** Respiratory system

**STOT - repeated exposure** None known

**Aspiration hazard** No information available

**Symptoms / effects, both acute and delayed** No information available

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## 12. Ecological information

**Ecotoxicity**

The product contains following substances which are hazardous for the environment. Very toxic to aquatic organisms.

| Component    | Freshwater Algae   | Freshwater Fish   | Microtox                | Water Flea   |
|--------------|--|---|-------------------------|--|
| Acenaphthene | EC50: 0.23 - 1.15 mg/L, 96h<br>(Pseudokirchneriella subcapitata) | LC50: 1.3 - 2.1 mg/L, 96h static (Lepomis macrochirus)<br>LC50: = 0.509 mg/L, 96h flow-through (Pimephales promelas)<br>LC50: 0.6 - 0.75 mg/L, 96h flow-through (Oncorhynchus mykiss) | EC50 = 0.58 mg/L 15 min | EC50: 1.102 - 1.475 mg/L, 48h Static (Daphnia magna)<br>EC50: = 3.45 mg/L, 48h (Daphnia magna)<br>EC50: = 41 mg/L, 48h (Daphnia magna) |

**Persistence and Degradability** May persist

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Is not likely mobile in the environment due its low water solubility.

| Component    | log Pow |
|--------------|---------|
| Acenaphthene | 4.43    |

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

**DOT**

UN-No UN3077  
 Proper Shipping Name Environmentally hazardous substances, solid, n.o.s.  
 Technical Name Acenaphthene  
 Hazard Class 9  
 Packing Group III

**TDG**

UN-No UN3077  
 Proper Shipping Name Environmentally hazardous substances, solid, n.o.s.  
 Hazard Class 9  
 Packing Group III

**IATA**

UN-No UN3077  
 Proper Shipping Name Environmentally hazardous substances, solid, n.o.s.  
 Hazard Class 9  
 Packing Group III

**IMDG/IMO**

UN-No UN3077  
 Proper Shipping Name Environmentally hazardous substances, solid, n.o.s.  
 Hazard Class 9  
 Packing Group III

## 15. Regulatory information

**United States of America Inventory**

| Component    | CAS-No  | TSCA | TSCA Inventory notification - Active/Inactive | TSCA - EPA Regulatory Flags |
|--------------|---------|------|---|-----------------------------|
| Acenaphthene | 83-32-9 | X    | ACTIVE  | -                           |

**Legend:**

TSCA - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

- - Not Listed

TSCA 12(b) - Notices of Export Not applicable

**International Inventories**

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

| Component    | CAS-No  | DSL | NDSL | EINECS    | PICCS | ENCS | AICS | IECSC | KECL     |
|--------------|---------|-----|------|-----------|-------|------|------|-------|----------|
| Acenaphthene | 83-32-9 | X   | -    | 201-469-6 | X     | X    | X    | X     | KE-10602 |

**U.S. Federal Regulations**

SARA 313 Not applicable

| Component    | CAS-No  | Weight % | SARA 313 - Threshold Values % |
|--------------|---------|----------|-------------------------------|
| Acenaphthene | 83-32-9 | >95      | 0.1                           |

SARA 311/312 Hazard Categories See section 2 for more information

**CWA (Clean Water Act)**

| Component    | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|--------------|----------------------------|-----------------------------|------------------------|---------------------------|
| Acenaphthene | -                          | -                           | X                      | X                         |

Clean Air Act Not applicable

OSHA - Occupational Safety and Not applicable

Health Administration

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Component    | Hazardous Substances RQs | CERCLA EHS RQs |
|--------------|--------------------------|----------------|
| Acenaphthene | 100 lb                   | -              |

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

| Component    | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|--------------|---------------|------------|--------------|----------|--------------|
| Acenaphthene | X             | X          | X            | -        | -            |

**U.S. Department of Transportation**

Reportable Quantity (RQ): N  
 DOT Marine Pollutant N  
 DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security**

This product does not contain any DHS chemicals.

**Other International Regulations****Mexico - Grade**

No information available

## 16. Other information

**Prepared By**

Regulatory Affairs  
 Thermo Fisher Scientific  
 Email: EMSDS.RA@thermofisher.com

**Creation Date**

04-Jun-2010

**Revision Date**

19-Jan-2018

**Print Date**

19-Jan-2018

**Revision Summary**

This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**