

SAFETY DATA SHEET

Creation Date 04-Jun-2010 Revision Date 09-Feb-2024 Revision Number 5

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

Emergency Telephone Number

For information **US** call: 001-800-227-6701 / **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/IrritationCategory 2Serious Eye Damage/Eye IrritationCategory 2Specific 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
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Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get

medical attention.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes. Get medical attention.

Inhalation Remove from exposure, lie down. Remove to fresh air. If not breathing, give artificial

respiration. Get medical attention.

Ingestion Clean mouth with water. Get medical attention.

Most important symptoms and

effects

No information available.

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Water spray. Carbon dioxide (CO 2). Dry chemical. Chemical foam.

Unsuitable Extinguishing Media No information available

Flash Point 135 °C / 275 °F

Method - No information available

Autoignition Temperature 450 °C / 842 °F

Explosion Limits

Upper No data available
Lower No data available
Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge 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 (CO2).

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

Personal Precautions
Environmental Precautions

Ensure adequate ventilation. Use personal protective equipment as required. 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 Sweep up and shovel into suitable containers for disposal. **Up**

	7. Handling and storage
Handling	Avoid contact with skin and eyes. Do not breathe dust.
Storage.	Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Incompatible Materials. Strong oxidizing agents. Metals. Strong acids.

8. Exposure controls <i>i</i>	personal	protection
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Exposure Guidelines This product does not contain any hazardous materials with occupational exposure

limitsestablished by the region specific regulatory bodies.

Engineering Measures Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations

and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by

Revision Date 09-Feb-2024 Acenaphthene

OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard

EN166.

Wear appropriate protective gloves and clothing to prevent skin exposure. Skin and body protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard **Respiratory Protection**

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.

Particulates filter conforming to EN 143. **Recommended Filter type:**

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Solid **Physical State Appearance** Brown

Odor No information available **Odor Threshold** No information available

Ha Not applicable

Melting Point/Range 90 - 95 °C / 194 - 203 °F

Boiling Point/Range 279 °C / 534.2 °F 135 °C / 275 °F **Flash Point Evaporation Rate** Not applicable

No information available Flammability (solid,gas)

Flammability or explosive limits

Upper No data available Lower No data available **Vapor Pressure** 10 mmHg @ 131 °C **Vapor Density** Not applicable

1.060 **Specific Gravity** insoluble Solubility

Partition coefficient; n-octanol/water No data available **Autoignition Temperature** 450 °C / 842 °F **Decomposition Temperature** No information available

Viscosity Not applicable Molecular Formula

C12 H10 154.21 **Molecular Weight**

10. Stability and reactivity

None known, based on information available **Reactive Hazard**

Stable under normal conditions. Stability

Conditions to Avoid Excess heat. Incompatible products.

Incompatible Materials Strong oxidizing agents, Metals, Strong acids

Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO2)

Hazardous Polymerization No information available.

Hazardous Reactions 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

IrritationNo information availableSensitizationNo information available

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

ĺ	Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
	Acenaphthene	83-32-9	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 No information available

delayed

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	LC50: 0.6 - 0.75 mg/L, 96h	EC50 = 0.58 mg/L 15 min	EC50: 1.102 - 1.475 mg/L
	(Pseudokirchneriella	flow-through (Oncorhynchus		48h Static (Daphnia magna
	subcapitata)	mykiss)		EC50: = 3.45 mg/L, 48h
		LC50: 1.3 - 2.1 mg/L, 96h		(Daphnia magna)
		static (Lepomis macrochirus)		EC50: = 41 mg/L, 48h
		LC50: = 0.509 mg/L, 96h		(Daphnia magna)
		flow-through (Pimephales		
		promelas)		
		promelas)		

Persistence and Degradability May persist

Bioaccumulation/ AccumulationNo information available.

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

Component	log Pow	
Acenaphthene	4.04	

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

<u>TDG</u>

UN-No UN3077

Proper Shipping Name Environmentally hazardous substances, solid, n.o.s.

Hazard Class 9
Packing Group

<u>IATA</u>

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	Χ	ACTIVE	-

Legend:

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

X - Listed

'-' - Not Listed

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)

Not applicable

TSCA 12(b) - Notices of Export

Not applicable

International Inventories

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

Compon	ent	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Acenaphth	hene	83-32-9	Χ	-	201-469-6	Χ	Χ	Х	Х	Х	KE-10602

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372. Note that PBT chemicals are not eligible for the de minimis exemption. For these chemicals, supplier notification limits are provided.

> 0 % = no low concentration cut-off set, supplier notification limit applies.

Component	CAS No	Weight %	SARA 313 - Threshold Values %	SARA 313 - Reporting threasholds
Acenaphthene	83-32-9	>95	> 0 %	-

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

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) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

Component	Hazardous Substances RQs	CERCLA Extremely Hazardous Substances RQs	SARA Reportable Quantity (RQ)
Acenaphthene	100 lb	-	100 lb 45.4 kg

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): Y
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

Authorisation/Restrictions according to EU REACH Not applicable

Component		REACH (1907/2006) - Annex XIV - Substances Subject to Authorization		REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Acenaphthene	83-32-9	-	-	-

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Acenaphthene	83-32-9	Listed	Not applicable	Not applicable	Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)? Not applicable

Other International Regulations

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements		Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Acenaphthene	83-32-9	Not applicable	Not applicable	Not applicable	Not applicable

16. Other information

Prepared By Regulatory Affairs

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 Creation Date
 04-Jun-2010

 Revision Date
 09-Feb-2024

 Print Date
 09-Feb-2024

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