

Material Safety Data Sheet

Octanoic Acid, 99%

ACC# 96506

Section 1 - Chemical Product and Company Identification

MSDS Name: Octanoic Acid, 99%

Catalog Numbers: AC129390000, AC129390010, AC129390025, AC129390250

Synonyms: Caprylic acid; octic acid; n-octoic acid; n-octylic acid

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
124-07-2	Octanoic acid	99.0	204-677-5

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: after melting, clear slightly yellow liquid.

Danger! Forms explosive mixture with air. Corrosive. Causes eye and skin burns. Aspiration hazard if swallowed. Can enter lungs and cause damage. May cause severe respiratory tract irritation with possible burns. May cause severe digestive tract irritation with possible burns.

Target Organs: Lungs, eyes, skin.

Potential Health Effects

Eye: Causes eye burns. May cause chemical conjunctivitis and corneal damage.

Skin: Causes skin burns. May cause skin burns. Causes severe skin irritation and burns. May cause skin rash (in milder cases), and cold and clammy skin with cyanosis or pale color.

Ingestion: May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns. May cause perforation of the digestive tract. May cause systemic effects.

Inhalation: Dust is irritating to the respiratory tract. Causes chemical burns to the respiratory tract. Aspiration may cause respiratory swelling and pneumonitis. Causes irritation of mucous membrane. Aspiration may lead to pulmonary edema. May cause systemic effects.

Chronic: Chronic inhalation may cause effects similar to those of acute inhalation. Effects may be delayed.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Possible aspiration hazard. Get medical aid immediately.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

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. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. May accumulate static electrical charges, and may cause ignition of its own vapors.

Extinguishing Media: Water may be ineffective. Use water spray, dry chemical, carbon dioxide, or chemical foam.

Flash Point: 130 deg C (266.00 deg F)

Autoignition Temperature: 440 deg C (824.00 deg F)

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 3; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures

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

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Use with adequate ventilation. Discard contaminated shoes.

Storage: Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Corrosives area.

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
Octanoic acid	none listed	none listed	none listed

OSHA Vacated PELs: Octanoic acid: 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. 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: Liquid

Appearance: after melting, clear slightly yellow

Odor: Slightly unpleasant & irritating odor

pH: Not available.

Vapor Pressure: 0.05 hPa @ 20 C

Vapor Density: 5.0

Evaporation Rate: Not available.

Viscosity: mPas 20 deg C

Boiling Point: 237 deg C @ 760.00mm Hg

Freezing/Melting Point: 16 - 16.5 deg C

Decomposition Temperature: Not available.

Solubility: soluble in alcohol and ether

Specific Gravity/Density: .9100g/cm3

Molecular Formula: C8H16O2

Molecular Weight: 144.21

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Forms explosive mixtures with air (56°F/13°C).

Conditions to Avoid: Incompatible materials.

Incompatibilities with Other Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, acrid smoke and fumes.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 124-07-2: RH0175000

LD50/LC50:

CAS# 124-07-2:

Draize test, rabbit, skin: 500 mg/24H Moderate;

Oral, rat: LD50 = 10080 mg/kg;

Skin, rabbit: LD50 = >5 gm/kg;

Carcinogenicity:

CAS# 124-07-2: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found

Teratogenicity: No information found
Reproductive Effects: No information found
Mutagenicity: Sex chromosome loss and nondisjunctionYeast - Saccharomyces cerevisiae= 5 ppmMutation test systems - not otherwise specifiedNon-mammalian species Cells =10 mmol/L.
Neurotoxicity: No information found
Other Studies:

Section 12 - Ecological Information

Ecotoxicity: Fish: Red killifish: LC50 = 57 mg/L; 96 Hr.; Unspecified No data available.

Environmental: Octanoic acid is not expected to volatilize from dry soil surfaces based on a measured vapor pressure of 3.7×10^{-3} mm Hg. Biodegradation of octanoic acid in soil may be important, based on its biodegradation in sewage and sludge. Volatilization of octanoic acid from water surfaces is not expected to be an important fate process based on this compound's pKa and the estimated Henry's Law constant of 8.9×10^{-7} atm-cu m/mole, derived from its experimental values for vapor pressure, 3.7×10^{-3} mm Hg(5).

Physical: ATMOSPHERIC FATE: According to a model of gas/particle partitioning of semivolatile organic compounds in the atmosphere, octanoic acid, which has a measured vapor pressure of 3.7×10^{-3} mm Hg at 25 deg C, is expected to exist solely as a vapor in the ambient atmosphere. Vapor-phase octanoic acid is degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be about 1.9 days.

Other: An estimated BCF value of 120 was calculated for octanoic acid, using a measured log Kow of 3.05 and a recommended regression-derived equation. According to a classification scheme, this BCF value suggests that bioconcentration in aquatic organisms is high. The Koc of octanoic acid is estimated as approximately 1100, using a measured log Kow of 3.05 and a regression-derived equation. According to a recommended classification scheme, this estimated Koc value suggests that octanoic acid is expected to have low mobility in soil.

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
Shipping Name:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.	CORROSIVE LIQUID NOS (OCTANOIC ACID)
Hazard Class:	8	8
UN Number:	UN3265	UN1760
Packing Group:	III	II

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 124-07-2 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

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 124-07-2: 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.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

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

STATE

CAS# 124-07-2 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

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:

C

Risk Phrases:

R 34 Causes burns.

Safety Phrases:

S 25 Avoid contact with eyes.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 124-07-2: 1

Canada - DSL/NDSL

CAS# 124-07-2 is listed on Canada's DSL List.

Canada - WHMIS

not available.

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# 124-07-2 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 6/17/1999

Revision #3 Date: 10/03/2005

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability 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 Fisher 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 Fisher has been advised of the possibility of such damages.