

Safety Data Sheet acc. to OSHA HCS

Printing date 06/01/2023

Revision date 06/01/2023

1 Identification

- **Product identifier**
- **Trade name:** Octanoic Acid
- **Article number:** 33674
- **CAS Number:**
124-07-2
- **EC number:**
204-677-5
- **Index number:**
607-708-00-4
- **Application of the substance / the mixture**
This product is for research use - Not for human or veterinary diagnostic or therapeutic use.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Cayman Chemical Co.
1180 E. Ellsworth Rd.
Ann Arbor, MI 48108
USA
- **Information department:** Product safety department
- **Emergency telephone number:**
During normal opening times: +1 (734) 971-3335
US/CANADA: 800-424-9300
Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS05 Corrosion

Skin Corrosion 1C H314 Causes severe skin burns and eye damage.

Eye Damage 1 H318 Causes serious eye damage.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- **Label elements**

- **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/01/2023

Revision date 06/01/2023

Trade name: Octanoic Acid

(Contd. from page 1)

- **Hazard pictograms**



GHS05

- **Signal word** Danger

- **Hazard-determining components of labeling:**

Octanoic acid

- **Hazard statements**

H314 Causes severe skin burns and eye damage.

H412 Harmful to aquatic life with long lasting effects.

- **Precautionary statements**

P260 Do not breathe dusts or mists.

P264 Wash thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a poison center/doctor.

P321 Specific treatment (see on this label).

P363 Wash contaminated clothing before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 3

Fire = 1

Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = *3

Fire = 1

Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**

- **CAS No. Description**

124-07-2 Octanoic acid

(Contd. on page 3)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/01/2023

Revision date 06/01/2023

Trade name: Octanoic Acid

(Contd. from page 2)

- Identification number(s)
- EC number: 204-677-5
- Index number: 607-708-00-4

4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Use fire fighting measures that suit the environment.
A solid water stream may be inefficient.
- **Special hazards arising from the substance or mixture**
67-56-1 During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

30 mg/m³

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/01/2023

Revision date 06/01/2023

Trade name: Octanoic Acid

(Contd. from page 3)

· PAC-2:

330 mg/m³

· PAC-3:

2,000 mg/m³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:** Store in accordance with information listed on the product insert.
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Contd. on page 5)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/01/2023

Revision date 06/01/2023

Trade name: Octanoic Acid

(Contd. from page 4)

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Liquid
Color: Not determined.

- **Odor:** Rancid

- **Structural Formula**
 $C_8H_{16}O_2$
 $C_8H_{16}O_2$

- **Molecular Weight**
144.21 g/mol
144.2

- **Odor threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range: 16.7 °C (62.1 °F)
Boiling point/Boiling range: 237 °C (458.6 °F)

- **Flash point:** 136 °C (276.8 °F)

- **Flammability (solid, gaseous):** Not applicable.

- **Auto igniting:** 440 °C (824 °F)

- **Decomposition temperature:** Not determined.

- **Ignition temperature:** Not determined.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**

Lower: Not determined.
Upper: Not determined.

- **Vapor pressure at 20 °C (68 °F):** 0.0533 hPa (0 mm Hg)

- **Density at 20 °C (68 °F):** 0.91 g/cm³ (7.59395 lbs/gal)

- **Relative density** Not determined.

- **Vapor density** Not determined.

- **Evaporation rate** Not determined.

- **Solubility in / Miscibility with**

Water at 20 °C (68 °F): 0.68 g/l

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/01/2023

Revision date 06/01/2023

Trade name: Octanoic Acid

(Contd. from page 5)

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

Dynamic at 20 °C (68 °F): 5–6 mPas

Kinematic: Not determined.

SOLUBILITY Methanol: soluble

VOC content: 0.00 %

0.0 g/l / 0.00 lb/gal

Solids content: 0.0 %

· **Other information** No further relevant information available.

10 Stability and reactivity

· **Reactivity** No further relevant information available.

· **Chemical stability**

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

· **Possibility of hazardous reactions** No dangerous reactions known.

· **Conditions to avoid** No further relevant information available.

· **Incompatible materials:** No further relevant information available.

· **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

124-07-2 Octanoic acid

Oral	LD50	10,080 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)

· **Primary irritant effect:**

· **on the skin:** No irritant effect.

· **on the eye:** Strong irritant with the danger of severe eye injury.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

Substance is not listed.

· **NTP (National Toxicology Program)**

Substance is not listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

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(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/01/2023

Revision date 06/01/2023

Trade name: Octanoic Acid

(Contd. from page 6)


12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
 Water hazard class 1 (Assessment by list): slightly hazardous for water
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
 Must not reach bodies of water or drainage ditch undiluted or unneutralized.
 Harmful to aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|--|
| <ul style="list-style-type: none"> · UN-Number · DOT, IMDG, IATA | <p style="text-align: center;">UN1760</p> |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT · IMDG · IATA | <p style="text-align: center;">Corrosive liquids, n.o.s. (Octanoic acid)
 CORROSIVE LIQUID, N.O.S. (Octanoic acid)
 Corrosive liquid, n.o.s. (Octanoic acid)</p> |
| <ul style="list-style-type: none"> · Transport hazard class(es) · DOT | <div style="text-align: center;">  <p style="margin: 0;">CORROSIVE
8</p> </div> |
| <ul style="list-style-type: none"> · Class | <p style="text-align: center;">8 Corrosive substances</p> |

(Contd. on page 8)

Safety Data Sheet


acc. to OSHA HCS

Printing date 06/01/2023

Revision date 06/01/2023

Trade name: Octanoic Acid

(Contd. from page 7)

· Label	8
· IMDG, IATA	
	
· Class	8 Corrosive substances
· Label	8
· Packing group	
· DOT, IMDG, IATA	II
· Environmental hazards:	Not applicable.
· Special precautions for user	Warning: Corrosive substances
· Hazard identification number (Kemler code):	80
· EMS Number:	F-A,S-B
· Stowage Category	B
· Stowage Code	SW2 Clear of living quarters.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 1 L On cargo aircraft only: 30 L
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· IATA	
· Remarks:	When sold in quantities of less than or equal to 1 mL, or 1 g, with an Excepted Quantity Code of E1, E2, E4, or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10. Therefore packaging does not have to be labeled as Dangerous Goods/Excepted Quantity.
· UN "Model Regulation":	UN 1760 CORROSIVE LIQUID, N.O.S. (OCTANOIC ACID), 8, II

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
- **Sara**

· Section 355 (extremely hazardous substances):

Substance is not listed.

(Contd. on page 9)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/01/2023

Revision date 06/01/2023

Trade name: Octanoic Acid

(Contd. from page 8)

· Section 313 (Specific toxic chemical listings):
Substance is not listed.

· TSCA (Toxic Substances Control Act):
ACTIVE

· Hazardous Air Pollutants
Substance is not listed.

· Proposition 65
· Chemicals known to cause cancer:
Substance is not listed.

· Chemicals known to cause reproductive toxicity for females:
Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:
Substance is not listed.

· Chemicals known to cause developmental toxicity:
Substance is not listed.

· Carcinogenic categories
· EPA (Environmental Protection Agency)
Substance is not listed.

· TLV (Threshold Limit Value)
Substance is not listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)
Substance is not listed.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Cayman Chemical Company assumes no responsibility for the completeness or accuracy of the information contained herein.

- **Department issuing SDS:** Environment protection department.

- **Contact:** -

- **Date of preparation / last revision** 06/01/2023

- **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/01/2023

Revision date 06/01/2023

Trade name: Octanoic Acid

(Contd. from page 9)

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Skin Corrosion 1C: Skin corrosion/irritation – Category 1C

Eye Damage 1: Serious eye damage/eye irritation – Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· *** Data compared to the previous version altered.**

US