

# SAFETY DATA SHEET

Creation Date 12-Jun-2007

Revision Date 18-Dec-2025

Revision Number 5

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

## 1. Identification

**Product Name** Octanoyl chloride

**Cat No. :** AC129430000; AC129430025; AC129430050; AC129431000; AC129435000

**CAS No** 111-64-8  
**Synonyms** Capryloyl chloride

**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 according to [US] OSHA (29 CFR 1910.1200, 2024)

Flammable liquids	Category 4
Corrosive to metals	Category 1
Acute Inhalation Toxicity - Dusts and Mists	Category 2
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 1
Skin Sensitization	Category 1

### Label Elements

#### **Signal Word**

Danger

**Hazard Statements**

Combustible liquid  
May be corrosive to metals  
Causes skin irritation  
May cause an allergic skin reaction  
Causes serious eye damage  
Fatal if inhaled

**Precautionary Statements****Prevention**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
Keep container tightly closed  
Ground and bond container and receiving equipment  
Use explosion-proof electrical/ventilating/lighting equipment  
Wear protective gloves/protective clothing/eye protection/face protection  
Keep only in original packaging  
Do not breathe dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area  
In case of inadequate ventilation wear respiratory protection  
Wash face, hands and any exposed skin thoroughly after handling  
Contaminated work clothing should not be allowed out of the workplace  
Take action to prevent static discharges  
Use non-sparking tools

**Inhalation**

IF INHALED: Remove person to fresh air and keep comfortable for breathing  
Immediately call a POISON CENTER or doctor

**Skin**

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

**Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
Immediately call a POISON CENTER or doctor/physician

**Fire**

Fight fire with normal precautions from a reasonable distance

**Spills**

Absorb spillage to prevent material damage

**Storage**

Store locked up  
Store in corrosive resistant polypropylene container with a resistant inliner  
Store in a dry place  
Store in a closed container  
Store in a well-ventilated place. Keep cool

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

None identified

**Hazards classified under paragraph (d)(1)(ii) of 1910.1200**

No information available

### 3. Composition/information on Ingredients

Component	CAS No	Weight %
Caprylyl chloride	111-64-8	>95

### 4. First-aid measures

<b>Eye Contact</b>	Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention.
<b>Inhalation</b>	Remove to fresh air. Immediate medical attention is required. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If not breathing, give artificial respiration.
<b>Ingestion</b>	Do NOT induce vomiting. Get medical attention.
<b>Most important symptoms and effects</b>	Difficulty in breathing. Causes burns by all exposure routes. Causes eye burns. May cause allergic skin reaction. Causes severe eye damage. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing
<b>Notes to Physician</b>	Treat symptomatically

### 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Carbon dioxide (CO <sub>2</sub> ). Dry chemical. Chemical foam. Water mist may be used to cool closed containers.
<b>Unsuitable Extinguishing Media</b>	No information available
<b>Flash Point</b>	75 °C / 167 °F
<b>Method -</b>	No information available
<b>Autoignition Temperature</b>	229 °C
<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

Combustible material. Contact with water liberates toxic gas. Water reactive. Produce flammable gases on contact with water. Containers may explode when heated.

#### Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Phosgene. Hydrogen chloride gas.

#### 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  
4Flammability  
2Instability  
0Physical hazards  
W

## 6. Accidental release measures

<b>Personal Precautions</b>	Remove all sources of ignition. Take precautionary measures against static discharges. Use personal protective equipment as required.
<b>Environmental Precautions</b>	See Section 12 for additional Ecological Information.
<b>Methods for Containment and Clean Up</b>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Wear self-contained breathing apparatus and protective suit. Do not expose spill to water. Do not let this chemical enter the environment. Remove all sources of ignition.

## 7. Handling and Storage

<b>Handling</b>	Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not ingest. If swallowed then seek immediate medical assistance. Handle product only in closed system or provide appropriate exhaust ventilation. Handle under inert gas, protect from moisture. Do not allow contact with water because of violent reaction. Keep away from open flames, hot surfaces and sources of ignition. Wear personal protective equipment/face protection.
<b>Storage.</b>	Keep away from heat, sparks and flame. Corrosives area. Store under an inert atmosphere. Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Water. Strong oxidizing agents. Strong bases. Alcohols. Amines.

## 8. Exposure controls / personal protection

<b><u>Exposure Guidelines</u></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><u>Personal Protective Equipment</u></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>Recommended Filter type:</b>	Organic gases and vapours filter. Type A. Brown. conforming to EN14387.
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

<b><u>Appearance</u></b>	
<b>Physical State</b>	Liquid
<b>Color</b>	Light yellow
<b>Odor</b>	pungent
<b>Odor Threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>• Method</u>
<b>Melting Point/Range</b>	-63 °C / -81.4 °F		
<b>Softening Point</b>	No data available		
<b>Boiling Point/Range</b>	195 °C / 383 °F	@ 760 mmHg	
<b>Flash Point</b>	75 °C / 167 °F		
<b>Flammability (liquid)</b>	Combustible liquid	<b>Method</b> - No information available	
<b>Flammability (solid,gas)</b>	Not applicable	On basis of test data	
<b>Explosion Limits</b>	No data available	Liquid	
<b>Autoignition Temperature</b>	229 °C		
<b>Decomposition Temperature</b>	No data available		
<b>pH</b>	4		
<b>Viscosity</b>	1.51 mPa.s (20°C)		
<b>Water Solubility</b>	reacts		
<b>Solubility in other solvents</b>	No information available		
<b>Partition Coefficient (n-octanol/water)</b>			
<b>Component</b>	<b>log Pow</b>		
Caprylyl chloride	2.062		
<b>Vapor Pressure</b>	33 Pa @ 20 °C		
<b>Density / Specific Gravity</b>	0.950		
<b>Bulk Density</b>	Not applicable	Liquid	
<b>Vapor Density</b>	5.61	(Air = 1.0)	
<b>Particle characteristics</b>	Not applicable (liquid)		
<b>Other Information</b>			
<b>Molecular Formula</b>	C8 H15 Cl O		
<b>Molecular Weight</b>	162.66		
<b>Explosive Properties</b>	explosive air/vapour mixtures possible		

## 10. Stability and reactivity

<b>Reactive Hazard</b>	Yes
<b>Stability</b>	Moisture sensitive.
<b>Conditions to Avoid</b>	Heat, flames and sparks. Incompatible products. Exposure to moist air or water. Keep away from open flames, hot surfaces and sources of ignition.
<b>Incompatible Materials</b>	Water, Strong oxidizing agents, Strong bases, Alcohols, Amines
<b>Hazardous Decomposition Products</b>	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Phosgene, Hydrogen chloride gas
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous Reactions</b>	None under normal processing.

## 11. Toxicological information

### Information on expected route of exposure

<b>Inhalation</b>	Not an expected route of exposure.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Eyes</b>	Avoid contact with eyes. Corrosive to the eyes and may cause severe damage including blindness. Lachrymator (substance which increases the flow of tears).
<b>Skin</b>	Avoid contact with skin. Causes burns.

### Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
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Caprylyl chloride	>2000 mg/kg (Rat)	-	0.63 mg/L/4h (Rat)
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**Toxicologically Synergistic Products** No information available

**(b) skin corrosion/irritation;** Category 2

**(c) serious eye damage/irritation;** Category 1

**(d) respiratory or skin sensitization;**  
**Respiratory**  
**Skin**

Based on available data, the classification criteria are not met  
 Category 1

May cause sensitization by skin contact

**(e) germ cell mutagenicity;** Based on available data, the classification criteria are not met

**(f) carcinogenicity;**

Based on available data, the classification criteria are not met

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

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Caprylyl chloride	111-64-8	Not listed	Not listed	Not listed	Not listed	Not listed

**(g) reproductive toxicity;** Based on available data, the classification criteria are not met

**(h) STOT-single exposure;** Based on available data, the classification criteria are not met

**(i) STOT-repeated exposure;** Based on available data, the classification criteria are not met

**Target Organs**

None known.

**(j) aspiration hazard;** Based on available data, the classification criteria are not met

**Other Adverse Effects**

The toxicological properties have not been fully investigated.

**Symptoms / effects, both acute and delayed**

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

**Other Adverse Effects**

The toxicological properties have not been fully investigated.

**Endocrine Disrupting Properties**

This product does not contain any known or suspected endocrine disruptors.

## 12. Ecological information

### Ecotoxicity

Do not empty into drains. .

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Caprylyl chloride	Not listed	LC50: 104 mg/L/96h (Pimephales promelas)	Not listed	Not listed

<b>Persistence and Degradability</b>	Persistence is unlikely
<b>Bioaccumulation/ Accumulation</b>	No information available.
<b>Mobility</b>	Will likely be mobile in the environment due to its water solubility.

Component	log Pow
Caprylyl chloride	2.062

### 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

<b>UN-No</b>	UN2927
<b>Proper Shipping Name</b>	TOXIC LIQUIDS, CORROSIVE, ORGANIC, N.O.S.
<b>Technical Shipping Name</b>	Caprylyl chloride
<b>Hazard Class</b>	6.1
<b>Subsidiary Hazard Class</b>	8
<b>Packing Group</b>	II

#### TDG

<b>UN-No</b>	UN2927
<b>Proper Shipping Name</b>	Toxic liquid, corrosive, organic, n.o.s.
<b>Technical Shipping Name</b>	Caprylyl chloride
<b>Hazard Class</b>	6.1
<b>Subsidiary Hazard Class</b>	8
<b>Packing Group</b>	II

#### IATA

<b>UN-No</b>	UN2927
<b>Proper Shipping Name</b>	Toxic liquid, corrosive, organic, n.o.s.
<b>Technical Shipping Name</b>	Caprylyl chloride
<b>Hazard Class</b>	6.1
<b>Subsidiary Hazard Class</b>	8
<b>Packing Group</b>	II

#### IMDG/IMO

<b>UN-No</b>	UN2927
<b>Proper Shipping Name</b>	Toxic liquid, corrosive, organic, n.o.s.
<b>Technical Shipping Name</b>	Caprylyl chloride
<b>Hazard Class</b>	6.1
<b>Subsidiary Hazard Class</b>	8
<b>Packing Group</b>	II

### 15. Regulatory Information

#### United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Caprylyl chloride	111-64-8	X	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).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Caprylyl chloride	111-64-8	X	-	203-891-6	X	X	X	X	X	-

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 does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**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)**

Not applicable

**Clean Air Act**

Not applicable

**OSHA - Occupational Safety and Health Administration**

Not applicable

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**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
Caprylyl chloride	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

**Authorisation/Restrictions according to EU REACH**

Not applicable



Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Caprylyl chloride	111-64-8	-	-	-

**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)
Caprylyl chloride	111-64-8	Not applicable	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)
Caprylyl chloride	111-64-8	Not applicable	Not applicable	Not applicable	Not applicable

**16. Other Information****Prepared By**

Product stewardship (Regulatory Affairs)  
Thermo Fisher Scientific  
email - begel.sdsdesk@thermofisher.com

**Creation Date**

12-Jun-2007

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18-Dec-2025

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18-Dec-2025

**Revision Summary**

Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024.

**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**