

Material Safety Data Sheet

(Caproic Acid)



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SECTION 1 – PRODUCT AND COMPANY INFORMATION

PRODUCT NAME Caproic Acid
SYNONYM Hexanoic acid, Caproic acid
FORMULA C₆H₁₂O₂
CAS NUMBER 142-62-1

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

PRODUCT NAME	CAS NUMBER	PURITY
Caproic Acid	142-62-1	100%

SECTION 3- HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

Toxic by inhalation., Toxic by skin absorption, Corrosive

HMIS Classification

Health Hazard: 3

Flammability: 1

Physical hazards: 0

NFPA Rating

Health Hazard: 3

Fire: 1

Reactivity Hazard: 0

Potential Health Effects

Inhalation Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Skin Toxic if absorbed through skin. Causes skin burns.

Eyes Causes eye burns.

Ingestion May be harmful if swallowed. Causes burns.

SECTION 4 – FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

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If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Continue rinsing eyes during transport to hospital. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5 – FIRE FIGHTING MEASURES

Flammable properties

Flash point	102 °C (216 °F) - closed cup
Ignition temperature	380 °C (716 °F)

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions

Do not let product enter drains.

Methods for cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

SECTION 7- HANDLING AND STORAGE

Handling

Avoid inhalation of vapour or mist. Normal measures for preventive fire protection.

Storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

SECTION 8 - EXPOSURE CONTROLS/ PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

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Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves.

Eye protection

Tightly fitting safety goggles. Faceshield (8-inch minimum).

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	clear, liquid
Colour	colourless
Odour	Stench.

Safety data

pH	no data available
Melting point	-4 °C (25 °F)
Boiling point	202 - 203 °C (396 - 397 °F)
Flash point	102 °C (216 °F) - closed cup
Ignition temperature	380 °C (716 °F)
Lower explosion limit	2 %(V)
Upper explosion limit	10 %(V)
Vapour pressure	1 hPa (1 mmHg) at 72 °C (162 °F) 0.24 hPa (0.18 mmHg) at 20 °C (68 °F)
Density	0.927 g/mL at 25 °C (77 °F)
Water solubility	no data available
Relative vapour	4.01
Density	- (Air = 1.0)

SECTION 10 – STABILITY AND REACTIVITY DATA

Storage stability

Stable under recommended storage conditions.

Materials to avoid

Bases, Oxidizing agents, Reducing agents, Allyl alcohol

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

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SECTION 11 – TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral - mouse - 5,000 mg/kg

LC50 Inhalation - mouse - 2 h - 4,100 mg/m³

LD50 Dermal - rabbit - 584 mg/kg

Irritation and corrosion

Eyes - rabbit - Severe eye irritation

Chronic exposure

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs and Symptoms of Exposure

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea

Potential Health Effects

Inhalation	Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Skin	Toxic if absorbed through skin. Causes skin burns.
Eyes	Causes eye burns.
Ingestion	May be harmful if swallowed. Causes burns.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 88 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates. EC50 - Daphnia magna (Water flea) - 22 mg/l - 24 h

SECTION 13 – DISPOSAL CONSIDERATION

Product

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION 14 - TRANSPORTATION DATA

DOT (US)

UN-Number: 2829

Class: 8

Packing group: III

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Proper shipping name: Caproic acid
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG

UN-Number: 2829 Class: 8 Packing group: III EMS-No: F-A, S-B
Proper shipping name: CAPROIC ACID
Marine pollutant: No

IATA

UN-Number: 2829 Class: 8 Packing group: III
Proper shipping name: Caproic acid

SECTION 15 – REGULATORY INFORMATION

OSHA Hazards

Toxic by inhalation., Toxic by skin absorption, Corrosive

DSL Status

All components of this product are on the Canadian DSL list.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components

Hexanoic acid	CAS-No. 142-62-1	Revision Date 1993-04-24
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Pennsylvania Right To Know Components

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New Jersey Right To Know Components

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California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

SECTION 16 – OTHER INFORMATION

Disclaimer

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.