

Caproic Acid 99%

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision Date: 07/01/2016 Date of Issue: 07/01/2016

Version: 1.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

1.1. Product Identifier

Product Form: Substance

Product Name: Caproic Acid 99%

CAS No: 142-62-1

Synonyms: Caproic Acid, Hexanoic Acid

1.2. Intended Use of the Product

Use of the substance/mixture: Chemicals for synthesis, flavoring agents, chemical intermediate.

1.3. Name, Address, and Telephone of the Responsible Party

Company

Acme-Hardesty Co
450 Sentry Parkway
Blue Bell, PA 19422
T 866-226-3834 T 215-591-3610

www.acme-hardesty.com

1.4. Emergency Telephone Number

Emergency Number : 800-424-9300

For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US classification

Acute Tox. 4 (Inhalation:dust,mist) H332

Skin Corr. 1C H314

Eye Dam. 1 H318

Aquatic Acute 3 H402

Full text of hazard classes and H-statements : see section 16

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

: Danger

Hazard Statements (GHS-US)

: H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

H332 - Harmful if inhaled

H402 - Harmful to aquatic life

Precautionary Statements (GHS-US)

: P260 - Do not breathe vapors, mist, or spray.

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, and eye 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 at rest in a position 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.

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P310 - Immediately call a poison center or doctor.
P321 - Specific treatment (see section 4 on this SDS).
P363 - Wash contaminated clothing before reuse.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

2.3. Other Hazards

Other Hazards Not Contributing to the Classification: Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Name : Caproic Acid 99%
CAS No : 142-62-1

Name	Product Identifier	%	GHS-US classification
Hexanoic acid	(CAS No) 142-62-1	> 99.0	Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Acute 3, H402

3.2. Mixture

Not applicable

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

First-aid Measures General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid Measures After Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention. Immediately call a POISON CENTER or doctor/physician.

First-aid Measures After Skin Contact: Remove contaminated clothing. Immediately flush skin with plenty of water for at least 60 minutes. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor.

First-aid Measures After Eye Contact: Rinse cautiously with water for at least 60 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms/Injuries: Harmful if inhaled. Causes severe skin burns and eye damage. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Symptoms/Injuries After Inhalation: Inhalation is likely to cause adverse health effects including but not limited to: irritation, difficulty breathing, and unconsciousness. May be corrosive to the respiratory tract.

Symptoms/Injuries After Skin Contact: Causes severe irritation which will progress to chemical burns.

Symptoms/Injuries After Eye Contact: Causes serious eye damage.

Symptoms/Injuries After Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: None known.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Dry chemical, carbon dioxide, water spray, fog. Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use water jet. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive.

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Reactivity: May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause a violent reaction.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray.

6.1.1. For Non-emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Responders

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Collect spillage. Cautiously neutralize spilled liquid. Clean up spills immediately and dispose of waste safely.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: May release corrosive vapors.

Precautions for Safe Handling: Do not get in eyes, on skin, or on clothing. Do not breathe vapors, mist, and spray.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store tightly closed in a dry, cool and well-ventilated place. Keep container closed when not in use. Protect from heat and direct sunlight. Store in original container.

Incompatible Products: Strong acids, strong bases, strong oxidizers.

Incompatible Materials: Sources of ignition. Direct sunlight.

Storage Area: Store locked up.

7.3. Specific End Use(s)

Chemicals for synthesis, flavoring agents, chemical intermediate.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

8.2. Exposure Controls

Appropriate Engineering Controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Gas detectors should be used when toxic gases may be released.

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Personal Protective Equipment : Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection. Face shield.



Materials for Protective Clothing : Chemically resistant materials and fabrics. Corrosion-proof clothing.

Hand Protection : Wear protective gloves.

Eye Protection : Chemical goggles or face shield.

Skin and Body Protection : Wear suitable protective clothing.

Respiratory Protection : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

Other Information : When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Yellowish liquid
Odor	: Unpleasant
Odor Threshold	: No data available
pH	: Not applicable
Relative Evaporation Rate (butylacetate=1)	: No data available
Melting Point	: -6 °C (21.2 °F)
Freezing Point	: No data available
Boiling Point	: 202 - 206 °C (395.6 - 402.8 °F)
Flash Point	: 110 °C (230 °F)
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor Pressure	: 0.058 hPa @ 25 °C
Relative Vapor Density at 20 °C	: No data available
Relative Density	: No data available
Specific Gravity	: Not available
Specific gravity / density	: 0.93 g/cm ³ @ 20 °C
Solubility	: Water: 10300 mg/l @ 25 °C
Partition Coefficient: N-Octanol/Water	: 1.75 log Pow @ 25 °C
Viscosity	: Not available
Viscosity, Dynamic	: 3.2 mPa.s @ 20 °C
Explosive Properties	: No data available
Oxidizing Properties	: No data available
Explosive Limits	: No data available
Lower Flammable Limit	: 1.3 % Vol
Upper Flammable Limit	: 9.3 % Vol

9.2. Other Information No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause a violent reaction.

10.2 Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

10.3 Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

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- 10.4 Conditions to Avoid:** Direct sunlight, extremely high or low temperatures, and incompatible materials.
- 10.5 Incompatible Materials:** Strong acids, strong bases, strong oxidizers.
- 10.6 Hazardous Decomposition Products:** Thermal decomposition generates: Carbon oxides (CO, CO₂). Corrosive vapors.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information On Toxicological Effects

Acute Toxicity : Inhalation:dust,mist: Harmful if inhaled.

Caproic Acid 99% (142-62-1)	
ATE (Dust/Mist)	2.071 mg/l/4h
Hexanoic acid (142-62-1)	
LD50 Oral Rat	2050 µl/kg
LC50 Inhalation Rat (mg/l)	2.05 mg/l/4h
ATE (Dust/Mist)	2.050 mg/l/4h

Skin Corrosion/Irritation: Causes severe skin burns and eye damage.

Serious Eye Damage/Irritation: Causes serious eye damage.

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Aspiration Hazard: Not classified

Potential Adverse Human Health Effects and Symptoms: Harmful if inhaled.

Symptoms/Injuries After Inhalation: Inhalation is likely to cause adverse health effects including but not limited to: irritation, difficulty breathing, and unconsciousness. May be corrosive to the respiratory tract.

Symptoms/Injuries After Skin Contact: Causes severe irritation which will progress to chemical burns.

Symptoms/Injuries After Eye Contact: Causes serious eye damage.

Symptoms/Injuries After Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: None known.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General : Harmful to aquatic life.

Hexanoic acid (142-62-1)	
LC50 Fish 1	306 - 334 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC 50 Fish 2	88 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

12.2. Persistence and Degradability

Caproic Acid 99% (142-62-1)	
Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

Caproic Acid 99% (142-62-1)	
Bioaccumulative Potential	Not established.
Hexanoic acid (142-62-1)	
Log Pow	1.88

12.4. Mobility in Soil No additional information available

12.5. Other Adverse Effects

Other Information : Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations.

Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.

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Ecology – Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION

In Accordance With ICAO/IATA/IMDG/DOT

14.1. UN Number

UN-No.(DOT) : 2829
DOT NA no. UN2829

14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Caproic acid
Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136
Hazard Labels (DOT) : 8 - Corrosive



Packing Group (DOT) : III - Minor Danger
DOT Special Provisions (49 CFR 172.102) : IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672)
T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / (1 + a (tr - tf))$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees Celsius of the liquid during filling

DOT Packaging Exceptions (49 CFR 173.xxx) : 154

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 241

14.3. Additional Information

Emergency Response Guide (ERG) : 153

Number

Other information : No supplementary information available.

Transport by Sea

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel

EmS-No. (1) : F-A

EmS-No. (2) : S-B

Air Transport

DOT Quantity Limitations Passenger : 5 L

Aircraft/Rail (49 CFR 173.27)

DOT Quantity Limitations Cargo Aircraft : 60 L
Only (49 CFR 175.75)

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations

Caproic Acid 99% (142-62-1)	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
Hexanoic acid (142-62-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the

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exemption rule

15.2 US State Regulations

Hexanoic acid (142-62-1)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: OTHER INFORMATION

Revision Date : 07/01/2016

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Skin Corr. 1C	Skin corrosion/irritation Category 1C
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H332	Harmful if inhaled
H402	Harmful to aquatic life

The data herein are based on our current knowledge and believed to be reliable. Acme-Hardesty Co., provides this information without any representation or warranty, expressed or implied, regarding its accuracy or correctness.

Users must make their own determination that handling, storage, use and disposal of the product in the anticipated manner is safe and appropriate. Because these actions of the user are out of our control, and may be beyond our knowledge, we do not assume responsibility and expressly disclaim liability for loss, damage, expense or any other claim arising out of or in any way connected with the handling, storage, use or disposal of the product or container.

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