



Material Safety Data Sheet
Caproic Acid

SECTION 1.1 – PRODUCT IDENTIFICATION

Product name	:	Caproic Acid
Molecular formula	:	C6 H12 O2
Molecular weight	:	116.16
CAS no.	:	142-62-1

SECTION: 1.2 – COMPANY IDENTIFICATION

Company Name: Indenta Chemicals (India) Pvt. Ltd.

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SECTION 2: HAZARD IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity	Category 4
Acute dermal toxicity	Category 4
Acute Inhalation Toxicity - Vapors	Category 4
Skin Corrosion/irritation	Category 1 B
Serious Eye Damage/Eye Irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Respiratory system.	

Label Elements

Signal Word

Danger

Hazard Statements

Harmful if swallowed

Harmful in contact with skin

Harmful if inhaled

Causes severe skin burns and eye damage

Causes serious eye damage
May cause respiratory irritation

Precautionary Statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area

Response

Call a POISON CENTER or doctor/physician if you feel unwell

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician if you feel unwell

Skin

Immediately call a POISON CENTER or doctor/physician
Wash contaminated clothing before reuse
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

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

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth
Do NOT induce vomiting

Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS No	Weight %
Caproic Acid	142-62-1	>95

SECTION 4: FIRST AID MEASURES

General Advice: Immediate medical attention is required. Show this safety data sheet to the doctor in attendance

Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin Contact: Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.

Ingestion: Do not induce vomiting. Call a physician or Poison Control Center immediately

Most important symptoms/effects: Causes burns by all exposure routes. . 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.

Notes to Physician: Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media: CO 2, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable Extinguishing Media: No information available

Flash Point: 104 °C / 219.2 °F

Method - No information available

Autoignition Temperature: 380 °C / 716 °F

Explosion Limits

Upper 9.3%

Lower 1.3%

Sensitivity to Mechanical Impact: No information available

Sensitivity to Static Discharge: No information available

Specific Hazards Arising from the Chemical:

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes.

Hazardous Combustion Products: Carbon monoxide (CO) Carbon dioxide (CO2) Thermal decomposition can lead to release of irritating gases and vapors.

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. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA Rating: Health: 3; Flammability: 1; Instability: 0; Physical Hazards: N/A

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

Environmental Precautions: Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

Methods for Containment and Clean Up: Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling: Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Do not ingest. Do not breathe vapors or spray mist.

Storage: Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area.

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Guidelines: This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Engineering Measures: Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment :

Eye/face Protection: 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. Tightly fitting safety goggles. Face-shield.

Skin and body protection: Long sleeved clothing.

Respiratory Protection: 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.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Light Yellow
Odor	Mild musty Characteristic
Odor Threshold	No information available
pH	No information available
Melting Point/Range	-3 °C / 26.6 °F
Boiling point/Range	202 - 203 °C / 395.6 - 397.4 °F
Flash Point	104 °C / 219.2 °F
Evaporation Rate	No information available
Flammability (Solid, gas)	Not applicable
Flammability or explosive limits	
Upper	9.3%
Lower	1.3%
Vapor Pressure	0.24 mbar @ 20 °C
Vapor Density	4.01 (Air = 1.0)
Relative Density	0.920
Solubility	Insoluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	380 °C / 716 °F
Decomposition Temperature	No information available
Viscosity	3.23 mPa.s @ 20 °C
Molecular Formula	C6H12O2
Molecular Weight	116.16

SECTION 10: STABILITY AND REACTIVITY

Reactive Hazard: None known, based on information available

Stability: Stable under normal conditions.

Conditions to Avoid: Incompatible products. Excess Heat.

Incompatible Materials: Strong oxidizing agents

Hazardous Decomposition Products: Carbon monoxide (CO), Carbon dioxide (CO₂), Thermal decomposition can lead to release of irritating gases and vapors

Hazardous Polymerization: Hazardous polymerization does not occur.

Hazardous Reactions: None under normal processing.

Section 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information:

Component information

Component	LD50 Oral	LD50 Dermal	LC 50 Inhalation
Caproic Acid	2050 µL/kg (Rat)	(Rat) 630 µL/kg (Rabbit)	4100 mg/m ³ /2h (Mouse)

Toxicologically Synergistic Products: No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation: Causes burns by all exposure routes.

Sensitization: No information available.

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

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Caproic Acid	142-62-1	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

Mutagenic Effects: No information available.

Reproductive Effects: No information available.

Developmental Effects: No information available

Teratogenicity: No information available.

STOT - single exposure Respiratory system

STOT - repeated exposure None known.

Aspiration hazard: No information available.

Symptoms / effects, both acute and delayed: 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

Endocrine Disruptor Information: No information available

Other Adverse Effects: The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

Section 12: ECOLOGICAL INFORMATION**Ecotoxicity**

Contains a substance which is: Harmful to aquatic organisms. The product contains following substances which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Caproic Acid	Not listed	88 mg/L LC50 96 h 306 – 334 mg/L LC50 96 h	Not listed	EC50 = 22 mg/L/24h

Persistence and Degradability: Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation: No information available

Mobility: Will likely be mobile in the environment due to its water solubility.

Component	<u>Log Pow</u>
Caproic Acid	1.92

Section 13: DISPOSAL CONSIDERATION

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.

SECTION 14: TRANSPORT INFORMATION**DOT**

UN-No UN2829

Proper Shipping Name Caproic acid

Hazard Class 8

Packing Group III

TDG

UN-No UN2829

Proper Shipping Name CAPROIC ACID

Hazard Class 8

Packing Group III

IATA

UN-No UN2829

Proper Shipping Name Caproic acid

Hazard Class 8

Packing Group III

IMDG/IMO

UN-No UN2829

Proper Shipping Name Caproic acid

Hazard Class 8

Packing Group III

15: OTHER REGULATORY INFORMATION

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Caproic acid	X	X	-	205-550-7	-		X	X	X	X	X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

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 exemption rule.

U.S. Federal Regulations:**TSCA 12(b):** Not applicable**SARA 313:** Not applicable**SARA 311/312 Hazardous Categorization**

Acute Health Hazard Yes

Chronic Health Hazard Yes

Fire Hazard No

Sudden Release of Pressure Hazard No

Reactive Hazard No

Clean Water Act: Not applicable**Clean Air Act:** Not applicable**OSHA:** Occupational Safety and Health Administration Not applicable**CERCLA**

Not applicable

California Proposition 65: This product does not contain any Proposition 65 chemicals.

State Right-to-Know:

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Caproic acid	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:** Slight risk, Grade 1**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class: D1B Toxic materials
 E Corrosive material
 D2B Toxic materials

SECTION 16: ADDITIONAL INFORMATION

This information is provided for documentation purposes only.

The information contained in this Certificate of Analysis and Material Safety Data Sheet is obtained from current and reliable sources. The information contained herein is true and to the best of Indenta Chemicals (India) Pvt. Ltd. knowledge. Nothing herein should be interpreted as a recommendation to infringe existing patents or violate any Laws or Regulation. Final determination of the suitability of the material is the sole responsibility of the user. Customers should purchase products from Indenta Chemicals (India) Pvt. Ltd. with the clear understanding that all products must be used at the customers own discretion and only after referencing Material Safety Data Sheets (MSDS) and all other relevant technical information specific to the product. Indenta Chemicals (India) Pvt. Ltd. shall not be held responsible for any damages to property or for any adverse physical effects (including injury or bodily harm) caused by insufficient knowledge or the improper use of a product. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property rights of third parties. As with any manufacturing process, Indenta Chemicals (India) Pvt. Ltd. strongly recommends small lab scale testing for evaluation purposes prior to full commercial manufacturing. The information on the Indenta Chemicals (India) Pvt. Ltd. website is obtained from current and reliable sources but makes no representation as to its comprehensiveness or accuracy. Nothing contained herein should be considered as a recommendation by Indenta Chemicals (India) Pvt. Ltd. as to the fitness for any use. As the ordinary or otherwise use(s) of this product is outside the control of Indenta Chemicals (India) Pvt. Ltd., no representation or warranty, expressed or implied is made as to the effect(s) of such use(s) (including damage or injury), or the results obtained. The liability of Indenta Chemicals (India) Pvt. Ltd. is limited to the value of the goods and does not include any consequential loss. Indenta Chemicals (India) Pvt. Ltd. shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon.

