



Material Safety Data Sheet

| HAZARD WARNINGS | RISK PHRASES | PROTECTIVE CLOTHING |
|---|---|---|
|  | Corrosive to eyes and skin on contact. Risk of serious damage to eyes. |  |

Section I. Chemical Product and Company Identification

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|------------------|--|---------------------------------|---|
| Chemical Name | n-Caprylic Acid | | |
| Catalog Number | O0027 | Supplier | TGI America 9211 N. Harbortgate St. Portland OR 1-800-423-8616 |
| Synonym | Octanoic Acid | | |
| Chemical Formula | CH ₃ (CH ₂) ₆ COOH | | |
| CAS Number | 124-07-2 | In case of Emergency Call | Chemtrec® (800) 424-9300 (U.S.) (703) 527-3887 (International) |

Section II. Composition and Information on Ingredients

| Chemical Name | CAS Number | Percent (%) | TLV/PEL | Toxicology Data |
|-----------------|------------|---------------------|----------------|---|
| n-Caprylic Acid | 124-07-2 | Min. 98.0 (GC,T) | Not available. | Rat LD ₅₀ (oral) 10080mg/kg Mouse LD ₅₀ (intravenous) 600mg/kg Rabbit LD ₅₀ (dermal) >5000mg/kg |

Section III. Hazards Identification

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| Acute Health Effects | Corrosive to skin, eyes, and respiratory system. Liquid or spray mist may produce tissue damage, particularly in mucous membranes of the eyes, mouth and respiratory tract. Skin contact may produce burns. Eye contact can result in corneal damage or blindness. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Corrosive materials may cause serious injury if ingested. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound. |
| Chronic Health Effects | CARCINOGENIC EFFECTS : Not available. MUTAGENIC EFFECTS : Not available. TERATOGENIC EFFECTS : Not available. DEVELOPMENTAL TOXICITY Not available. Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions. |

Section IV. First Aid Measures

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| Eye Contact | Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention. |
| Skin Contact | In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention. |
| Inhalation | If the victim is not breathing, perform mouth-to-mouth resuscitation. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention if respiration problems do not improve. |
| Ingestion | DO NOT INDUCE VOMITING. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. |

Section V. Fire and Explosion Data

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| Flammability | May be combustible at high temperature. | Auto-Ignition | Not available. |
| Flash Points | >109°C (228.2°F). | Flammable Limits | Not available. |
| Combustion Products | These products are toxic carbon oxides (CO, CO ₂). | | |
| Fire Hazards | Not available. | | |
| Explosion Hazards | Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. | | |
| Fire Fighting Media and Instructions | SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet. Consult with local fire authorities before attempting large scale fire-fighting operations. | | |

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Emergency phone number (800) 424-9300

Section VI. Accidental Release Measures

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| Spill Cleanup Instructions | Corrosive liquid. Stop leak if without risk. If the product is in its solid form: Use a shovel to put the material into a convenient waste disposal container. If the product is in its liquid form: Absorb with DRY earth, sand or other non-combustible material. DO NOT get water inside container. Absorb with an inert material and put the spilled material in an appropriate waste disposal. DO NOT touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all sources of ignition. Consult federal, state, and/or local authorities for assistance on disposal. |
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Section VII. Handling and Storage

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| Handling and Storage Information | CORROSIVE. Keep container dry. Keep away from heat. Mechanical exhaust required. When not in use, tightly seal the container and store in a dry, cool place. Avoid excessive heat and light. DO NOT ingest. Do not breathe gas/fumes/vapor/spray. Never add water to this product. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Treat symptomatically and supportively. Always store away from incompatible compounds such as oxidizing agents, reducing agents, alkalis (bases). |
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Section VIII. Exposure Controls/Personal Protection

Engineering Controls Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash station and safety shower is proximal to the work-station location.

Personal Protection Face shield. Lab coat. Vapor respirator. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. Be sure to use a MSHA/NIOSH approved respirator or equivalent.



Exposure Limits Not available.

Section IX. Physical and Chemical Properties

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| Physical state @ 20°C | Liquid. (Clear, colorless.) | Solubility | Very slightly soluble in water (0.068g/100g @ 20°C). Freely soluble in alcohol, chloroform, ether, carbondisulfide, petroleum ether, glacial acetic acid. |
| Specific Gravity | 0.91 (water=1) | Partition Coefficient | Not available. |
| Molecular Weight | 144.21 | Vapor Pressure | 1.3 kPa (@ 20°C) |
| Boiling Point | 237 to 238°C (458.6 to 460.4°F) | Vapor Density | 5 (Air = 1) |
| Melting Point | 16.5°C (61.7°F) | Volatility | Not available. |
| Refractive Index | 1.4280 @ 20°C | Odor | Unpleasant. |
| Critical Temperature | Not available. | Taste | Rancid. |
| Viscosity | Not available. | | |

Section X. Stability and Reactivity Data

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| Stability | This material is stable if stored under proper conditions. (See Section VII for instructions) |
| Conditions of Instability | Avoid excessive heat and light. |
| Incompatibilities | Reactive with oxidizing agents, reducing agents, alkalis (bases). |

Section XI. Toxicological Information

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| RTECS Number | RH0175000 |
| Routes of Exposure | Eye Contact. Ingestion. inhalation. |
| Toxicity Data | Rat LD ₅₀ (oral) 10080mg/kg Mouse LD ₅₀ (intravenous) 600mg/kg Rabbit LD ₅₀ (dermal) >5000mg/kg |
| Chronic Toxic Effects | CARCINOGENIC EFFECTS : Not available. MUTAGENIC EFFECTS : Not available. TERATOGENIC EFFECTS : Not available. DEVELOPMENTAL TOXICITY Not available. Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions. |
| Acute Toxic Effects | Corrosive to skin, eyes, and respiratory system. Liquid or spray mist may produce tissue damage, particularly in mucous membranes of the eyes, mouth and respiratory tract. Skin contact may produce burns. Eye contact can result in corneal damage or blindness. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Corrosive materials may cause serious injury if ingested. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound. |

Section XII. Ecological Information

Ecotoxicity Not available.

Environmental Fate Octanoic acid may be released into the environment in various waste streams from its production and use in the synthesis of various dyes, drugs, perfumes, antiseptics and fungicides, in ore separations, synthetic flavors, hydraulic fluids, machining oils, flotation agents, and as a wood preservative. If released to the atmosphere, octanoic acid is expected to exist solely in the vapor phase in the ambient atmosphere based on a measured vapor pressure of 3.7×10^{-3} mm Hg at 25 deg C. Vapor-phase octanoic acid is degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 1.9 days. If released to soil, octanoic acid is expected to have low mobility based on an estimated Koc of 1100. Volatilization of octanoic acid from dry soil surfaces is not expected to occur based on this compound's vapor pressure. An estimated Henry's Law constant of 8.9×10^{-7} atm-cu m/mole indicates that volatilization of octanoic acid from wet soil surfaces is not expected to be an important fate process. Biodegradation of octanoic acid in soil and water is expected to be an important fate process; octanoic acid reached 32.8% of its theoretical oxygen demand after 24 hours using an activated sludge inoculum. If released into water, octanoic acid's estimated Koc indicates that adsorption to suspended solids and sediment is expected to occur. Octanoic acid's pKa of 4.89 indicates that it will exist predominately in the ionized form under environmental pHs. Volatilization of octanoic acid from water surfaces is not expected to be an important fate process based on this compound's pKa and its estimated Henry's Law constant. The potential for bioconcentration of octanoic acid in aquatic organisms is high based on an estimated BCF of 120. Hydrolysis is not expected to be an important process due to the lack of hydrolyzable functional groups. Occupational exposure to octanoic acid may occur through inhalation of dust particles and dermal contact with this compound at workplaces where octanoic acid is produced or used. The general population will be exposed to octanoic acid via inhalation of ambient air, ingestion of food and drinking water, and dermal contact with food and other products containing octanoic acid.

Section XIII. Disposal Considerations

Waste Disposal Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.

Section XIV. Transport Information

DOT Classification Class 8: Corrosive material

PIN Number UN3265

Proper Shipping Name Corrosive liquid, acidic, organic, n.o.s.

Packing Group (PG) III

DOT Pictograms

**Section XV. Other Regulatory Information and Pictograms**

TSCA Chemical Inventory (EPA) This compound is **ON** the EPA Toxic Substances Control Act (TSCA) inventory list.

WHMIS Classification (Canada) Not available.

EINECS Number (EEC) 204-677-5

EEC Risk Statements R34- Causes burns.
R41- Risk of serious damage to eyes.

Japanese Regulatory Data Not available.

Section XVI. Other Information

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Validated on 1/8/2002.
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Notice to Reader

TCl laboratory chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our MSDS sheets are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated MSDS sheets for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, facial mask, fume hood). For proper handling and disposal, always comply with federal, state, and local regulations.