

RCT**Rierden Chemical & Trading Company****115 West Church Street****P.O. Box 7072****Libertyville, IL 60048****Tel (847) 816-9310 Fax (847) 816-6364****sales@rierdenchemical.com****Safety Data Sheet****Caprylic Capric Acid****I IDENTIFICATION**

Synonyms	Blend of: octanoic & decanoic acids; C ₈ & C ₁₀ fatty acids
CAS#	68937-75-7
Europe EC #	273-086-2
Material Use	lubricants, metal working fluids, corrosion inhibitor in antifreeze

EMERGENCY INFORMATION

In the U.S.A.	Call CHEMTREC	(800) 424-9300
In Canada	Call CANUTEC (collect)	(613) 996-6666

II HAZARD IDENTIFICATION

GHS Class (Category)	acute, oral (4)	skin irritant (1B)
Signal Words		DANGER
Hazard Statements	harmful if swallowed (H302)	causes severe skin burns & eye damage (H314)



WHMIS Class (Canada)	E
Key:	B 2 – Flash Point <38°C, B 3 – Flash Point >38°C & <93°C D 1 – Immediately Toxic, D 2 – Chronic Toxicity C – Oxidizing Substance, E – Corrosive

**GHS Precautionary Statements for Labelling**

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves and clothing of butyl or "Viton".
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.
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 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.
P310	Immediately call a POISON CENTER/doctor
P321	Specific treatment (see first aid section on this label).
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

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III COMPOSITION

	CAS NUMBER	%	TLV ppm/mg/m3	LD50 (mg/kg) ORAL	LD50 (mg/kg) SKIN	LD50 ppm INHALATION
Caprylic Acid (<i>Octanoic Acid</i>)	124-07-2	50-65%*	not listed	1283	>5000	not known
Capric Acid (<i>Decanoic Acid</i>)	334-48-5	35-50%*	not listed	3320	>5000	not known

* **NOTE:** May also contain small quantities (0.5% - 2.0%) of C₆ & C₁₂ fatty acids

IV FIRST AID

- SKIN:** *Wash immediately* with soap & plenty of water. Remove contaminated clothing. Do not reuse until laundered.
- EYES:** *Wash eyes immediately* with plenty of water, holding eyelids open. Seek medical assistance promptly if there is any persistent irritation.
- INHALATION:** Remove from contaminated area promptly. **CAUTION: Rescuer must not endanger himself!** If victim's breathing stops, administer artificial respiration and seek medical aid promptly.
- INGESTION:** Drink a glass of water followed by milk if available. Do not induce vomiting (NOTE below). Keep victim quiet. If vomiting occurs, lower victim's head below the hips to prevent inhalation of vomited material. Seek medical help if victim feels unwell.

NOTE: Inadvertent inhalation of vomited material may seriously damage the lungs. The danger of this is greater than the risk of poisoning through absorption of this relatively low-toxicity product. The stomach should only be emptied under medical supervision, after the installation of an airway to protect the lungs.

V FLAMMABILITY & FIRE FIGHTING

- Flash Point above 130°C / 266°F (closed cup)
- Autoignition Temperature above 300°C / 572°F
- Flammable Limits not known
- Combustion Products carbon monoxide, nitrogen oxides, highly irritating short-chain aldehydes
- Firefighting Precautions as for an oil fire **OR** as for materials sustaining fire; firefighters must wear SCBA
- Static Discharge cannot accumulate a static charge

VI ACCIDENTAL RELEASE MEASURES

- Leak Precaution dyke to control spillage and prevent environmental contamination
- Handling Spill recover free liquid with suitable pumps; absorb residue on an inert sorbent, sweep, shovel & store in closed containers for disposal

VII HANDLING & STORAGE

Store and use away from oxidizing agents and substances listed in Part X.

Avoid all contact with skin and wash work clothes frequently. An eye bath and safety shower should be available near the workplace.

VIII EXPOSURE CONTROL & PERSONAL PROTECTION

- | | | | |
|-------------|---|------------|------------|
| ACGIH TLV | not listed | ACGIH STEL | not listed |
| OSHA PEL | not listed | OSHA STEL | not listed |
| Ventilation | no special mechanical ventilation required | | |
| Hands | wear neoprene, nitrile or "Viton" gloves – <i>always confirm suitability with supplier</i> | | |
| Eyes | safety glasses with side shields or chemical goggles – <i>always protect eyes!</i> | | |
| Clothing | wear impermeable (hands, above) apron, boots, long sleeves, and a face shield if splashing is anticipated | | |

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IX PHYSICAL & CHEMICAL PROPERTIES

Odor & Appearance	clear, pale yellow, oily liquid; unpleasant, irritating rancid odour like limburger cheese
Odor Threshold	0.008ppm
Vapor Pressure	above 1mmHg / 0.13kPa (92°C/ 198°F) – <i>extremely low at ambient temperature</i>
Evaporation Rate (<i>Butyl Acetate = 1</i>)	not known – <i>not volatile</i>
Vapor Density (air = 1)	5 (<i>caprylic a.</i>); 6 (<i>capric a.</i>)
Boiling Point	237-268°C / 459-514°F
Freezing Point	3-6°C / 37-43°F
Specific Gravity	0.89-0.91 (20/20 °C)
Water Solubility	below 100 milligrams/litre (20°C / 68°F)
- in other solvents	soluble in hydrocarbons & many oxygenated solvents (ether, acetone, ethanol, etc.)
Log P _{o/w} (<i>Octanol/H₂O Partition Coefficient</i>)	2.92 (<i>caprylic a.</i>); 2.4 (<i>capric a.</i>)
Viscosity	not known – approx. 6centipoise (20°C / 68°F)
Ph	3.5 to 4 – <i>weakly acidic</i>
Molecular Weight	144 grams/mole (<i>caprylic a.</i>); 172 grams/mole (<i>capric a.</i>)

X REACTIVITY

Dangerously Reactive With	strong oxidizing agents, strong reducing agents
Also Reactive With	strong alkalis may cause dangerously rapid saponification may corrode some grades of steel and 304 stainless steel at temperatures above 190°C / 370°F
Chemical Stability	stable; will not polymerize
Decomposes in Presence of	not known
Decomposition Products	irritating short-chain aldehydes may form in fire
Mechanical Impact	not sensitive

XI TOXICITY INFORMATION**i. ACUTE EXPOSURE**

Skin Contact	irritating; corrosive if contact is prolonged
Skin Absorption	probably not absorbed through the skin; toxic effects unlikely by this route
Eye Contact	corrosive to eyes; may cause permanent damage
Inhalation	not known – mists must be treated as irritating or corrosive to nose, throat & lungs
Ingestion	not known; <i>presumably corrosive to mouth, throat and stomach – not a route of industrial exposure</i>

ii. CHRONIC EXPOSURE

General	repeated, brief contact likely to cause redness and dermatitis
Sensitizing	not a sensitizer
Carcinogen/Tumorigen	not known to be a tumorigen or a carcinogen in humans or animals
Reproductive Effect	no known effect on humans or animals
Mutagen	not known to be a mutagen or teratogen in humans or animals
Synergistic With	not known
Calculated LD ₅₀ (oral)	above 1700mg/kg (rat)
Calculated LD ₅₀ (skin)	>5000mg/kg (rabbit)
LC ₅₀ (inhalation)	not known

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XII ECOLOGICAL INFORMATION

Bioaccumulation readily & rapidly metabolized, will not bio accumulate
 Biodegradation *caprylic acid* readily biodegradable; 60% in 5 days, 69% & 90-100% in 20 days & others
capric acid readily biodegradable: 61% in 5 days; 70-100% in 30days
 Abiotic Degradation expected ½-life in air: <2 days (*caprylic acid*); <1.4 days (*capric acid*)
 Mobility in soil, water water insoluble; low mobility in soil & the water column

Aquatic Toxicity: caprylic acid

LC₅₀ (96 hr, fish) 110mg/litre (Brachydanio rerio), 310mg/litre (Oryzias latipes)
 LC₅₀ (24hr, crustacea) 170 & 900mg/litre (Daphnia magna), 240mg/litre (Artemia salina, 17hr)
 EC₅₀ (96hr, algæ) 144mg/litre (Nitzschia closterium)
 EC₅₀ microorganisms 260 & 7200mg/litre (Bacillus subtilis)

Aquatic Toxicity: capric acid

LC₅₀ (Fish 96 hr) 54mg/litre (Oryzias latipes), 95mg/litre (Leuciscus idus – 48hr)
 LC₅₀ (Crustacea, 48hr) 41mg/litre (Hyale plumosa gammarus), 65mg/litre (Daphnia magna – 24hr)
 EC₅₀ (Algae, 96hr) 15mg/litre (Pseudokirchnerella subcapitata); 0.34mg/litre (Nitzschia closterium – *marine diatom*) EC₅₀
 (Microorganisms) 8600mg/litre (Bifidobacterium bifido), 43mg/litre (Bacillus subtilis), 1016mg/litre (Methanothrix sp.)

XIII DISPOSAL CONSIDERATIONS

Waste Disposal **do not flush to sewer**; may be incinerated in approved facility with flue gas monitoring & scrubbing;
 biodigestion may be the most cost-effective means of disposal
 Containers **Drums** should be reused. Recondition and pressure test by a licensed reconditioner prior to re-use.
Pails must be vented and thoroughly dried prior to crushing and recycling.
IBCs (intermediate bulk containers): polyethylene bottle must be pressure tested & recertified at 30 months.
 Replace at 60 months (5 years). Steel containers must be inspected, pressure tested & recertified every 5 years.
Warning: never cut, drill, weld or grind on or near this container, even if empty.

XIV TRANSPORT INFORMATION**USA 49 CFR & Canada TDG**

Product Identification Number	UN3265
Shipping Name	corrosive liquid, acidic, organic, N.O.S. (octanoic acid)
Classification	Class 8; Packing Group III
Marine Pollution	not a marine pollutant
ERAP Required	No
Regulated Quantity (RQ)	not listed

**XV REGULATIONS**

Canada DSL	all components on inventory
U.S.A. TSCA	all components ACTIVE
Europe EINECS	all components on inventory

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SARAPhysical Hazards

- ☐ Explosive
- ☐ Flammable
- ☐ Oxidizer (liquid, solid or gas)
- ☐ Self-reactive
- ☐ Pyrophoric (liquid or solid)
- ☐ Pyrophoric Gas
- ☐ Self-heating
- ☐ Organic peroxide
- ☐ Corrosive to metal
- ☐ Gas under pressure (compressed gas)
- ☐ In contact with water emits flammable gas
- ☐ Combustible Dust
- ☐ Hazard Not Otherwise Classified

Chemical Hazards

- ☒ Acute toxicity (any route of exposure)
- ☒ Skin corrosion or irritation
- ☒ Serious eye damage or eye irritation
- ☐ Respiratory or skin sensitization
- ☐ Germ cell mutagenicity
- ☐ Carcinogenicity
- ☐ Reproductive toxicity
- ☐ Specific target organ toxicity (single or repeated ex.)
- ☐ Aspiration hazard
- ☐ Simple Asphyxiant
- ☐ Hazard Not Otherwise Classified

XVI OTHER INFORMATION**Date of Preparation****March 2014****Date of Revision****March 12, 2018, February 2019 (DM), July 2019 (DM)**Prepared for Rierden Chemical & Trading Company, by **Peter Bursztyn**.Revised for Rierden Chemical and Trading Company, by **HS&E Compliance Resources, Inc.**

With data from the Registry of Toxic Effects of Chemical Substances (RTECS), Hazardous Substance Data Base (HSDB), Cheminfo (CCOHS), OSHA, IUCLID Datasheets (European Chemical Substance Information System - ESIS), & others sources (below if used), as required/available

Last Page of SDS**PLEASE ENSURE THAT THIS MSDS IS GIVEN TO AND EXPLAINED TO PEOPLE USING THIS PRODUCT****EMERGENCY INFORMATION: Call CHEMTREC (800) 424 - 9300**