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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Product	Decanoic Acid (Capric Acid)	**Revision date**	2026-11-16
Version	1.0	**Brand**	Richest

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product name	Decanoic Acid (Capric Acid)
Synonyms	Decanoic acid; CAPRIC ACID; 334-48-5; n-Capric acid; n-Decanoic acid; Decoic acid
CAS No.	334-48-5
EC No.	206-376-4
Molecular formula	C10H20O2
Molecular weight	172.26 g/mol
Relevant identified uses	Raw material for caprate esters used in flavours and fragrances; Intermediate for medium-chain triglycerides (MCT) and food emulsifiers; Raw material for plasticizers, lubricants and metal soaps; Surfactant and personal care ingredient
Uses advised against	No specific uses advised against were identified in the reviewed sources.
Company	Richest Group
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Telephone	0086 21 5017 5386
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Website	www.richest-group.com
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SECTION 2: Hazards identification

GHS Classification	Skin Irrit. 2; Eye Irrit. 2; STOT SE 3 (respiratory tract irritation)
Pictogram(s)	GHS07
Signal word	Warning
Hazard statement(s)	H315 Causes skin irritation.; H319 Causes serious eye irritation.; H335 May cause respiratory irritation.
Precautionary statement(s)	P261
Other hazards	Emergency treatment: non-toxic ingestion; A skin irritant; Neat material highly irritating in rabbit eyes; Causes skin irritation in human volunteers in concentrations >1%; [HSDB] A skin, eye, mucous membrane, and upper respiratory tract irritant; [CAMEO] Safe when used as a flavoring agent in food; [JECFA] An irritant; [MSDSonline]

SECTION 3: Composition/information on ingredients

Component	Decanoic Acid (Capric Acid)
CAS No.	334-48-5
EC No.	206-376-4
Classification	Skin Irrit. 2; Eye Irrit. 2; STOT SE 3 (respiratory tract irritation)

SECTION 3: Composition/information on ingredients	
Concentration	C10 content ≥ 99.0%

SECTION 4: First-aid measures	
If inhaled	IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician and be prepared to transport the victim to a hospital. Provide proper respiratory protection to rescuers entering an unknown atmosphere.
In case of skin contact	IMMEDIATELY flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. If symptoms such as redness or irritation develop, IMMEDIATELY call a physician and be prepared to transport the victim to a hospital for treatment.
In case of eye contact	First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician. IMMEDIATELY transport the victim after flushing eyes to a hospital even if no symptoms (such as redness or irritation) develop.
If swallowed	DO NOT INDUCE VOMITING. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. Be prepared to transport the victim to a hospital if advised by a physician. If the victim is convulsing or unconscious, do not give anything by mouth, ensure that the victim's airway is open and lay the victim on his/her side with the head lower than the body. DO NOT INDUCE VOMITING.
Most important symptoms and effects	No data available
Indication of immediate medical attention	Treat symptomatically. Show this safety data sheet to medical personnel.

SECTION 5: Fire-fighting measures	
Suitable extinguishing media	Use extinguishing media appropriate for the surrounding fire.
Unsuitable extinguishing media	Fire Extinguishing Agents Not to Be Used: Water may not be effective.
Special hazards arising from the chemical	This chemical is combustible. (NTP, 1992)
Advice for firefighters	Wear self-contained breathing apparatus and protective clothing appropriate for the surrounding fire.

SECTION 6: Accidental release measures	
Personal precautions and emergency procedures	Avoid contact with the material. Ensure adequate ventilation. Wear appropriate personal protective equipment.
Environmental precautions	Prevent uncontrolled release to drains, soil and watercourses.
Methods for containment and cleaning up	Neutralizing Agents for Acids and Caustics: Sodium bicarbonate solution (USCG, 1999)

SECTION 7: Handling and storage	
Precautions for safe handling	Avoid contact with skin and eyes. Avoid formation or inhalation of dust, mist or vapour as applicable. Wash thoroughly after handling.
Conditions for safe storage, including incompatibilities	Keep container tightly closed in a cool, dry and well-ventilated place; keep away from heat and strong oxidizing agents.

SECTION 8: Exposure controls/personal protection	
Occupational exposure limit values	No data available
Biological limit values	No biological limit values were identified in the reviewed sources.
Appropriate engineering controls	Provide adequate ventilation. Eyewash facilities should be available where contact is possible.
Eye/face protection	Respirator, chemical safety goggles, rubber boots, and heavy rubber gloves. (USCG, 1999)
Skin and body protection	Respirator, chemical safety goggles, rubber boots, and heavy rubber gloves. (USCG, 1999)
Respiratory protection	Use suitable respiratory protection if exposure limits may be exceeded or dust, mist or vapour is generated.
Thermal hazards	No specific thermal hazards were identified in the reviewed sources; see Sections 5 and 10.

SECTION 9: Physical and chemical properties	
Physical state	Crystalline solid (flakes)
Colour	White to pale yellow
Odour	Characteristic fatty (rancid) odour
Melting point / freezing point	31–32 °C
Boiling point / boiling range	268–270 °C
Flammability	Combustible; not classified as a flammable solid
Explosion / flammability limits	No data available
Flash point	127 °C, closed cup
Auto-ignition temperature	> 250 °C
Decomposition temperature	No data available
pH	Weakly acidic (pKa ca. 4.9); saturated aqueous solution is weakly acidic
Viscosity	Not applicable (solid at 20 °C); molten product has low viscosity
Solubility	Approx. 0.15 g/L in water (20 °C), practically insoluble; soluble in ethanol, ether and most organic solvents
Partition coefficient n-octanol/water	log Pow: 4.09
Vapour pressure	Very low (< 0.1 hPa at 20 °C)
Density and/or relative density	0.886 g/cm³ at 40 °C (molten)
Relative vapour density	ca. 5.9 (Air = 1.0)
Particle characteristics	Flakes/prills

SECTION 10: Stability and reactivity	
Reactivity	Insoluble in water.
Chemical stability	Stable under recommended storage conditions.

SECTION 10: Stability and reactivity	
Possibility of hazardous reactions	DECANOIC ACID reacts exothermically to neutralize bases. Can react with active metals to form gaseous hydrogen and a metal salt. May absorb enough water from the air and dissolve sufficiently in it to corrode or dissolve iron, steel, and aluminum parts and containers.
Conditions to avoid	No data available
Incompatible materials	No data available
Hazardous decomposition products	When heated to decomposition it emits acrid smoke and irritating fumes.

SECTION 11: Toxicological information	
Acute toxicity	LD50 Rat oral 3320 mg/kg; LD50 Rat oral 3730 mg/kg /mix isomers/; LD50 Rat oral 15800 mg/kg /5% decanoic acid in 40% w/w ethanol/; LD50 Mouse iv 129 mg/kg
Toxicological summary	Safe for use in cosmetics, with qualifications
Health effects	Harmful if swallowed or inhaled. Material is irritating to tissues of mucous membranes, and upper respiratory tract, eyes and skin. (USCG, 1999)
Skin corrosion irritation	GHS classification: Skin Irrit. 2; Eye Irrit. 2; STOT SE 3 (respiratory tract irritation); H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
Serious eye damage irritation	GHS classification: Skin Irrit. 2; Eye Irrit. 2; STOT SE 3 (respiratory tract irritation); H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.

SECTION 12: Ecological information	
Ecotoxicity	LC50; Species: Xenopus laevis (African clawed frog, embryo); Conditions: freshwater, renewal, pH 7.0-7.8; Concentration: 24000 ug/L for 96 hr (23000-25000 ug/L) /> or =98% purity/; LC50 Oryzias latipes (Red Killifish) 31 mg/L/96 hr /In seawater; other conditions of bioassay not specified/
Persistence degradability	AEROBIC: The 5 day BOD of decanoic acid, concn 100 ppm, was determined to be 8.52 mmol/mmol decanoic acid using acclimated mixed microbial cultures in a mineral salt medium(1). Decanoic acid, present at 10,000 ppm, reached 45 to 53% and 46 to 54% of its theoretical BOD in 5 and 20 days, respectively, using a sewage inoculum(2).
Bioaccumulative potential	An estimated BCF of 3 was calculated in fish for decanoic acid(SRC), using a log Kow of 4.09(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).
Mobility in soil	The Koc of undissociated decanoic acid is estimated as 4,000 forthe free acid Kow of 4.09(1) and a regression-derived equation(2). According to a classification scheme(3), this estimated Koc value suggests that undissociated decanoic acid is expected to have slight mobility in soil.
Other adverse effects	The rate constant for the vapor-phase reaction of decanoic acid with photochemically-produced hydroxyl radicals has been estimated as 1.1X10-11 cu cm/molecule-sec at 25 °C(SRC) using a structure estimation method(1). This corresponds to an atmospheric half-life of about 1.4 days at an atmospheric concentration of 5X10+5 hydroxyl radicals per cu cm(1).
Environmental fate	ATMOSPHERIC FATE: According to a model of gas/particle partitioning of semivolatile organic compounds in the atmosphere(1), decanoic acid, which has a vapor pressure of 3.66X10-4 mm Hg at 25 °C(2), is expected to exist solely as a vapor in the ambient atmosphere.

SECTION 13: Disposal considerations

Product disposal methods	SRP: The most favorable course of action is to use an alternative chemical product with less inherent propensity for occupational exposure or environmental contamination. Recycle any unused portion of the material for its approved use or return it to the manufacturer or supplier.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal in accordance with local regulations.

SECTION 14: Transport information

UN Number (ADR/RID, IMDG, IATA)	Not regulated as dangerous goods
UN Proper Shipping Name	Not regulated as dangerous goods
Transport hazard class(es)	Not regulated as dangerous goods
Packing group	Not regulated as dangerous goods
Environmental hazards / Marine pollutant	Marine pollutant: No
Special precautions for user	No special precautions required during transport.

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product	No data available

SECTION 16: Other information

Full text of H-Statements	H315 Causes skin irritation.; H319 Causes serious eye irritation.; H335 May cause respiratory irritation.
Revision date	2026-11-16
Version	1.0
References	Supplier technical documents, public SDS/COA/TDS and regulatory sources reviewed. Public data citations are listed below. Public data sources: PubChem Decanoic Acid (CID 2969): https://pubchem.ncbi.nlm.nih.gov/compound/2969
Abbreviations	CAS: Chemical Abstracts Service; ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road; IMDG: International Maritime Dangerous Goods; IATA: International Air Transport Association; SDS: Safety Data Sheet.
Disclaimer	The information in this SDS applies to the specified product and is provided in good faith based on information available to Richest Group at the date of issue. It describes health, safety and environmental requirements and does not constitute a guarantee of product properties. Users must assess suitability and comply with applicable regulations.