

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name C-1095
Version # 01
Revision date 05-11-2011
CAS # 334-48-5
MSDS Number LC116
Product use Production of cutting oils, specialty soaps, and chain terminators.
Synonym(s) CAPRIC ACID
Manufacturer The Procter & Gamble Company
Procter & Gamble Chemicals
Sharon Woods Innovation Center
11530 Reed Hartman Highway
Cincinnati, Ohio 45241
1-800-477-8899 or 1-513-626-6882
PGChemMSDS.IM@pg.com
CHEMTREC: 1-800-424-9300 U.S. and Canada
CHEMTREC: 1-703-527-3887 For calls originating elsewhere

2. Hazards Identification

Emergency overview CAUTION: EYE AND SKIN IRRITANT.
If product is heated, vaporization can occur. Eye, skin, and upper respiratory irritation can occur.

Potential health effects

- Eyes** May cause severe but transient eye irritation.
- Skin** Prolonged skin exposure may cause severe irritation.
- Inhalation** May elicit pulmonary irritation if mist or vapors are formed. Coughing. Difficulty in breathing.
- Ingestion** May cause gastrointestinal irritation.

3. Composition / Information on Ingredients

| Components | CAS # | Percent |
|---------------|----------|---------|
| DECANOIC ACID | 334-48-5 | 98-100 |

4. First Aid Measures

First aid procedures

- Eye contact** Flush thoroughly with water for at least 15 minutes. Get medical assistance.
- Skin contact** Wash the skin immediately with soap and water.
Remove contaminated clothing.
Wash clothing separately before reuse.
Get medical attention.
- Inhalation** If the affected person is not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
- Ingestion** Remove material from mouth.
Drink plenty of water.
DO NOT induce vomiting. Get medical attention immediately.
Never give anything by mouth to a victim who is unconscious or is having convulsions.

5. Fire Fighting Measures

Extinguishing media

Suitable extinguishing media SMALL FIRES: Use CO2 or dry chemical.
LARGE FIRES: Use foam.

Unsuitable extinguishing media Do not use water as an extinguisher.

Protection of firefighters

Specific hazards arising from the chemical Does not decompose up to 400° F (204° C).
Thermal decomposition or burning may produce carbon monoxide and/or carbon dioxide.

Protective equipment and precautions for firefighters Wear self-contained breathing apparatus and protective clothing.

Special protective equipment for fire-fighters Wear self-contained breathing apparatus and protective clothing.

Fire fighting equipment/instructions Not available.

Specific methods Cool containers with flooding quantities of water until well after fire is out.

6. Accidental Release Measures

Personal precautions An appropriate NIOSH/MSHA approved respirator should be used if a mist or vapor is generated.
Wear protective gloves. Wear eye/face protection.
Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Environmental precautions Minimize contamination of drains, surface and ground waters.

Methods for cleaning up Transfer product to suitably labeled containers for disposal at an approved site. Residues and small spillages may be washed away with water and detergent.

7. Handling and Storage

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Since emptied containers retain product residue, follow label warnings even after container is emptied. Keep away from sources of ignition.

Storage Keep away from possible contact with incompatible substances.
Store in acid resistant vessels such as stainless steel, aluminum, or steel coated with resin lining such as Lithcote LC-19 or Kanigen.

Specific uses Follow bulk handling and storage procedures as noted above.

8. Exposure Controls / Personal Protection

Engineering controls Use local exhaust ventilation.
Mechanical - may be necessary if working at elevated temperatures or in enclosed areas.

Personal protective equipment

General Observe good industrial hygiene practices.
Avoid breathing (heated) vapors.

Boots. Apron. Eye wash fountain and emergency showers are recommended. Wear suitable protective clothing.

Eye / face protection Goggles or face shield with goggles, dependent upon potential exposure.

Skin protection Rubber or plastic gloves.
Dependent upon degree of potential exposure, additional personal protective equipment may be required, such as chemical boots and full protective clothing.

Respiratory protection None required for ambient temperature, although an appropriate NIOSH/MSHA approved air-purifying respirator should be used if a mist or vapor is generated. A NIOSH/MSHA approved self-contained breathing apparatus or air-supplied respirator is recommended if the concentration exceeds the capacity of cartridge respirator. **WARNING:** Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

9. Physical & Chemical Properties

Appearance Water white to Yellow

Physical state Liquid.

| | |
|--|---|
| Form | Liquid. |
| Color | Water white to Yellow. |
| Odor | Musty, Rancid. |
| pH | Not available. |
| Vapor pressure | <= 1 mm Hg @ 72 F (22.2 C) |
| Boiling point | >= 450 °F (>= 232.2 °C) @ 760 mm Hg (101.3kPa) |
| Melting point/Freezing point | 89.6 °F (31.5 °C) / 89.6 °F (32 °C) Approximately |
| Solubility (water) | Negligible @ 72 F |
| Relative density | 0.9 @22/22 C |
| Flash point | 305 °F (151.7 °C) Pensky-Martens Closed Cup |
| Auto-ignition temperature | Not available. |
| Viscosity | 2.5 mPa's approx. |
| Partition coefficient (n-octanol/water) | 4.1 |

10. Chemical Stability & Reactivity Information

| | |
|---|---|
| Chemical stability | Stable at normal conditions. |
| Conditions to avoid | None known. |
| Materials to avoid | Strong oxidizing agents. |
| Hazardous decomposition products | Does not decompose up to 400° F (204° C). Thermal decomposition or burning may produce carbon monoxide and/or carbon dioxide. |
| Hazardous polymerization | Hazardous polymerization does not occur. |

11. Toxicological Information

Toxicological data

Product

DECANOIC ACID (334-48-5)

Test Results

Acute Dermal LD50 Rabbit: > 5000 mg/kg
 Acute Dermal LD50 Rabbit: >= 5 g/kg
 Acute Oral LD50 Rat: >= 10 g/kg

Further information

DECANOIC ACID:
 Acute Oral Tox - The LD50 for male albino rats was greater than 10.0 g/kg of body weight.

Eye Safety (Rabbits)
 Moderate eye irritation resulted following the administration of 0.1 ml of the material to the eyes of the animals. Corneal opacity and iritis were also observed.

Skin Safety: The administration of undiluted decanoic acid, 95%, to the intact skin of rabbits for 4 hrs. produced moderate primary irritation at 48 hrs.

Repeated application of a solution of decanoic acid in n-propanol (1M) to human skin under occlusive patch produced irritation. The severity of the reaction was a function of the exposure time and concentration.

12. Ecological Information

Ecotoxicological data

Product

DECANOIC ACID (334-48-5)

Test Results

Microbial inhibition: None at 10,000 mg/l
 LC50 Bluegill (*Lepomis macrochirus*): 18.9 mg/l
 LC50 Gammarus (*Hyale plumulosa*): 41 mg/l
 LC50 Red killifish (*Oryzias latipes*): 31 mg/l in seawater
 LC50 Red killifish (*Oryzias latipes*): 20 mg/l in freshwater
 NOEC Bluegill (*Lepomis macrochirus*): 10 mg/l

Partition coefficient 4.1

13. Disposal Considerations

Disposal instructions Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.
Do not dispose of via sinks, drains or into the immediate environment.

Contaminated packaging Contaminated packaging - observe local regulations.

14. Transport Information

DOT

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2)

Not regulated

DEA Essential Chemical Code Number

Not regulated

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Not regulated

DEA Exempt Chemical Mixtures Code Number

Not regulated

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical No

Inventory status

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|--|-------------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | Yes |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| Switzerland | Switzerland FOPH | No |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - New Jersey Community RTK (EHS Survey): Reportable threshold

US - Pennsylvania RTK - Hazardous Substances: Listed substance

Contains no Pennsylvania Right To Know hazardous substances

16. Other Information

Further information

HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings

Health: 0
Flammability: 1
Physical hazard: 0

NFPA ratings

Health: 0
Flammability: 1
Instability: 0

Bibliography

Stillman, M.A. et al, Relative Irritancy of Free Fatty Acids of Different Chain Length. Contact Dermatitis, 1, 65 (1975).

Swisher, R.D., Surfactant Biodegradation, Marcel Dekker, Inc. New York, 1970.

"Interspecies Comparisons of Skin Irritancy", by G.A. Nixon, C.A. Tyson and W.C. Wertz; Tox & Appld. Pharm. 31: 481-490 (1975).

"Safety Studies on a Series of Fatty Acids", by G.B. Briggs, R.L. Doyle and J.A. Young; Amer. Ind. Hyg. Assoc. J.; 251-253 (April 1976).

BIBRA toxicity profile (1988) n-Octanoic acid.

Acute Toxicity and Irritation Studies on a Series of Fatty Acids. J. Am. Oil Chem. Soc., 56(1979), p.760A.

Disclaimer

The submission of the MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied are for use only in connection with occupational safety and health.

The information contained herein has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company's knowledge. The information relates to the specific product designated herein, and does not relate to use in combination with any other material of any other process. Procter & Gamble assumes no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the controlled product.

Issue date

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