

PURAC Lactic Acid 88% FCC

Issue date 06/28/2018

Reviewed on 09/12/2018

1. Identification

Product Identifier

Name of the product: Lactic Acid 88% FCC
CAS Number: 79-33-4 (general 50-21-5)

Recommended Use: Food flavoring

• Details of the Supplier of the Safety Data Sheet:

• Manufacturer/Supplier:

Ramsay Browne Chemical & Company PO Box 6425 Moraga, CA 94570

General Number: (925) 280-1661

• Emergency telephone number: (925) 280-1661

2. Hazard(s) Identification

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

Classification of the substance or mixture:



- GHS05 Corrosion OSHA Regulatory Status
- **Signal Word:** Danger
- **Hazard Statements:** Causes skin irritation. Causes serious eye damage.
- Precautionary Statements:
- **Prevention:** Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
- **Eyes:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
- **Skin:** IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs, get medical advice/attention. Take off contaminated clothing and wash before re-use.
- **Main Symptoms:** Causes severe damage to eyes: Burning feeling and temporary redness, pain. Causes skin irritation: Itching, Redness.



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2. Hazard(s) Identification (continued)

- **Environmental Hazard:** Contains no substances known to be hazardous for the environment.
- Interactions with Other Chemicals: Incompatible materials: Oxidizing agents.
- Hazards Not Otherwise Classified (HNOC): None Known.
- **Unknown Toxicity:** 0% of the mixture consists of ingredient(s) of unknown toxicity.

3. Composition / Information on ingredients

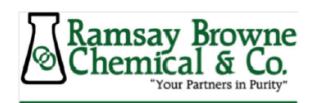
- **Chemical Characterization:** Substances
- CAS No. Description: 79-33-4 Lactic Acid

4. First-aid measures

- **General Advice:** Keep person warm and at rest. If symptoms persist or if in doubt in any case, seek medical advice. Wash contaminated clothing before re-use.
- **Eye Contact:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Consult a physician.
- **Skin Contact:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician.
- Ingestion: Rinse mouth. Get medical attention immediately if symptoms occur.
- **Inhalation:** Move to fresh air. Get medical attention immediately if symptoms occur.
- Notes to Physician: Treat symptomatically.
- **Protection of First-aiders:** Use personal protective equipment. Avoid contact with skin, eyes and clothing.

5. Firefighting measures

- Flammable Properties: No information available.
- Flash Point: Not applicable
- Autoignition Temperature: > 400°C solution (93%)
- **Suitable Extinguishing Media:** CO2, water spray, foam, dry powder.
- **Special Hazard:** None in particular.
- Advice for Firefighters: Wear self-contained breathing apparatus and protective suit.
- **Additional Information:** Move containers from fire area if possible. Keep containers and surroundings cool with water spray. Prevent fire extinguishing water from contaminating surface water or ground water system.



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6. Accidental release measures

- **Personal precautions:** Evacuate personnel to safe area. Do not touch or walk through spilled material. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists. Ensure adequate ventilation.
- **Environmental precautions:** Should not be released into the environment. Do not allow into surface water or ground water system.
- Methods and materials for containment and cleaning up: Large amounts: Prevent further leakage or spillage if safe to do so. Dike to collect large amounts. Cover with a plastic sheet. Use a non-combustible material like vermiculite, sand or earth to soak up product. Sweep or shovel into suitable containers for disposal. Following product recovery, flush area with water. Small amounts: Wipe up with absorbent material (e.g. cloth, fleece). After cleaning, flush away traces with water. Never return spills to original containers for re-use.

7. Handling and storage

- **Handling:** Handle in accordance with good industrial hygiene and safety practices. Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Ensure adequate ventilation. Wash hands thoroughly after handling.
- **Storage:** Store in accordance with local regulations. Keep containers closed in a cool, well-ventilated area. Keep at temperatures below 200°C/392°F. Incompatible with oxidizing agents.

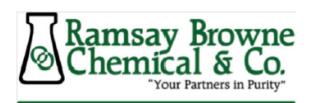
8. Exposure controls / personal protection

- **Exposure Guidelines:** Contains no substances with occupational exposure limit values.
- Engineering Controls: Ensure adequate ventilation. Keep at temperatures below 200°C/392°F. Ensure eyewash stations and safety showers are close to the workstation location.
- Personal Protective Equipment:





- **Eye protection:** Safety glasses.
- **Hand protection:** protective gloves, butyl rubber, thickness .5mm. Breakthrough time > 8 hours.
- **Skin and body protection:** long sleeved clothing.



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8. Exposure controls / personal protection (continued)

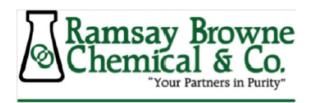
• **Respiratory protection:** In case of inadequate ventilation, wear respiratory protection.

9. Physical and chemical properties

- **Physical State @ 20°C:** Liquid
- **Appearance**: Clear
- Color: Colorless/yellowish
- Odor: Sour
- **pH**: < 1.2 (@25°C)
- Melting/Freezing Point: Melting Point 18°C (64°F)/Freezing Point No information
- **Boiling Point/boiling range:** 120-130°C (249-266°F) @ 1013 hPa
- Flash Point: Not applicable
- **Evaporation Rate:** Not applicable
- Flammability (solid, gas): Not applicable
- Flammability Limits in Air: Not determined
- Explosion Limits: Not applicable
- **Vapor Pressure:** Not applicable
- **Vapor Density:** Not applicable
- Relative Density: Not determined
- Water Solubility: Miscible
- Partition coefficient (n-octanol/water): Not determined
- Autoignition Temperature: > 400°C (solution 93%)
- **Decomposition Temperature:** > 200°C / > 392°F
- Viscosity, dynamic: 5-60 mPa.s (@25°C)
- **Explosive properties:** Not applicable
- **Oxidizing properties:** Not applicable
- **Density:** 1.2/cm3
- **Surface Tension:** 44-50 (mN/m @ 50-9)%)

10. Stability and reactivity

- **Stability:** Stable under recommended storage conditions.
- Materials to Avoid: Oxidizing agents.
- Conditions to avoid: Temperatures above 200°C/392°F.
- **Hazardous Decomposition Products:** None under normal use.



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10. Stability and reactivity (continued)

- Hazardous Polymerization: None known.
- Hazardous reactions: No information available.

11. Toxicological information

- Acute Toxicity:
- **Ingestion:** No known effect (LD50 Oral, rat female 3542 mg/kg

Oral, rat male 4936 mg/kg)

- **Skin contact:** No known effect (LD50 Dermal, rabbit: >2000 mg/kg)
- **Inhalation:** No known effect (LC50 Inhalation, Rat, >7.94 mg/L 4h)
- Primary irritant effect:
- On the skin: Causes skin irritation.
- **On the eyes:** Strong irritant with the danger of severe eye damage.
- **Sensitization:** No sensitizing affects known.
- **Aspiration hazard:** No known effect.
- Chronic Toxicity:
- Carcinogenicity: Contains no ingredient listed as a carcinogen.
- Germ cell mutagenicity: Not known to cause heritable genetic damage.
- Reproductive toxicity: Not known to cause birth defects or have a deleterious
 effect on a developing fetus. Not known to adversely affect reproductive functions
 and organs.
- **STOT-single exposure:** No known effect.
- **STOT-repeated exposure:** No known effect.

12. Ecological information

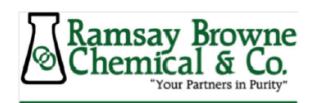
- **Ecotoxicity Effects:** Contains no substances known to be hazardous for the environment.
- Aquatic Toxicity:
- **Toxicity to algae:** EC50: >2.8 g/L 72h Pseudokirchnrella subcapitata.

EC50: 3.5 g/L 70h Pseudokirchnrella subcapitata.

• Toxicity to fish: LC50: 130 mg/L 96h Oncorhynchus mykiss

LC50: 320 mg/L 96h Danio rerio.

• **Toxicity to microorganisms:** LC50: >100 mg/L 3h



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12. Ecological information (continued)

- **Toxicity to daphnia & other invertebrates:** EC50: 130 mg/L 48h Daphnia magna EC50: 250 mg/L 48h Daphnia magna
- **Persistence and Degradability:** Readily biodegradable.
- **Bioaccumulative potential:** Does not bioaccumulate.
- Mobility in Soil: No information available.
- **General Notes:** Water hazard Class 3 (self-assessment). Do not allow product to reach ground water, water course or sewage system, even in small quantities.
- **PBT and vPvB assessment:** Not considered to be persistent, bioaccumulative and toxic.
- **Other adverse effects:** No information available.

13. Disposal considerations

- Waste Disposal Methods: Dispose of in accordance with local regulations.
- **Contaminated packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

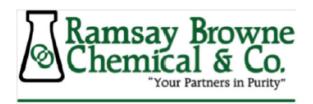
According to US DOT, IMDG, ICAO/IATA, ADR. Not regulated

15. Regulatory information

- International Inventories:
- TSCA: ListedDSL: Listed
- **NDSL:** Not Listed

TSCA – United States Toxic Substances Control Act Section 8(b) Inventory DSL/NDSL – Canadian Domestic Substances List/Non-Domestic Substances List

- Federal Regulations:
- SARA 31/312 Hazardous Categorization:
- Acute Health Hazard: No
 Chronic Health Hazard: No
- Fire Hazard: No
- Sudden Release of Pressure Hazard: No
- Reactive Hazard: No
- Clean Water Act: This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)



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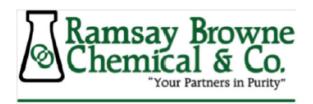
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15. Regulatory information (continued)

- **CERCLA:** This material, as supplied, does not contain substances regulated as a hazardous substance under the Comprehensive Environmental Responsation Compensation and Liability Act (CERCLA) (40 CFR 302)
- State Regulations:
- **California Proposition 65:** This product does not contain any Proposition 65 chemicals.
- U.S. State Right-to-Know Regulations: No information available.
- Other Information: No information available.
- International Regulations:
- **Canada:** No information available.

16. Other information

- Abbreviations/acronyms:
- ACGIH TLV: American Conference of Governmental Industrial Hygienists Threshold Limit Value
- OSHA PEL: Occupational Safety and Health Administration Permissible Exposure Limits
- NIOSH IDLH: National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health
- **OSHA:** Occupational Safety and Health Administration
- **IARP:** International Agency for Research on Cancer
- **NTP:** National Toxicity Program
- **SARA:** Superfund Amendments and Reauthorization Act
- **ACGIH:** American Conference of Governmental Industrial Hygienists
- **CFR:** U.S. Code of Federal Regulations
- **NFPA:** National Fire Protection Association
- HMIS: Hazardous Materials Identification System
- ADR: Accord europeen relatif au transport international des marchandises Dangereuses par Route
- **DOT**: Department of Transport
- **IMDG:** International Maritime Dangerous Goods Code
- **IATA:** International Air Transport Association
- ICAO: International Civil Aviation Organization



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16. Other information (continued)

Disclaimer: The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.