



SAFETY DATA SHEET

Version 5

1. Identification of the Substance / Preparation and of the Company / Undertaking

Product Name Lactic Acid 88% FG
Product Code 32764
UN/ID No UN3265
Recommended Use Industrial, Manufacturing or Laboratory use.
Restrictions on Use None known

Manufacturer

Hawkins, Inc., 2381 Rosegate, Roseville, MN 55113 (612-331-6910)

Emergency Telephone:

CHEMTREC (US): 1-800-424-9300

2. Hazards Identification

GHS - Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Corrosive to metals	Category 1

Hazards not otherwise classified (HNOC)

Not applicable

Label elements



Signal Word:

Danger

Hazard Statements:

- Causes skin irritation
- Causes serious eye damage
- May be corrosive to metals

Precautionary Statements:

- Wash face, hands and any exposed skin thoroughly after handling
- Keep only in original container
- Wear protective gloves and eye/face protection
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- Immediately call a POISON CENTER or doctor/physician
- 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 reuse
- Absorb spillage to prevent material damage
- P406 - Store in corrosion resistant container with a resistant inner liner

3. Composition / Information on Ingredients

Chemical name	CAS No.	Weight-%
(S)-Lactic Acid	79-33-4	87.1-92.4
Water	7732-18-5	Balance

Any concentration shown as a range is due to batch variation or the exact percentage has been withheld as a trade secret.

4. First Aid Measures

Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical advice/attention.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).
Most important symptoms and effects, both acute and delayed	
Symptoms	Burning. Redness. May cause redness and tearing of the eyes. May cause blindness.
Indication of any immediate medical attention and special treatment needed	
Note to physicians	Treat symptomatically.

5. Fire-fighting Measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	No information available.
Explosion Data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required.
Other information	Refer to protective measures listed in Sections 7 and 8.
Methods and material for containment and cleaning up	
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

7. Handling and Storage

Precautions for safe handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.
Incompatible materials	Oxidizing agent. Strong acids. Strong bases.

8. Exposure Controls / Personal Protection**Control parameters**

Exposure Limits	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
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Appropriate engineering controls

Engineering controls	Showers Eyewash stations Ventilation systems.
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Individual protection measures, such as personal protective equipment

Eye/face protection	Tight sealing safety goggles.
Hand protection	Wear suitable gloves. Impervious gloves.
Skin and body protection	Wear suitable protective clothing. Long sleeved clothing.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
Environmental exposure controls	Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains.
General hygiene considerations	Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing.

9. Physical and Chemical Properties**9.1. Information on basic physical and chemical properties**

Physical State:	Liquid	Odor:	Slight, Pungent
Appearance:	Clear	Odor Threshold:	No information available
Color:	Colorless to light yellow		

Property	Values	Remarks • Method
pH:		No information available
Salt Out Point:		No information available
Melting Point/Freezing Point:	< -80 °C / -112 °F	
Boiling Point/Boiling Range:		No information available
Flash Point:		No information available
Evaporation Rate (BuAc=1):		No information available
Flammability (solid, gas)		No information available
Flammability Limits in Air:		No information available
Upper Flammability Limit:		Lower Flammability Limit:
Vapor Pressure (mm Hg):		No information available
Vapor density (Air =1)		No information available
Specific Gravity (H₂O=1):	1.2	
Specific Gravity (2nd value):		
Water Solubility:	Miscible in water	
Solubility(ies):		No information available
Partition Coefficient (n-octanol/water)		No information available
Autoignition Temperature:		No information available
Decomposition Temperature:		No information available
Kinematic Viscosity:		No information available
Dynamic Viscosity:		No information available

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Oxidizing Properties: No information available
Explosive Properties: Not considered to be an explosion hazard

9.2. Other information

Softening Point: No information available
Molecular Weight: 90.08
VOC Content(%): No information available
Liquid Density No information available
Bulk density No information available

10. Stability and Reactivity

Reactivity No information available.
Chemical stability Stable under normal conditions.
Possibility of hazardous reactions None under normal processing.
Conditions to avoid Exposure to air or moisture over prolonged periods. Extremes of temperature and direct sunlight.
Incompatible materials Oxidizing agent. Strong acids. Strong bases.
Hazardous decomposition products Carbon monoxide. Carbon dioxide (CO₂).

11. Toxicological Information

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
Eye contact Specific test data for the substance or mixture is not available. Severely irritating to eyes. Causes serious eye damage. May cause burns. May cause irreversible damage to eyes. (based on components).
Skin contact Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).
Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. Burning. May cause blindness. May cause redness and tearing of the eyes.

Numerical measures of toxicity

No information available

Acute Toxicity:

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 4,036.80 mg/kg
ATEmix (dermal) 2,166.70 mg/kg

Unknown Acute toxicity 92.4 % of the mixture consists of ingredient(s) of unknown toxicity

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
92.4 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
92.4 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
92.4 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical name	Oral LD ₅₀ :	Dermal LD ₅₀ :	LC ₅₀ (Lethal Concentration):
(S)-Lactic Acid 79-33-4	= 3730 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-
Water 7732-18-5	> 90 mL/kg (Rat)	-	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Irritating to skin.

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Serious eye damage/eye irritation	Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Other Adverse Effects:	No information available.
Aspiration hazard	No information available.

12. Ecological Information

Ecotoxicity The environmental impact of this product has not been fully investigated.

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
(S)-Lactic Acid 79-33-4	-	320: 96 h Brachydanio rerio mg/L LC50 semi-static 100 - 180: 96 h Lepomis macrochirus mg/L LC50 static 100 - 180: 96 h Oncorhynchus mykiss mg/L LC50 static	-	240: 48 h Daphnia magna mg/L EC50 180 - 320: 48 h Daphnia magna mg/L EC50 Static

Persistence and Degradability: No information available.
Bioaccumulation: There is no data for this product.

Component Information

Chemical name	Partition Coefficient:
(S)-Lactic Acid 79-33-4	-0.62

Other Adverse Effects: No information available.

13. Disposal Considerations

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging Do not reuse empty containers.

14. Transport Information

DOT

Proper shipping name CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (LACTIC ACID)
Hazard Class 8

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UN/ID No
Packing Group
Description

UN3265
II
UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (LACTIC ACID), 8, PG II



15. Regulatory Information

International Inventories

AICS Complies
TSCA Complies
DSL/NDSL Complies
EINECS/ELINCS Complies
ENCS Complies
IECSC Complies
KECL Complies
PICCS Complies

Chemical name	AICS	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS
(S)-Lactic Acid	Present	Present ACTIVE	Present	-	Present	-	Present	Present [28382]	Present	Present
Water	Present	Present ACTIVE	Present	-	Present	-	Present	Present [32224]	Present	Present

Inventory Legend

AICS - Australian Inventory of Chemical Substances
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

RESTRICTIONS - REACH TITLE VII No information available

US Federal Regulations

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard Yes
Chronic health hazard No

Fire hazard	No
Sudden release of pressure hazard	No
Reactive hazard	No

16. Other Information

Prepared By: HSE Department
Issue Date: 24-Apr-2012
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Revision Note: Reviewed and Re-issued

Disclaimer:

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet