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原材料说明 MATERIAL SPECIFICATION

原材料 Material : LACTIC ACID 80% FOOD GRADE

号码 Batch No : L1803290562 配方 Formula : C₃H₆O₃

分子量 Molecular Weight : 90.08

外表 Appearance : SLIGHTLY YELLOWISH LIQUID

包装 Package : IN 25KG PLASTIC DRUM

CONTENT	SPECIFICATIONS	TEST RESULT
Assay	Min 80.0%	80.2%
Fresh color	50 - 100apha	70apha
Stereo chemical purity	Min 95%	95%
Density	1.18-1.20 g/cm ³ at 20 °C	1.19 g/cm ³
Chloride	Max 20ppm	< 20 ppm
Cyanide	Max 5 ppm	< 5 ppm
Iron	Max 10 ppm	< 10 ppm
Heavy Metals	Max 10 ppm	< 10 ppm
Arsenic	Max 3 ppm	< 3 ppm
Lead	Max 2 ppm	< 0.5 ppm
Sulfate	Max 50 ppm	< 50 ppm
Sulfate ash	Max 0.1%	< 0.1%
Mercury	Max 1 ppm	< 1 ppm
Citrate, Oxalate, Phosphate, or Tartrate	Passes FCC test	Passed FCC test
Reducing sugars	Passes FCC test	Passed FCC test

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MSDS FOR LACTIC ACID 80% FOOD GRADE

Section 1- Chemical Product

Product Name: Lactic acid

Synonyms: 2-Hydroxypropanoic acid; Milk acid; DL-Lactic acid; Racemic lactic acid; alpha-Hydroxypropionic acid; 2-Hydroxy-2-methylacetic acid.

Use of the Substance: To be used as a/an Acidulant, Acidity Modifier, Flavour, Antioxidant, Stabiliser, Preservative or Bactericidal Agent in the food feed industries.

Section 2- Composition Information on Ingredients

Chemical Name	CAS#	Percent (%)	EINECS/ELINCS
Lactic acid	50-21-5	80-88	200-018-0
Water	7732-18-5	12-20	231-791-2

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless to slight yellow liquid. Danger! Causes digestive and respiratory tract burns. Causes eye and skin irritation and burns. Corrosive to metal.

Target Organs: Respiratory system, gastrointestinal system, eyes, skin.

POTENTIAL HEALTH EFFECTS

Eye: May cause irreversible eye injury. Causes severe eye irritation and burns.

Skin: Causes severe skin irritation and burns. Not expected to cause an allergic skin reaction. The severity of injury depends on the concentration of the solution and the duration of exposure.

Ingestion: Causes severe digestive tract burns with abdominal pain, vomiting, and possible death.

Inhalation: Causes severe respiratory tract irritation with possible burns. Material has a very low vapor pressure and inhalation exposures are not expected unless material is heated or misted.

Chronic: Harmful effects were not observed in rats dermally exposed to a cosmetic product which contained a small amount of lactic acid for 13 weeks. No ill effects were observed in 2 dogs given 600-1600 mg/kg lactic acid orally 42 times over 2.5 months.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Ingestion: If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Will burn if involved in a fire.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam. Solid streams of water may be ineffective and spread material.

Flash Point: > 112 deg C (> 233.60 deg F)

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 2; Flammability: 1; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into

storm sewers and ditches which lead to waterways. Do not use metal tools.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Keep away from strong bases and metals. Do not use with metal spatula or other metal items. Do not breathe vapor or mist.

Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Lactic acid	none listed	none listed	none listed
Water	none listed	none listed	none listed

OSHA Vacated PELs

Lactic acid: No OSHA Vacated PELs are listed for this chemical. **Water:** No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear chemical goggles and face shield.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: colorless to slight yellow

Odor: odorless

pH: 1.5 – 2.5 (10% solution)

Vapor Pressure: 0.0813 mm Hg @ 25 deg C

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: 60 cP @ 20 °C

Boiling Point: 122 deg C @ 15 mm Hg

Freezing/Melting Point: 17-33 deg C

Decomposition Temperature: Not available.

Solubility: Soluble.

Specific Gravity/Density: 1.18-1.21 g/cm³ @20OC (H₂O=1)

Molecular Formula: C₃H₆O₃

Molecular Weight: 90.08

Section 10 - Stability and Reactivity

Chemical Stability: Not stable. Lactic acid self-polymerizes, but does not form more hazardous chemicals.

Conditions to Avoid: Excess heat.

Incompatibilities with Other Materials:

Metals, oxidizing agents, reducing agents, strong bases, nitric acid, sulfuric acid.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#

CAS# 50-21-5: OD2800000

CAS# 7732-18-5: ZC0110000

LD50/LC50

CAS# 50-21-5

Draize test, rabbit, eye: 750 ug Severe;

Draize test, rabbit, skin: 5 mg/24H Severe;

Draize test, rabbit, skin: 100 mg/24H Moderate;

Oral, mouse: LD50 = 4875 mg/kg;

Oral, rat: LD50 = 3543 mg/kg;
Skin, rabbit: LD50 = >2 gm/kg;<BR.

CAS# 7732-18-5

Oral, rat: LD50 = >90 mL/kg;<BR.

Carcinogenicity:

CAS# 50-21-5: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

CAS# 7732-18-5: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: No information available.

Teratogenicity:

One study has shown that lactic acid can produce fetotoxicity (decreased bone ossification) in presence of maternal toxicity. Mice were fed 570 mg/kg on days 6-15 of pregnancy. Maternal toxicity was evidenced by lower food consumption & liver weight.

Reproductive Effects: No information available.

Neurotoxicity: No information available.

Mutagenicity: There is no human information available on lactic acid. Mostly negative results have been obtained in bacteria and cultured mammalian cells. Positive results have been attributed to the effect of pH, rather than mutagenicity.

Other Studies: None.

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.

Environmental: No information available.

Physical: No information available.

Other: Calcium salt precipitation may occur in hard water at very high concentrations. May undergo bimolecular esterification to form 6-membered lactide rings. Subject to biodegradation.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.				No information available.
Hazard Class:	8				
UN Number:	UN3265				
Packing Group:	II				

Section 15 - Regulatory Information

US FEDERAL

TSCA:

CAS# 50-21-5 is listed on the TSCA inventory.

CAS# 7732-18-5 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA:

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 50-21-5: acute.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act

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This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 50-21-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California No Significant Risk Level: None of the chemicals in this product are listed.

International Regulations

The preparation is classified as dangerous in accordance with Directive 1999/45/EC.

Lactic Acid EEC Food additive: E 270

Hazard Symbols: Xi - Irritant

Risk Phrases:

R41 - Risk of serious damage to eyes.

R38 - Irritating to skin.

Safety Phrases:

S24 - Avoid contact with skin.

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37/39 - Wear suitable gloves and eye/face protection.

WGK (Water Danger/Protection)

CAS# 50-21-5: 0

CAS# 7732-18-5: No information available.

Canada - DSL/NDSL

CAS# 50-21-5 is listed on Canada's DSL List.

CAS# 7732-18-5 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of E.

Canadian Ingredient Disclosure List

CAS# 50-21-5 is listed on the Canadian Ingredient Disclosure List.

Exposure Limits

Section 16 - Additional Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall KAIDA YISHENG CO.,LTD. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if KAIDA YISHENG CO.,LTD. has been advised of the possibility of such damages.

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