

Food Grade Lactic Acid 80%

Composition

Lactic (2-Hydroxypropanoic) acid, $\text{CH}_3\text{CH}(\text{OH})\text{COOH}$ 80% w/w
Water 20% w/w



Hazards

Food Grade Lactic Acid 80% is a concentrated acid. It will corrode metals, damage concrete, cement, grout etc. and may stain or damage fabrics. In contact with metals it may produce a combination of heat and flammable gases (typically hydrogen) which may constitute a fire and/or explosion hazard. In contact with other chemicals it may produce hazardous gases and/or vapours.

It can irritate or cause chemical burns on skin and eyes, characterized by redness, watering, itching, scaling, reddening, blistering (occasionally) or loss of vision. It can irritate the lungs when inhaled, and spray mist may irritate or damage the mucous membranes of the eyes, mouth and respiratory tract. Ingestion can damage the mouth, throat and digestive tract. In case of exposure, the following first aid measures are recommended:

- Eye Contact - check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
- Skin Contact - immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Get medical attention immediately.
- Inhalation - remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
- Ingestion - do not induce vomiting unless directed to do so by medical personnel. Never give anything including fluids by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get medical attention immediately.

Safety Measures

Wear safety goggles, gloves and protective clothing at all times while handling this product. Keep out of reach of children. Store in a safe place away from metals, alkaline substances and combustible materials. Do not mix or bring in contact with other chemicals. Keep in original container only. In case of spills, dilute with water and mop up, or absorb with an inert DRY material (e.g. paper, sawdust, earth or sand) and place in an appropriate waste disposal container. Use a diluted solution of washing soda or pool soda ash to neutralize residues.

Use In Brewing

In brewing, Food Grade Lactic Acid 80% is used to correct the alkalinity and/or pH of the brewing water or wort. Add to strike water, sparging water or to the wort in the kettle. Use in small quantities only, as it is very easy to overshoot the target pH. Use of a water calculator is recommended. Dilute the acid with distilled water if smaller dosages are required, e.g. add 1 part acid to 5 parts water to obtain a 14% solution. Always add acid to water, never the other way around. Note: 1 drop is about 0.05 ml.