

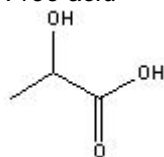
## TECHNICAL INFORMATION

Catalog Number: 100779, 100824, 101106, 102134, 151529, 152532, 153931, 190228, 193898, 194691

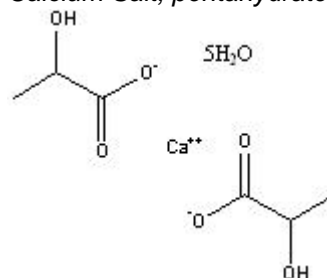
### Lactic Acid

#### Structure:

Free acid



Calcium Salt, pentahydrate



Form	Molecular Formula	Molecular Weight	CAS #
DL isoform, free acid	C <sub>3</sub> H <sub>6</sub> O <sub>3</sub>	90.1	50-21-5
DL isoform, Lithium salt	C <sub>3</sub> H <sub>5</sub> O <sub>3</sub> Li	96.01	16891-53-5
DL isoform, Sodium salt	C <sub>3</sub> H <sub>5</sub> O <sub>3</sub> Na	112.1	72-17-3
L(+) isoform, free acid	C <sub>3</sub> H <sub>6</sub> O <sub>3</sub>	90.1	79-33-4
L(+) isoform, calcium salt	C <sub>6</sub> H <sub>10</sub> O <sub>6</sub> Ca·5H <sub>2</sub> O	308.3	814-80-2
L(+) isoform, Hemizinc salt	C <sub>3</sub> H <sub>5</sub> O <sub>3</sub> ·½Zn	121.8	103404-76-8
L(+) isoform, Lithium salt	C <sub>3</sub> H <sub>5</sub> O <sub>3</sub> Li	96.01	867-55-0
L(+) isoform, Sodium salt	C <sub>3</sub> H <sub>5</sub> O <sub>3</sub> Na	112.1	312-85-6

**Synonym:** Hydroxypropionic acid

**Physical Description:** White crystalline powder to liquid

#### Solubility:

*Free Acid:* Soluble in water. L(+) is slightly more water soluble than the racemic DL mixture; Slightly soluble in ethanol.

*Calcium Salt:* Soluble in water; practically insoluble in ethanol

*Lithium Salt:* Soluble in water

*Sodium Salt:* Soluble in water; miscible with ethanol

*Zinc Salt:* Soluble in hot water (100 mg/4 ml-clear, colorless solution)

**Description:** A fermentation acid from milk or carbohydrates.

#### Availability:

Catalog Number	Description	Size
152532	Lactic Acid, ACS Reagent Grade (mixture of D and L), 85-90%	100 g 1 kg

100824	DL-Lactic Acid, Lithium Salt, purity approximately 99%	500 g 1 kg 5 kg
101106	DL-Lactic Acid, Sodium Salt, 60% solution by weight	500 g 1 kg 5 kg
194691	DL-Lactic Acid, Sodium Salt, 60% solution by weight, cell culture reagent	100 ml 500 ml
190228	L-(+)-Lactic Acid, free acid, purity approximately 98%	1 g 5 g 10 g 25 g 100 g
151529	L-(+)-Lactic Acid, free acid, technical grade, purity approximately 80%	250 g 500 g 1 kg
153931	L-Lactic Acid, Calcium Salt, Pentahydrate, purity approximately 95%	5 g 10 g 50 g 100 g
193898	L-(+)-Lactic Acid, Hemizinc Salt, purity approximately 98%	10 g
102134	L-(+)-Lactic Acid, Lithium Salt, purity approximately 98-100%	10 g 25 g 100 g 500 g 1 kg
100779	L-(+)-Lactic Acid, Sodium Salt, 40% solution by weight	50 g 100 g 500 g 1 kg

#### References:

- *Merck Index*, **12th Ed.**, No. 5349.
- Eggert, F.M. and Germain, J.P., *Histochemistry*, v. **59**, 215 (1970).
- Urban, P., et al., *Biochemistry*, v. **27**, 7365 (1988).