

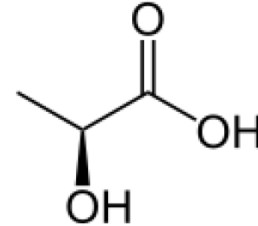
Product Information Sheet

Lactic Acid L5356

Synonyms: 2-Hydroxypropionic acid, Propanoic acid
CAS: 50-21-5
Formula: C₃H₆O₃
Mol. Weight: 90.08

Properties

Form: Liquid
Appearance: Clear, Colorless to Slight Yellow Tint
Solubility: Miscible with Water
Application: Microbiology, Seed Testing, Phytopathology
Storage Temp: Room Temperature



Application Notes

Often used in microbiological media to adjust pH. Lactic acid can inhibit the growth of some bacteria (Agrios 2005). Lactic acid can also be used to clear seeds for examination and is preferred over the use of phenol due to the toxic nature of phenol (Grabe & Peters 1998).

The Canadian Food Inspection Agency suggests an 85% lactic acid solution with 0.2g of trypan blue to create a stain for testing barley seeds for infestation of *Ustilago nuda*, the cause of loose smut in barley (CFIA, 2011).

The ISTA notes in method 7-013a that a lactic acid solution, combined with glycerol and water can be used to clear barley seed embryos for examination (2012).

In method 7-016, the ISTA (2012) recommends adjusting PDA (Potato Dextrose Agar) medium pH using a solution of 85% lactic acid.

References

- Agrios GN (2005) *Plant Pathology*, 5th edition. Academic Press, Massachusetts. (pg. 399).
Canadian Food Inspection Agency (2011) Canadian Methods and Procedures for Testing Seed.
http://www.aosaseed.com/docs/Canadian_M&P_2011.pdf
Grabe, D.F & Peters, J.A. (1998) Lactic acid clearing of grass seeds in tetrazolium tests. *Seed technology* 20(1).
International Seed Testing Association (2012) International Rules for Seed Testing: Annexe to Chapter 7 Seed Health Testing Methods. <http://www.seedtest.org/en/content---1--1132.html>.