Language: EN Country:

**** MATERIAL SAFETY DATA SHEET ****

DL-Thioctic acid, 98+%

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: DL-Thioctic acid, 98+%

Catalog Numbers:

13872-0000, 13872-0050, 13872-0250

Synonyms:

DL-6,8-Dithiooctanoic acid, DL-?-Lipoic acid Company Identification (Europe): Acros Organics BVBA
Janssen Pharmaceuticalaan 3a

2440 Geel, Belgium

Company Identification (USA):

Acros Organics One Reagent Lane Fairlawn, NJ

For information in North America, call: 800-ACROS-01 For information in Europe, call: 0032(0) 14575211 For emergencies in the US, call CHEMTREC: 800-424-9300 For emergencies in Europe, call: 0032(0) 14575299

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

†	CAS#	Chemical Name	⊱ ૄ ૪	+ EINECS#	Haz Symbols	Risk Phrases	+
	1077-28-7	DL-Thioctic acid	98+%	214-071-2	 		+

Hazard Symbols: None Listed. Risk Phrases: None Listed.

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW

Not available.

Potential Health Effects

Eye:

May cause eye irritation.

May cause skin irritation. May be harmful if absorbed through the skin.

Ingestion:

May cause irritation of the digestive tract. May be harmful if swallowed.

Inhalation:

May cause respiratory tract irritation. May be harmful if inhaled. Chronic:

Not available.

**** SECTION 4 - FIRST AID MEASURES ****

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids.

Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion:

Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation:

Remove from exposure and move to fresh air immediately. Notes to Physician:

**** 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.

Extinguishing Media:

In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

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

Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal.

**** SECTION 7 - HANDLING and STORAGE ****

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

Storage:

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Store in a cool, dry place. Keep container closed when not in use. Keep refrigerated. (Store below 4^{\circ}\text{C}/39^{\circ}\text{F.})
            **** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****
            Use adequate general or local exhaust ventilation to keep airborne
            concentrations below the permissible exposure limits. Use process enclosure, local exhaust ventilation, or other engineering controls
     to control airborne levels.
Personal Protective Equipment
                    Eyes:
                           Wear safety glasses and chemical goggles if splashing
                           is possible.
                    Skin:
                           Wear appropriate protective gloves and clothing to
                           prevent skin exposure.
               Clothing:
                           Wear appropriate protective clothing to minimize
                           contact with skin.
            Respirators:
                           Wear a NIOSH/MSHA or European Standard EN 149
                           approved full-facepiece airline respirator in the
                           positive pressure mode with emergency escape
                           provisions.
               **** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****
Physical State:
                                  Crystalline powder
Color:
                                  yellow
Odor:
                                  Not available.
pH:
                                 Not available.
Vapor Pressure:
                                 Not available.
Viscosity:
Boiling Point:
                                 Not available.
                                 160 - 165 deg C @ 760.00mm Hg
60 - 63 deg C
Freezing/Melting Point:
Autoignition Temperature:
                                 Not available.
Flash Point:
                                 Not available.
Explosion Limits, lower: Explosion Limits, upper:
                                 Not available.
                                 Not available.
Decomposition Temperature:
Solubility in water:
                                  soluble in 10% sodium hydroxide
Specific Gravity/Density:
Molecular Formula:
Molecular Weight:
                                  206.32
                    **** SECTION 10 - STABILITY AND REACTIVITY ****
      Chemical Stability:
      Stable under normal temperatures and pressures. Conditions to Avoid:
            Incompatible materials.
      Incompatibilities with Other Materials:
            Strong oxidizing agents.
      Hazardous Decomposition Products:
     Carbon monoxide, oxides of sulfur, irritating and toxic fumes and gases, carbon dioxide.
Hazardous Polymerization: Has not been reported.
                   **** SECTION 11 - TOXICOLOGICAL INFORMATION ****
      RTECS#:
            CAS# 1077-28-7: JP1192000
      LD50/LC50:
            Not available.
      Carcinogenicity:
        DL-Thioctic acid -
            Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. See actual entry in RTECS for complete information.
                     **** SECTION 12 - ECOLOGICAL INFORMATION ****
                    **** SECTION 13 - DISPOSAL CONSIDERATIONS ****
Dispose of in a manner consistent with federal, state, and local regulations.
                     **** SECTION 14 - TRANSPORT INFORMATION ****
      IATA
            No information available.
      TMO
            No information available.
      RID/ADR
            No information available.
                     **** SECTION 15 - REGULATORY INFORMATION ****
 European/International Regulations
      European Labeling in Accordance with EC Directives
Hazard Symbols: Not available.
            Risk Phrases:
            Safety Phrases:
                           S 24/25 Avoid contact with skin and eyes.
   WGK (Water Danger/Protection)

CAS# 1077-28-7: 2
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United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits

Canada

CAS# 1077-28-7 is listed on Canada's DSL List. CAS# 1077-28-7 is not listed on Canada's Ingredient Disclosure List. Exposure Limits

US FEDERAL

TSCA

 ${\tt CAS\#}\ 1077-28-7$ is not listed on the TSCA inventory. It is for research and development use only.

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 7/16/1996 Revision #0 Date: Original.

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 way shall the company 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 the company has been advised of the possibility of such damages.