



Material Safety Data Sheet


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Section 1 - Product and Company Identification

Product name : Monohydrate Citric Acid
Other names : --
Product use : Use as sour agent and preservatives in the foods and drinks. In the field of the chemical industry, cosmetics and laundry, it is used as antioxidant, Plasticizers, detergent.
Supplier's name : San Fu Chemical Co., Ltd., Shan Hua Plant
Supplier's address : 340 Hsiao Hsin Li, Shan Hua Town, Tainan Hsien, Taiwan, R.O.C.
Supplier's phone : 06-5837608 Emergency phone : 06-5837608
FAX. : 06-5839498

Section 2 - Hazards Identification

Classification : <ol style="list-style-type: none">1. Acute Toxicity Category 52. Skin Corrosion/Irritation Category 23. Serious Eye Damage/Irritation Category 2A
The Most Important Hazards and effect Label element : <ul style="list-style-type: none">■ Hazard symbol : Exclamation Mark  <ul style="list-style-type: none">■ Signal word : Warning
Hazard statement : <ol style="list-style-type: none">1. Harmful with ingestion (oral)2. Harmful with skin contact (skin)3. Harmful with inhalation (gas, vapor, dust, fog)4. Cause skin tissue irritation5. Cause severe eye irritation
Precautionary statement : <ol style="list-style-type: none">1. Wear mouth protective equipments2. Avoid contact with eyes and skin.3. If contacted, wash with large amount of water then seek the medical attention immediately.4. If swallowed, seek medical attention immediately
Others Hazard : --

Section 3 - Composition/Information On Ingredients

Pure Substance :

Chemical name : Citric Acid 、 monohydrate
Synonyms : 2-Hydroxy-1,2,3-Propanetricarboxylic Acid 、 monohydrate
CAS No. : 5949-29-1
Ingredient contributing to the hazard(%) : 99~100%



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Section 4 - First Aid Measures

The First-aid Information : <ul style="list-style-type: none"> ■ Inhalation : Move to the air fresh place, and beware of patient's breathing. If the discomfort occurs, seek the medical attention. ■ Skin Contact : <ol style="list-style-type: none"> 1. Wash with large amount of water for at least 20 minutes. 2. If the irritation occurs, seek the medical attention. ■ Eye Contact : <ol style="list-style-type: none"> 1. Wash the eyes with large amount of water for at least 20 minutes. 2. If the discomfort occurs, seek the medical attention. ■ Ingestion : If swallowed with large amount of this substance, seek the medical attention immediately. If patient is conscious, give large amount of water to drink.
The Most Important Symptoms and Hazardous Effects : --
Protection of First-aiders : No specific regulation.
Notes to a Physician : --

Section 5 - Fire Fighting Measures

Extinguishing Media : Water, powder, chemical foam, CO ₂
Specific Hazards when Fire-fight : --
Specific Fire-fighting Procedure : None
Specific Protection of Firefighters : wear full protective clothing and NIOSH-approved self-contained breathing apparatus with pressure gauge.

Section 6 - Accidental Release Measures

Personal Precautions : Avoid contact. Avoid generating into dust. Avoid inhale the dust.
Environmental Precautions : Avoid generating the dust, keeps well ventilation.
Methods for Cleaning up : Sweep into the proper container for recycling or managing. Use lime to neutralize the substance.

Section 7 - Handling and Storage

Handling : <ol style="list-style-type: none"> 1. PROPER VENTILATION 2. AVOID GENERATING AND ACCUMULATING THE DUST.
Storage : <ol style="list-style-type: none"> 1. Keep in the container closed and tightly. 2. Place in the cool, dry and well ventilation place. 3. Away from the incompatibles.

Section 8 - Exposure Controls & Personal Protection

Engineering measures : Use the proper ventilation equipments and maintain the low concentration in the airborne.			
Control parameters			
TWA	STEL	Ceiling	Biological standards



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Personal protective equipment : <ul style="list-style-type: none">■ Respiratory Protection :<ol style="list-style-type: none">1. Wear mask with filter function.2. In case of emergency, use the positive pressure mode air breathing apparatus.■ Hand Protection : Wear protective gloves.■ Eye Protection : Wear safety goggles.■ Skin and Body Protection : Wear protective clothing include boots, gloves, lab coat, apron or overalls to prevent skin contact.			
Hygiene measures : Forms the good habit, strictly no drinking or eating in the working area. Need to wash the hands after work done.			

Section 9 - Physical & Chemical Properties

Appearance : colorless crystal grain or white crystal grain	Odor : odorless
Color : Transparent	Melting Point: 132~152°C
pH value : 1.85(25°C)	Boiling point/boiling range : --
Flammability: --	Flash point : --
Decomposition temp : --	Test method : --
Auto ignition temp : --	Explosion properties : --
Vapor pressure : --	Vapor density : --
Density : 1.542(H ₂ O=1)	Solubility : dissolve in water easily.
log Kow : /	Evaporation Rate : --

Section 10 - Stability & Reactivity Data

Stability : stable
Possible hazardous reactions under specific conditions : No reaction
Conditions to avoid : Heat, fire
Materials to avoid : Metal, oxidizer, base, reductant
Hazardous decomposition products : May generate CO and CO ₂ with thermal decomposition.

Section 11 - Toxicological Information

Route of exposure : Inhalation, skin contact, ingestion, eyes.
Symptoms : Inflammations, itchy, cough, nausea, vomit, diarrhea.
Immediate Toxicity : <ol style="list-style-type: none">1. Skin : Mild skin irritation with the symptoms of inflammations, itchy, pain.2. Inhalation : Cause irritation of the respiratory tract with the symptoms of coughing, asthma.3. Eye : Severe irritation may cause eye damage.4. Ingestion : Cause nausea, vomit diarrhea, Hematemesis. Swallow in large amount may



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cause gastrointestinal tract inflammation.

- LD₅₀: 3000mg/kg (oral、rat)
- LC₅₀: --

Specific effects : --

Section 12 - Ecological Information

Ecotoxicology :

- LC₅₀(fish) : --
- EC₅₀(Aquatic Invertebrates) : --
- Bioconcentration factor (BCF) : --

Persistence and degradability : --

- Half-Life (Air) : --
- Half-Life (Water surface) : --
- Half-Life (Groundwater) : --
- Half-Life (Soil) : --

Bioaccumulative potential : --

Mobility in soil : --

Other adverse effects : --

Section 13 - Disposal Considerations

Methods of disposal : Follow the local government laws and regulation

Section 14 - MSDS Transport Information

UN classification number : --

Proper D.O.T Shipping Name : --

Hazard Class : --

Packing Group : --

Marine pollution : --

Specific precautionary transport measures and conditions : --

Section 15 - Regulatory Information

Regulations :

1. Regulations for Labor Safety and Health Installations
2. Regulations for Chemical Hazard Communication
3. Road Traffic Safety Regulations
4. Industrial Waste Storage and Disposal Regulations and Facility Standards

Section 16 - Other Information

Literature references	MSDS database from Merck Index Chemical Hazards Chinese Database, Council of Labor Affairs
Prepared by	Supplier : San Fu Chemical Co., Ltd. Shan Hua Plant



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