



Material safety data sheet

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Catalog Numbers: 26047
Catalog Name: (Food Additives) Citric acid anhydrous

Company Identification:

Junsei Chemical Co., Ltd.
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CREATION DATE: April 6, 2009

SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: Citric acid
SYNONYMS: 2-Hydroxy-1,2,3-propanetricarboxylic acid
CAS NUMBER: 77-92-9
US TSCA:inventory
EC NUMBER (EINECS): 201-069-1
JAPAN NUMBER (ENCS): 2-1318
PERCENTAGE: (GR)99.5+%

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Irritating to eyes, respiratory system and skin. Moisture sensitive.

Potential Health Effects

Eye:

Causes severe eye irritation.

Skin:

Causes moderate skin irritation.

Ingestion:

May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation:
Causes respiratory tract irritation.
Chronic:
Not available.

SECTION 4 FIRST AID MEASURES

Eyes:
Flush eyes with plenty of water for at least 15 minutes,
occasionally lifting the upper and lower eyelids.
Skin:
Flush skin with plenty of soap and water for at least 15 minutes
while removing contaminated clothing and shoes.
Ingestion:
Get medical aid. Wash mouth out with water.
Inhalation:
Remove from exposure 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. This material in sufficient quantity and reduced
particle size is capable of creating a dust explosion.
Extinguishing Media:
Use water spray, dry chemical, carbon dioxide, or chemical foam.

SECTION 6 ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated
in Section 8.
Spills/Leaks:
Vacuum or sweep up material and place into a suitable disposal
container.

SECTION 7 HANDLING AND STORAGE

Handling:
Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin
and eyes.

Storage:

Store in a cool, dry place. Store in a tightly closed container.

SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Personal Protective Equipment

Eyes:

Wear chemical goggles.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear a chemical apron.

Respirators:

A NIOSH/MSHA approved air purifying dust or mist respirator or European Standard EN 149.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Crystals
Appearance:	white
Odor:	odorless
pH:	Not available.
Vapor Pressure:	Not available.
Viscosity:	Not available.
Boiling Point:	Not available.
Freezing/Melting Point:	153 - 154.5 deg C
Autoignition Temperature:	1000 deg C (1,832.00 deg F)
Flash Point:	100 deg C (212.00 deg F)
Explosion Limits, lower:	Not available.
Explosion Limits, upper:	Not available.
Decomposition Temperature:	
Solubility in water:	59.2% (20-C)
Specific Gravity/Density:	1.6650g/cm ³
Molecular Formula:	H ₀₂ CCH ₂ C(OH)(CO ₂ H)CH ₂ CO ₂ H
Molecular Weight:	192.12

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials, exposure to moist air or water.

Incompatibilities with Other Materials:

Oxidizing agents, reducing agents, bases, metal nitrates.

Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 77-92-9: GE7350000

LD50/LC50:

CAS# 77-92-9: Draize test, rabbit, eye: 750 ug/24H Severe; Draize test, rabbit, skin: 500 mg/24H Mild; Oral, mouse: LD50 = 5040 mg/kg; Oral, rat: LD50 = 3 gm/kg.

Carcinogenicity:

Citric acid -

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

See actual entry in RTECS for complete information.

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity:

Fish toxicity: LC100 goldfish 894 mg/l lifetime exposure in hard water, LD0 goldfish 625 mg/l lifetime exposure in hard water (Ellis, M.M. Detection and measurement of Stream Pollution 1937, 22, XLVII, 365, US Brit. Fisheries Bull.) Invertebrate toxicity: LD100 Daphnia magna 120 mg/l lifetime exposure in soft water, LD0 Daphnia magna 80 mg/l lifetime exposure in soft water. Toxicity threshold: Pseudomonas putida > 10 g/l; Scenedesmus quadricauda 640 mg/l; Entosiphon sulcatum 485 mg/l (Bringmann, G. et al Water Res. 1980, 14, 231-241).

Other

Biodegradable.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

SECTION 14 TRANSPORT INFORMATION

IATA
Not regulated as a hazardous material.
IMO
Not regulated as a hazardous material.
RID/ADR
Shipping Name: Not regulated.
Hazard Class:
UN Number:
Packing group:

SECTION 15 REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XI

Risk Phrases:

R 36/37/38 Irritating to eyes, respiratory system
and skin.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately
with plenty of water and seek medical advice.

S 37/39 Wear suitable gloves and eye/face
protection.

WGK (Water Danger/Protection)

CAS# 77-92-9: 0

United Kingdom Occupational Exposure Limits

Canada

CAS# 77-92-9 is listed on Canada's DSL List.

CAS# 77-92-9 is listed on Canada's Ingredient Disclosure List.

Exposure Limits

US FEDERAL

TSCA

CAS# 77-92-9 is listed on the TSCA inventory.

SECTION 16 OTHER INFORMATION
