



Material safety data sheet

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Catalog Numbers: 95046

Catalog Name: 0.01mol/L Ethylenediaminetetraacetic acid disodium salt solution

Company Identification:

Junsei Chemical Co., Ltd.

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CREATION DATE: February 4, 2010

SECTION 2 HAZARDS IDENTIFICATION

GHS classification

Physical and chemical hazards

Flammable liquids: Out of category

Pyrophoric liquids: Out of category

Human health hazards

Acute toxicity: Out of category

Skin corrosion/irritation : Out of category

Serious eye damage/eve irritation : Out of category

ENVIRONMENTAL HAZARDS

Hazardous to the aquatic environment-acute hazard: Out of category

SECTION 3 COMPOSITION, INFORMATION ON INGREDIENTS

Ingredient 1

Chemical name: Disodium dihydrogen ethylenediaminetetraacetate dihydrate

Synonyms: Ethylenediaminetetraacetic acid disodium salt dihydrate

Molecular Formula: C₁₀H₁₄N₂Na₂O₈

Molecular Weight: 372.24

CAS NUMBER: 6381-92-6

EC NUMBER (EINECS): 205-358-3

JAPAN NUMBER (ENCS): 2-1265

Content: ca.0.3%

Ingredient 2

Chemical name: Water
CAS NUMBER: 7732-18-5
EC NUMBER (EINECS): 231-791-2
ENCS Designation: Japanese Pharmacopoeia(8th Ed.) substance
Content: ca.99.7%

SECTION 4 FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.
SKIN CONTACT: Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.
EYE CONTACT: Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.
INGESTION: If a large amount is swallowed, get medical attention.

SECTION 5 FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Negligible fire hazard.
EXTINGUISHING MEDIA: Use extinguishing agents appropriate for surrounding fire.
FIRE FIGHTING: Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.
FLASH POINT: No data available.

SECTION 6 ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL RELEASE: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal.

SECTION 7 HANDLING AND STORAGE

STORAGE: Store and handle in accordance with all current regulations and standards. See original container for storage recommendations. Keep separated from incompatible substances.

SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:
EDTA, DISODIUM SALT, DIHYDRATE, 0.01M VOLUMETRIC SOLUTION:
No occupational exposure limits established.
VENTILATION: Based on available information, additional ventilation is not required.
EYE PROTECTION: Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

CLOTHING: Wear appropriate chemical resistant clothing.

GLOVES: Wear appropriate chemical resistant gloves.

RESPIRATOR: No respirator is required under normal conditions of use. Under conditions of frequent use or heavy exposure, respiratory protection may be needed.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: liquid

APPEARANCE: clear

COLOR: colorless

ODOR: odorless

BOILING POINT: Approx 100

FREEZING POINT: Approx 0

VAPOR PRESSURE: Not available

VAPOR DENSITY: Not available

SPECIFIC GRAVITY: Not available

PH: Not available

ODOR THRESHOLD: Not available

EVAPORATION RATE: Not available

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

CONDITIONS TO AVOID: None reported.

INCOMPATIBILITIES: metals, oxidizing materials

ETHYLENEDIAMINETETRAACETIC ACID, DISODIUM SALT:

 OXIDIZERS (STRONG): Fire and explosion hazard.

HAZARDOUS DECOMPOSITION:

 Thermal decomposition products: oxides of carbon, oxides of nitrogen

POLYMERIZATION: Will not polymerize.

SECTION 11 TOXICOLOGICAL INFORMATION

ETHYLENEDIAMINETETRAACETIC ACID, DISODIUM SALT:

 TOXICITY DATA: oral-rat LD50; 2 gm/kg

 intraperitoneal-mouse LD50; 260 mg/kg

 intravenous-mouse LD50; 56 mg/kg

 oral-rabbit LD50; 2300 mg/kg

 intravenous-rabbit LD50; 47 mg/kg

 oral-rat LD50; 3.7 gm/kg

 oral-mouse LD50; 400 mg/kg

 intermittent oral-rat TDLo; 540 gm/kg/90 day(s)

 intermittent oral-rabbit TDLo; 15 gm/kg/30 day(s)

 intermittent intravenous-rabbit TDLo 300 mg/kg/30 day(s)

ACUTE TOXICITY LEVEL:

Moderately Toxic: ingestion

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: convulsive disorders, diabetes, central nervous system disorders, heart problems, kidney disorders

MUTAGENIC DATA: cytogenetic analysis - grasshopper parenteral 1 mmol/L; micronucleus test - mouse oral 15 mg/kg

REPRODUCTIVE EFFECTS DATA:

oral-rat TDLo 1-22 day(s) pregnant female continuous; 31429 mg/kg

oral-rat TDLo 7-15 day(s) pregnant female continuous; 12857 mg/kg

TDLo 9 day(s) pregnant female continuous 380 mg/kg subcutaneous-rat

ADDITIONAL DATA: Parenteral administration of EDTA or its salts in high doses may cause severe renal lesions and tubular necrosis, internal hemorrhage, life-threatening hypocalcemia, and death. Prolonged parenteral administration may lead to electrolyte imbalance, and cardiac arrhythmias.

HEALTH EFFECTS:

INHALATION:

ACUTE EXPOSURE:

ETHYLENEDIAMINETETRAACETIC ACID, DISODIUM SALT: Inhalation of dusts or mists of EDTA salts may cause mucous membrane irritation with sore throat and coughing.

CHRONIC EXPOSURE:

ETHYLENEDIAMINETETRAACETIC ACID, DISODIUM SALT: No data available.

SKIN CONTACT:

ACUTE EXPOSURE:

ETHYLENEDIAMINETETRAACETIC ACID, DISODIUM SALT: EDTA salts may cause irritation with redness and pain.

CHRONIC EXPOSURE:

ETHYLENEDIAMINETETRAACETIC ACID, DISODIUM SALT: Repeated or prolonged contact with EDTA salts may cause moderate irritation and possibly a mild burn.

EYE CONTACT:

ACUTE EXPOSURE:

ETHYLENEDIAMINETETRAACETIC ACID, DISODIUM SALT: Contact with EDTA salts may cause irritation with redness, pain, and some transient corneal injury.

CHRONIC EXPOSURE:

ETHYLENEDIAMINETETRAACETIC ACID, DISODIUM SALT: Repeated or prolonged contact with EDTA salts may cause conjunctivitis.

INGESTION:

ACUTE EXPOSURE:

ETHYLENEDIAMINETETRAACETIC ACID, DISODIUM SALT: Solutions of the salts of EDTA are extremely irritating to the gastrointestinal system. Although poorly absorbed, if sufficient amounts are ingested systemic toxicity may result. EDTA and its salts may chelate lead, magnesium, zinc, and trace metals if they are present in the intestine, possibly causing their increased absorption and thereby increasing total body stores of these metals.

CHRONIC EXPOSURE:

ETHYLENEDIAMINETETRAACETIC ACID, DISODIUM SALT: In feeding studies, rats fed a diet of 5 and 10% EDTA disodium salts for up to 13 weeks showed decreased food consumption and weight gain when compared to controls.

These rats also suffered from diarrhea and priapism. A 60% mortality occurred in the 10% diet group, and 20% mortality in the 5% group. Reproductive effects have been reported in animal studies.

SECTION 12 ECOLOGICAL INFORMATION

Not available.

SECTION 13 DISPOSAL CONSIDERATIONS

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

SECTION 14 TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: No classification assigned.
CANADIAN TRANSPORTATION OF DANGEROUS GOODS: No classification assigned.
LAND TRANSPORT ADR: No classification assigned.
AIR TRANSPORT IATA: No classification assigned.
AIR TRANSPORT ICAO: No classification assigned.
MARITIME TRANSPORT IMDG: No classification assigned.

SECTION 15 REGULATORY INFORMATION

U.S. REGULATIONS:

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4): Not regulated.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30):
Not regulated.

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.40):
Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):

ACUTE: Yes

CHRONIC: No

FIRE: No

REACTIVE: No

SUDDEN RELEASE: No

SARA TITLE III SECTION 313 (40 CFR 372.65): Not regulated.

OSHA PROCESS SAFETY (29CFR1910.119): Not regulated.

STATE REGULATIONS:

California Proposition 65: Not regulated.

CANADIAN REGULATIONS:

WHMIS CLASSIFICATION: Not determined.

EUROPEAN REGULATIONS:

EC CLASSIFICATION (CALCULATED): Not determined.

NATIONAL INVENTORY STATUS:

U.S. INVENTORY (TSCA): Listed on inventory.

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

SECTION 16 OTHER INFORMATION

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.