

Safety Data Sheet

1. Product and company identification

Product name : L-Tartaric acid
Name of manufacturer : KANTO CHEMICAL CO., INC.
Address : 2-1, Nihonbashi, Muromachi 2-Chome, Chuo-Ku, Tokyo, 103-0022, Japan
Name of section : Reagent division, food science department
Telephone number : +81-3-6214-1093
Facsimile number : +81-3-3241-1054
Mail address : food-info@gms.kanto.co.jp
SDS No. : 58033
Recommended use of chemical and restrictions on use : Food additives

2. Summary of danger and Hazard

GHS classification

Physical and chemical hazard

Flammable solids : Out of category
Substances and mixtures which, in contact with water, emit flammable gases : Out of category

Human health hazard

Acute toxicity(oral) : Out of category
Skin corrosion/irritation : Category 1
Serious eye damage/eye irritation : Category 1
Specific target organ systemic toxicity(repeated exposure) : Out of category

Pictogram or symbol



Signal word : Danger
Hazard statement : Causes severe skin burns and eye damage
Causes serious eye damage

Cautions

Safety measurements : Do not breathe dust and mist.
Wear appropriate protective gloves, glasses, clothing, face shield, or mask.
Wash protective equipment thoroughly after use.

First-aid measures : If inhaled : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical treatment if you feel unwell.



If swallowed: Rinse mouth, do not induce vomiting. Immediately get medical treatment.

If in eyes : Rinse cautiously with water for several minutes. Get medical treatment.

If on skin : Remove contaminated clothing and the substance. Immediately get medical treatment.

Storage : Store locked up.

Disposal : Dispose of contents and containers appropriately in accordance with related regulations.

3. Composition/Information on ingredients

Substance/Mixture : Substance

Chemical name or commercial name

: L(+)-Tartaric acid

Ingredients and composition

: L(+)-Tartaric acid min. 99.5%

Chemical formula : $\text{HOOC}(\text{CHOH})_2\text{COOH}$

CAS No. : 87-69-4

TSCA Inventory : Registered

EINECS No. : 2017660

4. First aid measures

Inhalation : Remove the victim to fresh air, and make him blow his nose and gargle.

Skin contact : Wash the affected areas under running water.

Eye contact : Wash the affected areas under running water.

Ingestion : Give the victim water. If necessary, get medical attention.

5. Fire fighting measures

Extinguishing media : Water, dry chemical powder, carbon dioxide, dry sand, foam

Prohibited extinguishing media

: None

Particular fire fighting : Move containers from fire area if it can be done without risk, if not possible, apply water from a safe distance to cool and protect surrounding area.

Protection for firefighters

: Firefighters should wear protective equipment.

6. Accidental release measures

Cautions for personnel : Wear proper protective equipment and avoid contact with skin and inhalation of dust. Conduct operations from upwind and evacuate people downwind.

Cautions for environment : Attention should be given to avoid discharge of spilled product into rivers and resulting environmental damage. When diluting spill with large amounts of water, discharge of untreated wastewater into the environment must be avoided.

Removal measure : Collect up spills as much as possible and transfer in a chemical container. Wash the spillage area thoroughly with water.

7. Cautions of handling and storage



Handling

Engineering measures : If necessary, wear proper protective equipment to avoid contact with skin or inhalation of dust.

Cautions for safety handling

: Avoid formation of dust and aerosols.

Storage

Adequate storage condition

: Store the bottle tightly closed in a cool, dark place because the substance is hygroscopic.

Safety adequate container materials

: Glass, polyethylene, polypropylene

8. Exposure control/Personal protection

Engineering measures : Use with an enclosed system or a local exhaust ventilation.

Control parameters

ACGIH(2015) : Not established

Protective equipment

Respiration protective equipment

: If necessary, wear dust mask

Hands protective equipment

: Impervious protective gloves

Eyes protective equipment

: Safety goggles

9. Physical and chemical properties

Appearance : Crystal or crystalline powder

Color : Colorless - white

Odor : Odorless

pH : 1.6(100g/L, 25°C)

Boiling point : Decomposition

Melting point : 168-170°C

Flash point : 210°C

Auto-ignition point : 425°C

Vapor pressure : 1.48×10^{-7} mmHg (25°C)

Density : 1.76g/cm³ (20°C)

Solubility

Solubility in solvents : Water ; 58.2% (20°C)

Organic solvents ; Soluble in ethanol

log Pow : -1.0

10. Stability and reactivity

Stability : Stable under normal conditions.

Reactivity : May react with strong oxidizing substances.

Incompatible conditions : Light, heat

Incompatible materials : Oxidizing substances, Alkaline substances.



Hazardous decomposition products

: Carbon monoxide

11. Toxicological information

Acute toxicity : Oral : Out of category

Dermal : Not possible to classify because of insufficient data.

Inhalation(vapor) : Not possible to classify because of insufficient data.

Inhalation(dust, mist) : Not possible to classify because of insufficient data.

mouse oral LD50=4360mg/kg

Skin corrosion/irritation : Causes severe skin burns and eye damage(category 1)

As pH of 10% water solution is 1.6, the substance has severe irritation of skin.

Serious eye damage/eye irritation

: Causes serious eye damage(category 1)

As pH of 10% water solution is 1.6, the substance has severe irritation of eye.

Respiratory sensitization or Skin sensitization

: Respiratory sensitization : Not possible to classify because of insufficient data.

Skin sensitization : Not possible to classify because of insufficient data.

Mutagenicity : Not possible to classify because of insufficient data.

Carcinogenic effects : Not possible to classify because of insufficient data

Effects on the reproductive system

: Not possible to classify because of insufficient data.

Specific target organ systemic toxicity single exposure

: Not possible to classify because of insufficient data.

If swallowed, may cause nausea, and vomiting. However, classification is not possible in the absence of data on the severity of the effects.

Specific target organ systemic toxicity repeated exposure

: Out of category

Gave rats feed contained each 0.1%, 0.5%, 1.2% of tartaric acid for 2 years, no serious side effect was recognized.

Aspiration hazard : Not possible to classify because of insufficient data.

12. Ecological information

Ecotoxicity

Fish toxicity : Acute aquatic toxicity : Not possible to classify because of insufficient data.

Chronic aquatic toxicity : Not possible to classify because of insufficient data.

Persistence and degradability

: High biodegradability

76% by BOD

Bioaccumulative potential : Low or no bioconcentration or bioaccumulation potential in fish or shells.

Mobility in soil : Not available

13. Disposal consideration

Residual disposal : Mixed with flammable organic solvents and burn in a chemical incinerator equipped with an afterburner and a scrubber. Or entrust approved waste disposal companies with the disposal.

Containers : In case of disposal of empty bottles, dispose bottles after removing the content thoroughly.

14. Transport information

UN class : Class 8(Corrosive substances) P. G. II

UN number : 3261

Marine regulation information

UN No. : 3261

Proper shipping name : CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.

Class : 8

Sub risk : -

Packing group : II

Marine pollutant : Not applicable

Aviation regulation information

UN No. : 3261

Proper shipping name : Corrosive solid, acidic, organic, n.o.s.

Class : 8

Sub risk : -

Packing group : II

15. Regulatory information

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

16. Other information

References

Dictionary of Organic Compounds, The society of Synthetic Organic Chemistry, Kodansha Ltd. (1985)

Dangerous Properties of Industrial Materials, 6th ed. N. I. Sax Van Nostrand Reinhold Company (1984)

Handbook of 16817 Chemical Products, The Chemical Daily Co. (2017)

The information contained herein is based on several references and the present state of our knowledge. However the SDS does not always cover all information about the product, handle the product carefully. The information is intended to ordinary usage, in case of particular handlings, conduct appropriate safety measurements. The information herein is only provision of information, and it does not represent a guarantee the properties of the product. The Safety Data Sheet (SDS) is prepared based on JIS Z7253, and it has the same required elements on the Material Safety Data Sheet (MSDS) which is prepared based on JIS Z7250:2010.

