# SAFETY DATA SHEET

**Preparation Date:** 01/26/2015 **Revision Date:** 09/17/2018 **Revision Number:** G3

## 1. IDENTIFICATION

**Product identifier**

**Product code:** TA105
**Product Name:** TARTARIC ACID, GRANULAR, NF

**Other means of identification**
**Synonyms:** 2,3-Dihydroxybutanedioic acid; L-(+)-Tartaric Acid; Malic acid, 3-hydroxy-; Succinic acid, 2,3-dihydroxy
**CAS #:** 87-69-4
**RTECS #** WW7875000
**CI#:** Not available

**Recommended use of the chemical and restrictions on use**
**Recommended use:** No information available.
**Uses advised against** No information available

**Supplier:**
Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000

**Order Online At:** https://www.spectrumchemical.com
**Emergency telephone number** Chemtrec 1-800-424-9300
**Contact Person:** Martin LaBenz (West Coast)
**Contact Person:** Ibad Tirmiz (East Coast)

## 2. HAZARDS IDENTIFICATION

**Classification**

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

| | |
|---|---|
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 2A |
| Specific target organ toxicity (single exposure) | Category 3 |

**Label elements**

**Warning**

**Hazard statements**
Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation

**Hazards not otherwise classified (HNOC)**
Not Applicable

**Other hazards**
Not available

**Precautionary Statements - Prevention**
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear eye/face protection
Wear protective gloves

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash it before reuse
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

**Precautionary Statements - Storage**
Store in a well-ventilated place. Keep container tightly closed
Store locked up

**Precautionary Statements - Disposal**
Dispose of contents/container to an approved waste disposal plant

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Components | CAS-No. | Weight % |
|---|---|---|
| L-Tartaric Acid | 87-69-4 | 100 |

## 4. FIRST AID MEASURES

**First aid measures**

**General Advice:** National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

**Skin Contact:** Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.

**Eye Contact:** Flush eyes with water for 15 minutes. Get medical attention.

**Inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an

unconscious person. Obtain medical attention.

**Most important symptoms and effects, both acute and delayed**

**Symptoms**

Causes eye irritation
Eye contact may result in redness or pain
Causes skin irritation
Skin contact may result in redness, pain, inflammation, itching, scaling
Irritating to respiratory system

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician:** Treat symptomatically.

**Protection of first-aiders**

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

## 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

**Suitable Extinguishing Media:** Carbon dioxide (CO2). Dry chemical. Water spray mist or foam.

**Unsuitable Extinguishing Media:** No information available.

### Specific hazards arising from the chemical

**Hazardous Combustion Products:** Carbon Monoxide, Carbon Dioxide.

**Specific hazards:** May be combustible at high temperatures.

### Special Protective Actions for Firefighters

**Specific Methods:** No information available.

**Special Protective Equipment for Firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions:** Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Remove all sources of ignition.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

**Methods and material for containment and cleaning up**

**Methods for containment** Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

**Methods for cleaning up** Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Technical Measures/Precautions:**
Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

**Safe Handling Advice**
Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Avoid dust formation. Do not ingest. Do not breathe dust. Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Technical Measures/Storage Conditions:**
Hygroscopic. Protect from moisture. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

**Incompatible Materials:**
Alkalis
Oxidizing agents
Reducing agents
Bases

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**National occupational exposure limits**

**United States**

| Components | CAS-No. | OSHA | NIOSH | ACGIH | AIHA WEEL |
|---|---|---|---|---|---|
| L-Tartaric Acid | 87-69-4 | None | None | None | None |

**Canada**

| Components | CAS-No. | Canada - Alberta | Canada - British Columbia | Canada - Ontario | Canada - Quebec |
|---|---|---|---|---|---|
| L-Tartaric Acid | 87-69-4 | None | None | None | None |

**Australia and Mexico**

| Components | CAS-No. | Australia | Mexico |
|---|---|---|---|
| L-Tartaric Acid | 87-69-4 | None | None |

**Appropriate engineering controls**

**Engineering measures to reduce exposure:** Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Individual protection measures, such as personal protective equipment**

**Personal Protective Equipment**

| | |
|---|---|
| **Eye protection:** | Goggles or Safety glasses with side-shields. |
| **Skin and body protection:** | Long sleeved clothing<br>Chemical resistant apron<br>Gloves |
| **Respiratory protection:** | Effective dust mask. Wear respirator with dust filter. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent. |
| **Hygiene measures:** | Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:**
Solid

**Appearance:**
Granular. Powder.

**Color:**
White.

**Odor:**
Odorless.

**Taste**
Acid.

**Formula:**
C4H6O6

**Molecular/Formula weight (g/mole):**
150.09

**Flammability:**
No information available

**Flashpoint (°C/°F):**
210°C/410°F

**Flash Point Tested according to:**
Open cup

**Autoignition Temperature (°C/°F):**
425°C/797°F

**Lower Explosion Limit (%):**
No information available

**Upper Explosion Limit (%):**
No information available

**Melting point/range(°C/°F):**
168°-172°C/334.4°-341.6°F

**Decomposition temperature(°C/°F):**
No information available

**Boiling point/range(°C/°F):**
No information available

**Bulk density:**
No information available

**Density (g/cm3):**
1.76

**Specific gravity:**
No information available

**pH:**
No information available

**Vapor pressure @ 20°C (kPa):**
No information available

**Evaporation rate:**
No information available

**Vapor density:**
5.18

**VOC content (g/L):**
No information available

**Odor threshold (ppm):**
No information available

**Partition coefficient (n-octanol/water):**
No information available

**Viscosity:**
No information available

**Miscibility:**
No information available

**Solubility:**
Easily soluble in cold water
Easily soluble in hot water
Easily soluble in methanol
Insoluble in Chloroform
Soluble in diethyl ether
Soluble in Glycerol
Solubility in Ethanol: 1 g/3 ml
Solubility in Ether: 1 g/250 ml
Solubility in Methanol: 0.2mg/ml
Solubility in propanol: 1 g/10.5 ml
Solubility in Water: 1g/0.75 ml @ room

temperature1g/0.5 ml boiling water115 g/100 ml @ 0°C126 g/100 ml @ 10°C139 g/100 ml @ 20°C156 g/100 ml @ 30°C176 g/100 ml @ 40°C195 g/100 ml @ 50°C217 g/100 ml @ 60°C244 g/100 ml @ 70°C273 g/100 ml @ 80°C307 g/100 ml @ 90°C

## 10. STABILITY AND REACTIVITY

**Reactivity**
Reactive with alkalis
Reactive with oxidizing agents
Reacts with strong bases
Reacts with reducing agents
Aqueous solution of tartaric acid can liberate explosive hydrogen gas in contact with reactive metals (Iron, Zinc, Aluminum)

**Chemical stability**

**Stability:** Hygroscopic. Stable at normal conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Heat. Incompatible materials. Avoid dust formation. Exposure to moisture.

**Incompatible Materials:** Alkalis
Oxidizing agents
Reducing agents
Bases

**Hazardous decomposition products:** Carbon oxides.

**Other Information**
**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Principal Routes of Exposure:**
Ingestion. Inhalation.

**Acute Toxicity**

**Component Information**

| L-Tartaric Acid | |
|---|---|
| CAS-No. | 87-69-4 |

**LD50/oral/rat =** 7500 mg/kg (LDLo)
**LD50/oral/mouse =** No information available
**LD50/dermal/rabbit =** No information available
**LD50/dermal/rat =** No information available
**LC50/inhalation/rat =** No information available
**LC50/inhalation/mouse =** No information available

**Other LD50 or LC50information =** 5000 mg/kg, LDLo oral, dog
5000 mg/kg, LDLo oral, rabbit
485 mg/kg, LD50 intravenous, mouse

**Product Information**

**LD50/oral/rat =**
**VALUE- Acute Tox Oral =** No information available

**LD50/oral/mouse =**
**Value - Acute Tox Oral =** No information available

**LD50/dermal/rabbit**
**VALUE-Acute Tox Dermal =** No information available

**LD50/dermal/rat**
**VALUE -Acute Tox Dermal =** No information available

**LC50/inhalation/rat**
**VALUE-Vapor =** No information available
**VALUE-Gas =** No information available
**VALUE-Dust/Mist =** No information available

**LC50/Inhalation/mouse**
**VALUE-Vapor =** No information available
**VALUE - Gas =** No information available
**VALUE - Dust/Mist =** No information available

**Symptoms**

**Skin Contact:** Causes skin irritation.

**Eye Contact:** Causes serious eye irritation.

**Inhalation** Irritating to respiratory system.

**Ingestion** Causes gastrointestinal (digestive) tract irritation with nausea, vomiting, and diarrhea. May affect behavior/central nervous system (convulsions, somnolence), and respiration.

**Aspiration hazard** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Chronic Toxicity** Repeated or prolonged ingestion may cause lesions of the mouth, gastric ulcers, gastrointestinal hyperacidity, and symptoms similar to those of "metal fume fever", a flu-like condition with fever, chills, sweats, nausea, vomiting, muscle aches, pains, and weakness. It may also affect the kidneys.Skin: Repeated or prolonged skin contact may cause skin ulcerations or lesions.

**Sensitization:** No information available.

**Mutagenic Effects:** No information available

**Carcinogenic effects:** Not considered carcinogenic.

| Components | CAS-No. | IARC | ACGIH - Carcinogens | NTP | OSHA HCS - Carcinogens | Australia - Notifiable | Australia - Prohibited |
|---|---|---|---|---|---|---|---|

| | | | | | | Carcinogenic Substances | Carcinogenic Substances |
|---|---|---|---|---|---|---|---|
| L-Tartaric Acid | 87-69-4 | Not listed | Not listed | Not listed | Not listed | Not listed | Not listed |

*ACGIH (American Conference of Governmental Industrial Hygienists)*

*IARC (International Agency for Research on Cancer)*

*NTP (National Toxicology Program)*

*OSHA (Occupational Safety and Health Administration of the US Department of Labor)*

**Reproductive toxicity** No data is available

**Reproductive Effects:** No information available
**Developmental Effects:** No information available
**Teratogenic Effects:** No information available

**Specific Target Organ Toxicity**

**STOT - single exposure** No information available.
**STOT - repeated exposure** No information available.
**Target Organs:** No information available.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

**Ecotoxicity effects:** No data available.

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available.

**Mobility:** No information available.

## 13. DISPOSAL CONSIDERATIONS

### Disposal Methods

**Waste from residues / unused products:**
Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**
Empty containers should be taken for local recycling, recovery or waste disposal

| Components | CAS-No. | RCRA - F Series Wastes | RCRA - K Series Wastes | RCRA - P Series Wastes | RCRA - U Series Wastes |
|---|---|---|---|---|---|
| L-Tartaric Acid | 87-69-4 | None | None | None | None |

## 14. TRANSPORT INFORMATION

**DOT**
**UN-No:** Not Regulated
**Proper Shipping Name:** No information available
**Hazard Class:** No information available
**Subsidiary Class** No information available

| | |
|---|---|
| **Packing group:** | No information available |
| **Emergency Response Guide Number** | No information available |
| **Marine Pollutant** | No data available |
| **DOT RQ (lbs):** | No information available |
| **Special Provisions** | No Information available |
| **Symbol(s):** | No information available |
| **Description:** | No information available |

**TDG (Canada)**

| | |
|---|---|
| **UN-No:** | Not Regulated |
| **Proper Shipping Name:** | No information available |
| **Hazard Class:** | No information available |
| **Subsidiary Risk:** | No information available |
| **Packing Group:** | No information available |
| **Marine Pollutant** | No Information available |
| **Description:** | No information available |

**ADR**

| | |
|---|---|
| **UN-No:** | Not Regulated |
| **Proper Shipping Name:** | No information available |
| **Hazard Class:** | No information available |
| **Packing Group:** | No information available |
| **Subsidiary Risk:** | No information available |

**IMO / IMDG**

| | |
|---|---|
| **UN-No:** | Not Regulated |
| **Proper Shipping Name:** | No information available |
| **Hazard Class:** | No information available |
| **Subsidiary Risk:** | No information available |
| **Packing Group:** | No information available |
| **Marine Pollutant** | No information available |

**RID**

| | |
|---|---|
| **UN-No:** | Not Regulated |
| **Proper Shipping Name:** | No information available |
| **Hazard Class:** | No information available |
| **Subsidiary Risk:** | No information available |
| **Packing Group:** | No information available |

**ICAO**

| | |
|---|---|
| **UN-No:** | Not Regulated |
| **Proper Shipping Name:** | No information available |
| **Hazard Class:** | No information available |
| **Subsidiary Risk:** | No information available |
| **Packing Group:** | No information available |

**IATA**

| | |
|---|---|
| **UN-No:** | Not Regulated |
| **Proper Shipping Name:** | No information available |
| **Hazard Class:** | No information available |
| **Subsidiary Risk:** | No information available |
| **Packing Group:** | No information available |
| **ERG Code:** | No information available |
| **Special Provisions** | No information available |

## 15. REGULATORY INFORMATION

**International Inventories**

| Components | CAS-No. | U.S. TSCA | KOREA KECL | Philippines (PICCS) | Japan ENCS | CHINA | Australia (AICS) | EINECS-No. |
|---|---|---|---|---|---|---|---|---|
| *L-Tartaric Acid* | 87-69-4 | PresentACTIVE | Present KE-10801 | Present | Present (2)-1456 | Present [21192] | Present | Present 201-766-0 |

## U.S. Regulations

*L-Tartaric Acid*

**FDA - Food Additives Generally Recognized as Safe (GRAS):** 21 CFR 184.1099

**FDA - 21 CFR - Total Food Additives** 150.141, 150.161, 163.110, 163.111, 163.112, 184.1099

**California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.**

**Chemicals Known to the State of California to Cause Cancer:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

**Chemicals Known to the State of California to Cause Reproductive Toxicity:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

| Components | CAS-No. | Carcinogen | Developmental Toxicity | Male Reproductive Toxicity | Female Reproductive Toxicity: |
|---|---|---|---|---|---|
| L-Tartaric Acid | 87-69-4 | Not Listed | Not Listed | Not Listed | Not Listed |

**CERCLA/SARA**

| Components | CAS-No. | CERCLA - Hazardous Substances and their Reportable Quantities | Section 302 Extremely Hazardous Substances and TPQs | Section 302 Extremely Hazardous Substances and RQs | Section 313 - Chemical Category | Section 313 - Reporting de minimis |
|---|---|---|---|---|---|---|
| *L-Tartaric Acid* | 87-69-4 | None | None | None | None | None |

**U.S. TSCA**

| Components | CAS-No. | TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS) | TSCA 8(d) -Health and Safety Reporting |
|---|---|---|---|
| L-Tartaric Acid | 87-69-4 | Not Applicable | Not Applicable |

## Canada

**WHIMIS 2015 - GHS Classifications**

WHMIS 2015 Hazard Classification Information: .

Component
L-Tartaric Acid
87-69-4 ( 100 )

WHMIS 2015 Hazard Classification
Health Hazard Not Otherwise Classified - Category 1: Causes severe damage to the respiratory tract; Skin corrosion/irritation - Category 1: H314 Causes severe skin burns and eye damage.; Serious Eye Damage/Eye Irritation - Category 1: H318 Causes serious eye damage.; Combustible Dust - Category 1: May form combustible dust concentrations in air (factors such as combustibility and explosiveness of dusts including composition and shape and size of particles could cause substance to belong to 'Combustible dust' hazard class)

**Canada Hazardous Products Regulation** This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

**Inventory**

| Components | CAS-No. | Canada (DSL) | Canada (NDSL) |
|---|---|---|---|
| L-Tartaric Acid | 87-69-4 | Present | Not Listed |

| **Components** | CAS-No. | CEPA Schedule I - Toxic Substances |
|---|---|---|
| L-Tartaric Acid | 87-69-4 | Not listed |
| Components | CAS-No. | CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting |
| L-Tartaric Acid | 87-69-4 | Not listed |

**EU Classification**

**EU GHS - SV - CLP 1272/2008**

| Components | CAS-No. | EU GHS - SV - CLP (1272/2008) |
|---|---|---|
| L-Tartaric Acid | 87-69-4 | No information |

**EU - CLP (1272/2008)**

**R-phrase(s)**
R36 - Irritating to eyes.
R37 - Irritating to respiratory system.
R38 - Irritating to skin.

**S -phrase(s)**
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36 - Wear suitable protective clothing.
S37 - Wear suitable gloves.
S39 - Wear eye/face protection.

| Components | CAS-No. | **Classification** | **Concentration Limits:** | **Safety Phrases** |
|---|---|---|---|---|
| L-Tartaric Acid | 87-69-4 | | No information | |

**The product is classified in accordance with Annex VI to Directive 67/548/EEC**

**Indication of danger:**
Xi - Irritant.

## 16. OTHER INFORMATION

**Preparation Date:** 01/26/2015
**Revision Date:** 09/17/2018
**Prepared by:** Sonia Owen

**Disclaimer:** All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against

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**End of Safety Data Sheet**