DERVINSA
DERIVADOS VINICOS S.A.

Safety Data Sheet (S.D.S)

Metatartaric Acid

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Section 1 – Product Identification

- ***Product Identification***

Name: Metatartaric acid
Chemical name / Other names: Ácido Metatartárico, Ácido Ditartárico
Chemical Family: C4H5O6•
Chemical Family: Éster interno de ácido orgánico
Name for transportation of hazardous material: not listed.
No. ONU : not listed.
Risk class: not listed.
Packing group: not listed.
Exempt amount : not listed.
Uses: Food and wine industries.

- ***Manufacturer Identification***

Manufacturer: DERIVADOS VÍNICOS S.A
Address: Ruta Provincial 50 s/n – (5584) Palmira – Provincia de Mendoza
Country: Argentina
Site: Palmira – Mendoza
Phones: 54-263-4462668 / 4462669
Toxicological Emergencies: Centro de Investigaciones toxicológicas: 54-11-4613 1100

Section 2 – Hazards Identification

Classification of the substance

According to Regulation (EC) No 1272/2008: It is not considered a dangerous product.

According to Regulation (CE) 67/548/EEC DSCL (EEC): It is not considered a dangerous product.

Section 3 – Composition and Information on Components

Chemical Name	CAS N°	%
Metatartaric acid	56959-20-7	> 38

Section 4 – First Aid

Skin: take off contaminated shoes and clothes. Wash thoroughly affected zone with warm water. Seek medical aid.

Eyes: check for the existence of contact lens. If so extract them. Rinse carefully with plenty of warm water for at least 15 minutes. Get medical attention.

Inhalation: remove injured to fresh air. Apply artificial breath in case of asphyxia. Supply oxygen if breathing difficulties.

Ingestion: Do not induce vomit except medical authorization. Do not attempt to give anything to drink to an unconscious injured. Get medical attention.

Section 5 – Fire-fighting Measures

Firefighting: for minor fires use dry chemicals powder. Otherwise utilize water mist or spray. Avoid the use of direct water jets.

Personal protection in fire-fighting: Air assisted breathing equipment. Appropriate firemen clothes.

Flammability Conditions: combustible at high temperatures

Flash point: No information available

Auto ignition Temperature: No information available.

Flammability Limits: no data available

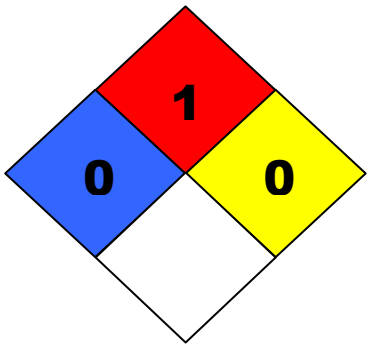
Products of combustion: CO (carbon monoxide) and CO2 (carbon dioxide).

Fire hazards: slightly flammable if heated. Not flammable by shock.

Information for Firefighters

HEALTH

4 Mortal
3 Extreme danger
2 Moderate danger
1 Slightly dangerous
0 Not dangerous



FIRE RISK

Flash point
4 - Less than 22.8 °C
3 - Less than 37.8 °C
2 - Less than 93.3 °C
1 - Over 93.3 °C
0 - Non combustible

PELIGROS ESPECIFICOS

Oxidant OXY
Acid ACID
Alkaline AlK
Corrosive COR
Do not use water ₩
Radiation

REACTIVITY

4 Highly explosive
3 Moderately explosive
2 Violent Chemicals change
1 Unstable at high temp.
0 Stable

Section 6 – Measures to be Taken in Case of Accidental Spillage

Immediate procedure against spills: Evacuate and ventilate the area. Wear suitable protective clothing according to the recommendation of section 8.

Cleaning of losses or spills: Collect and transfer to a container for recovery or disposal by mechanical means. Avoid the generation of dust. Once the material has been removed, treat the spill site with plenty of water or dilute sodium hydroxide solution. Do not allow undiluted material to enter drains, sewers or water courses, in case of happening alert the National Water Authorities or other appropriate regulatory body.

Section 7 – Handling and Storage

Handling: Handle away from heat and sources of ignition and in well-ventilated areas. Containers with product residues present a fire risk. Evacuate the waste under a hood with forced extraction. Ground all containers. Avoid breathing dust. Under no circumstances add water to the product. Use personal protection equipment according to Section 8. In case of insufficient ventilation wear suitable respiratory protection. If you feel unwell during handling, stop work and seek medical attention. Show the product label. Avoid contact with skin and eyes. Keep away from antagonistic reagents such as strong oxidants and reducers, alkalis.

Storage: Hygroscopic product, store in a cool and dry place and keep perfectly sealed containers. Preferably do not leave outdoors. As it is a product for human consumption, avoid storage, transport and handling with toxic products.

Section 8 – Exposure Controls / Personal Protection

Engineering: Ensure enough ventilation in handling and storage areas to avoid formation of explosive mixtures of dust. If necessary install forced air extraction**.** Eyewash stations and safety showers should be ready near the handle and storage points.

Personal protection elements: plastic apron, safety shoes, gloves, goggles, breathing mask with approved filters.

Personal protection equipment in large spills: whole safety suit, boots, gloves, eye protection: goggles. Air assisted breathing protection.

Exposure limits: no data available as specific substance. Max.: 0.000010 Kg/m3 as common dust (Argentine law). See regulations in section 11.

Section 9 – Physical and Chemicals Properties

Molecular Formula: $C_4H_5O_6^-$
Molecular Weight: 150.09
Physical state and appearence: white crystalline solid.
Odor: inodorous.
Taste: acid
Density: 1760 Kg/m3
pH (aqueous solution 5%): 5
Melting Point: 168 – 172 ºC
Solubility 1330 Kg/ m3 de agua. Soluble in methanol and diethyl ether. Insoluble in chloroform.

Section 10 – Stability and Reactivity

Instability conditions: normally stable product. Reacts with oxidizing agents or energetic reducers, and with excessive heat sources.
Hazardous decomposition products: their combustion can release carbon monoxide, carbon dioxide. Combustion products can be irritating and toxic.
Incompatibilities: alkaline substances, excessive heat, sources of ignition, humidity.
Observation: can react violently with silver. Aqueous solutions of the product react with labile metals such as iron or zinc releasing hydrogen, potentially explosive.
Polymerization: does not polymerize.

Section 11 – Toxicological Information

Routes of entry: inhalation and ingestion.
Toxicology in animals:
Lowe lethal dose:
LDL [Rats] - oral; Dose: 0.0075 Kg/Kg
LDL [Rabbits] - oral; Dose: 0.005 Kg/Kg
LDL [Dogs] - Oral; Dose: 0.005 Kg/Kg
Lethal Dose (Conc. 50% death)
LD50 [Rat]- Intravenous; Dose: 0.000485 Kg/Kg

Chronic effects on humans: muscular toxin by inhibition of malic acid production.

Other toxicological effects: risky by skin contact, ingestion and inhalation.

Special observations on other toxic effects on humans:

Acute potential effects:
Skin: irritation
Eyes: irritation
Inhalation: Causes irritation of respiratory tract.
Ingestion: Causes irritation of gastrointestinal tract and nausea, vomits and diarrhea. May affect kidneys, blood and behavior (drowsiness, convulsions)

Potential chronic effects:

Ingestion: Repeated or prolonged ingestion may cause mouth lesions, gastric ulcers, gastrointestinal hyperacidity and symptoms similar to those of metal fume fever (fever, sweating, chills, nausea, vomiting, muscle aches, weakness).

Skin: Prolonged exposure can cause ulcerations or skin lesions.

Total dust not classified:
TWA (8 hours): 0.00001 Kg/m^3. OES (UK HSE EH40)
CMP (8 hours): 0.00001 Kg/m^3. Ley Nacional 19587 - República Argentina

Breathable dust not classified:
TWA (8 hours): 0.000004 Kg/m^3. OES (UK HSE EH40)
CMP (8 hours): 0.000005 Kg/m^3. Ley Nacional 19587 - República Argentina

Section 12 – Eco-Toxicological Information

Biodegradation products: it is not expected to generate biodegradation products in the short term. In the long term they may appear.

Toxicity of the products of biodegradation: neither the product nor its derivatives by biodegradation are toxic.

Section 13 – Information on the Disposal of Products

Waste disposal should comply with federal and local environmental regulations.

Section 14 – Transport Information

Legal Requirements

Trucks Transport (ADR / RID - Argentine Law 24.449 and Mercosur agreement)

Name of product: not listed
Intervention cards (for truck crashes or incidents in transportation)
Warning and risk labels.
DOT Classification (USA): not listed

Sea Transport (IMDG code)

Name of product: not listed
Risk label
Warning labels·

Air Transport (ICAO / IATA)

Name of product: not listed

Section 15 – Regulatory Information

Other classifications:
WHMIS (Canada): Class “E” corrosive solid.
DSCL (EEC): not listed.

Hazards:

National Fire Protection Association (U.S.A.):

Health: 0
Flammability: 1
Reactivity: 0

Section 16– Other Information

The information above is believed to be accurate and represents the best information currently available to Derivados Vínicos S.A. However, Derivados Vínicos S.A. makes no warranty, express or implied, with respect to such information, and assumes no liability resulting from its use.

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Glossary:

S.D.S.: Safety Data Sheet
CAS N°: Number identifying the product in Chemical Abstracts Service.
IMDG: International Maritime dangerous goods code
HMIS: Hazardous material identification system USA
WHMIS: Workplace hazardous material identification system (Canada)
DOT: Department of transportation (USA)
RTECS: Registry of toxic effects of Chemical substances.
TWA: Time weighted average
LD: Lethal dose.
LD50: Lethal dose for 50% of assayed animal population
COD: Chemical oxygen demand.
SRT: Superintendencia de riesgos del trabajo (Argentina)