



SAFETY DATA SHEET

TARTARIC ACID

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. PRODUCT IDENTIFIER

Product name: Tartaric Acid
Product No.: TART
CAS-No.: 87-69-4
EC No.: 201-766-0
REACH No.: 01-2119537204-47
Synonym: 2,3-Dihydroxybutanedioic acid, Succinic acid, 2,3-dihydroxy, L (+) tartaric acid
Chemical Formula: $C_4H_6O_6$

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Recommended use: PH regulator in the food industry;
In the production of processed cheese;
In the production of fruit drinks and wines;
In the pharmaceutical industry - medicines production (anti-diarrheal effect, prebiotic properties);
In cosmetics - water solutions are used.

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

HD Chemicals LTD
UNIT 9 Scott Business Park
PL2 2PB Plymouth UK

Contact Person responsible for SDS: Mr Peter Konefal, e-mail: contact@hdchemicals.co.uk

SECTION 2: HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Classification 67/548/EEC: Xi; R41
Classification – EC 1272/2008: Skin Corrosion/irritation; Category 2 (H315)
Serious eye damage/eye irritation; Category 1 (H318)

Serious Eye Damage/Irritation; Category 2A (H319)

Specific target organ toxicity, single exposure; Respiratory tract irritation; Category 3 (H335)

2.2. LABEL ELEMENTS



SIGNAL WORDS

Danger

RISK PHRASES

R41 Risk of serious damage to eyes

HAZARD PHRASES

H315 Causes skin irritation
H318 Causes serious eye damage
H319 Causes serious eye irritation
H335 May cause respiratory irritation

PROTECTION PHRASES

P261 Avoid breathing dust/fumes/gas/mist/vapours/spray
P264 Wash exposed skin thoroughly after handling
P280 Wear protective gloves/protective clothing/eye protection/face protection
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 Immediately call a doctor/ physician
P337+P313 If eye irritation persists get medical advice/attention

SAFETY PHRASES

S26 In case of contact with eyes rinse immediately with plenty of water and seek medical advice



S36/37/39

Wear suitable protective clothing, gloves and eye/face protection

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

67/548/EEC/1999/45/EC

Composition information – main constituents

Substance name	Mol. Formula	REACH	EINECS No.	CAS-No.	Classification
Tartaric Acid	C ₄ H ₆ O ₆	01-2119537204-47	201-766-0	87-69-4	Xi; R41

EC 1272/2008

Composition information – main constituents

Substance name	Mol. Formula	REACH	EINECS No.	CAS-No.	Classification
Tartaric Acid	C ₄ H ₆ O ₆	01-2119537204-47	201-766-0	87-69-4	H315, H318, H319, H335

SECTION 4: FIRST AID MEASURES**4.1. DESCRIPTION OF FIRST AID MEASURES**

First-aid measures general: Consult a physician when you feel unwell. Show this safety data sheet to the doctor in attendance.

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

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Get medical attention if any discomfort continues. Do not induce vomiting.

Skin contact: Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.



4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Inhalation:	Causes respiratory tract irritation.
Ingestion:	Causes gastrointestinal tract irritation with nausea, vomiting and diarrhea.
Skin contact:	Causes skin irritation.
Eye contact:	Causes eye burns. Causes serious eye damage.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. EXTINGUISHING MEDIA

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Adjust extinguishing media to the surrounding fire. Use foam, dry powder, carbon dioxide, water spray or sand.

Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Dust can form an explosive mixture in air. Fine dust dispersed in air may ignite. Thermal decomposition can lead to release of irritating gases and vapours. Hazardous combustion products carbon monoxide (CO), carbon dioxide (CO₂).

5.3. ADVICE FOR FIRE-FIGHTERS

Wear full protective clothing must be worn in case of fire and self-contained positive pressure breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Wear suitable protective equipment (splash goggles, protective suit, boots, gloves and self-contained breathing apparatus) to prevent any contamination of skin, eyes and personal clothing. Ensure adequate ventilation of the working area. Avoid contact with skin and eyes. Avoid breathing vapours, mist or gas. Avoid formation of dust. Keep unprotected persons away. Evacuate personnel to a safe area.

For personal protection see section 8.1.



6.2. ENVIRONMENTAL PRECAUTIONS

Avoid release to the environment. Do not allow to enter sewers/ surface or ground water. Do not allow to enter into soil/subsoil. Prevent further leakage or spillage if safe to do so. Use appropriate container to avoid environmental contamination. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Sweep up or vacuum up spillage and collect in suitable container for disposal. Keep in suitable, closed containers for disposal. Minimize generation of dust. Store away from other materials.

SECTION 7: HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING

Handle in accordance with good industrial hygiene and safety practice. Avoid formation of dust. Do not inhale dust/smoke/mist. Ensure adequate ventilation of the working area. Wear personal protective equipment. Avoid contact with eyes and skin. Do not eat or drink during the process, washing hands afterwards with suitable cleaning products. Remove contaminated clothing and shoes. Wash clothing before re-using. Avoid the formation or spread of mists in the air.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Keep in a cool, dry, well ventilated area. Keep in original tightly closed containers. Keep away from food, drink and animal feeding stuffs. Keep away from moisture, heat and other sources of ignition. Keep away from incompatibles such as oxidizing agents, reducing agents, alkalis.

7.3. SPECIFIC END USE(S)

See section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. CONTROL PARAMETERS/EXPOSURE GUIDELINES

Occupational Exposure Limit Values (Tartaric Acid):

CAS NO	Exposure limit	Value	Name of Agent
87-69-4	TWA – 8 Hrs	5,2 mg/m ³	inhalation
87-69-4	STEL – 15 Min	Not available	Not available

Engineering controls: Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Wash hands before breaks and at the end of the working day. Use as far as possible in a closed system. Provide a regular control of the atmosphere.



EYE PROTECTION



FACE SHIELD



RESPIRATOR



PROTECTION WEAR



HAND PROTECTION

Protective equipment: Use protective tightly fitting safety goggle (European standard - EN 166), face shield, gloves (European standard - EN 374) and long sleeved clothing to prevent skin, body and eyes exposure.

Respiratory equipment: Respiratory protection not required in normal conditions. But in case of dust, wear suitable respiratory equipment. Use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges.

Skin and body protection: Wear appropriate protective gloves and clothing to prevent skin exposure. Wear complete suit protecting against chemicals. The glove material has to be impermeable and resistant to the product. Protective gloves should be replaced at first signs of wear. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact. Wash and dry hands.

Eye/Face protection: Face shield and safety glasses. Ensure eye bath is to hand.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Solid
Colour:	White
Odour:	Odourless



Initial boiling point (°C):	No data available
Melting point (°C):	168 °C
Freezing point:	No data available
Relative density:	1.76 g/cm ³
Specific gravity / density:	Not available
Vapour density:	Not available
Vapour pressure:	Not available
Flash point (°C):	Not available
Molecular mass:	150.09 g/mol
Auto-ignition temperature:	Not applicable
Oxidizing properties:	Not available
Decomposition temperature:	Not available
Molecular formula:	C ₄ H ₆ O ₆

SECTION 10: STABILITY AND REACTIVITY

10.1. REACTIVITY

Tartaric Acid is stable under normal conditions of use, storage and transport.

10.2. CHEMICAL STABILITY

This product is stable under normal conditions and under recommended usage and storage.

10.3. POSSIBILITY OF HAZARDOUS REACTIONS

When heated can decompose. May liberate toxic gases.

10.4. CONDITIONS TO AVOID

Keep away from food, drink and animal feeding stuffs. Keep away from moisture, heat and other sources of ignition.

10.5. INCOMPATIBLE MATERIALS

May liberate toxic gases. Keep away from incompatibles such as oxidizing agents, reducing agents, alkalis, bases.



10.6. HAZARDOUS DECOMPOSITION

Dust can form an explosive mixture in air. Fine dust dispersed in air may ignite. Thermal decomposition can lead to release of irritating gases and vapours. Hazardous combustion products carbon monoxide (CO), carbon dioxide (CO₂).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

TOXIC DOSE	LD50 Oral – Rat – > 2000 mg/kg LD50 Dermal – Rat – > 2000 mg/kg
Inhalation:	Causes respiratory tract irritation.
Ingestion:	Causes gastrointestinal tract irritation with nausea, vomiting and diarrhea.
Skin contact:	Causes skin irritation.
Eye contact:	Causes eye burns. Causes serious eye damage.

SECTION 12: ECOLOGICAL INFORMATION

12.1. TOXICITY

Aquatic Toxicity:

Toxicity to freshwater fish:	LC50: 150 mg/l, 96h
Toxicity to water flea:	EC50: 93,3 mg/l, 48h (Daphnia magna)
Toxicity to algae:	EC50: 51,4 mg/l, 72h

12.2. PERSISTENCE AND DEGRADABILITY

Readily biodegradable.

12.3. BIOACCUMULATIVE POTENTIAL

Low potential for bioaccumulation.

12.4. MOBILITY

Tartaric Acid is high mobility in soil.

12.5. RESULTS OF PBT AND VPVB ASSESSMENT

No data available.



12.6. OTHER ADVERSE EFFECTS

Do not empty into drains.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste disposal recommendations: Disposal of tartaric acid should be in accordance with local and national legislation. Processing, use or contamination of this product may change the waste management options. Should not be released into the environment. Empty packaging can have residues and are subject to proper waste disposal. Dispose of container and unused contents in accordance with applicable member state and local requirements.

Uncleaned packaging: Disposal must be made according to official regulations.

SECTION 14: TRANSPORT INFORMATION

IMDG

UN number	N/A
UN proper shipping name	N/A
Transport hazard class(es)	N/A
Packing group	N/A

ADR/RID

UN number	N/A
UN proper shipping name	N/A
Transport hazard class(es)	N/A
Packing group	N/A

IATA

UN number	N/A
UN proper shipping name	N/A
Transport hazard class(es)	N/A
Packing group	N/A

SECTION 15: REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).



Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

15.2 CHEMICAL SAFETY ASSESSMENT

For this product a chemical safety assessment was not carried out.

SECTION 16: OTHER INFORMATION

General information

The information contained in this safety data sheet is provided in accordance with the requirements of the regulations. The product should not be used for purposes other than those shown in section 1 without first referring to the supplier and obtaining written handling instruction. As the specific conditions of use of the product are outside the suppliers control, the user is responsible for ensuring that the requirements of relevant legislation are complied with.

Revision Comments

This information is provided in a revised format to that previously produced.

Revision Date: 01/10/2018

Revision: 01

Safety Data Sheet Status Approved.

Date printed 01/10/2018

Signature Initials P.K.

DISCLAIMER:

If this product is re-distributed and re-formulated for sale, details of its hazards and recommended methods for safe handling must be passed to customers. Customers are urged to ensure that the product is entirely suitable for their own purpose. It is the customer's responsibility to ensure that a suitable and sufficient assessment of the risks created by a work activity using this product is undertaken before this product is used.

NOTE:

The information contained in this Safety Data Sheet does not constitute the users own assessment of workplace risk as required by other Health & Safety Legislation (e.g. the Health and Safety at Work Act, 1974; the Control of Substances Hazardous to Health Regulations, 1988). The data given here is based on current knowledge and experience. The purpose of this data sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the product's properties.