According to Regulation (EC) No. 1907/2006, Annex II, Amended by REGULATION (EU) No 453/2010,

According to Regulation (EC) No. 1272/2008

(+)-tartaric acid

Supplied by:

Rocky Mountain Reagents

SCIENTIFIC SOLUTIONS SINCE 1951

4621 Technology Drive, Golden, CO 80403 ph: (303) 762-0800 fax: (303) 762-1240

Part #: T1028

Printing date:30/03/2012

SDS Record Number: CSSS-TCO-010-111279 Version 1.1 Revision date: 30/03/2012

1 Identification of the substance and of the company/undertaking

1.1 Product identifier:

Identification on the label/Trade name:

(+)-tartaric acid

Additional identification:

Not available

Identification of the product:

CAS# 87-69-4; EC# 201-766-0

Index Number:

Not available

REACH Pre-registration No.:

17-2119384585-26-0000

1.2 Relevant identified uses of the substance and uses advised against:

1.2.1 Identified uses:

Used as an acidulant of beverages and other foods. L(+)-Tartaric acid can be used for gypsum production.

1.2.2 Uses advised against:

Not available.

1.3 Details of the supplier of the safety data sheet:

Supplier(Only representative):

Supplier(Manufacturer):

CHANGMAO BIOCHEMICAL ENGINEERING CO., LTD.

Address:

1228 north changjiang rd, xinbei district, Changzhou city, Jiangsu province,

P.R.China.

Contact person(E-mail):

Gxy@cmbec.com

Telephone:

+86-519-85776832

Fax:

+86-519-85776803

1.4 Emergency telephone Number:

+86-519-85776832

Available outside office hours?

YES

NO

Х

2 Hazards Identification

2.1 Classification of the substance

2.1.1 Classification:

The substance is classified as following according to 67/548/EEC and REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard statement
Skin Irrit. 2	H315
Eye Irrit. 2	H319
STOT SE 3	H335

For full text of H- phrases: see section 2.2.

67/548/EEC	
Hazards characteristics	R-Phrases
Xi	R36/37/38

For full text of R- phrases: see section 16.

2.1.2 The most important adverse effects

2.1.2.1 The most important adverse physicochemical effects:

Not applicable.

2.1.2.2 The most important adverse human health effects:

Chemical Inspection & Regulation Service Limited



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2.1.2.3 The most important adverse environmental effects:

Not applicable.

2.2 label elements

Hazard Pictograms:



Signal Word(S):

Warning

Hazard Statement:

Precautionary Statement:

2.3 Other hazards

Not available (PBT,vPvB, Substance is an endocrine disruptor etc.)

Composition/information on ingredients

Substance/Mixture:

Substance

Ingredient(s):

Chemical Name	Pre-registration No.	CAS No.	EC No.	Concentration
(+)-tartaric acid	17-2119384585-26-0000	87-69-4	201-766-0	100%

First aid measures

4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

4.1.1 In case of inhalation:

Remove to fresh air. Get medical attention for any breathing difficulty.

4.1.2 In case of skin contact:

Wash exposed area with soap and water. Get medical advice for irritation develops.

4.1.3 In case of eyes contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician if irritation persists.

4.1.4 In case of ingestion:

If swallowed, give several glasses of water to drink to dilute. If large amounts were swallowed or symptoms occur, get medical advice.

4.2 Most important symptoms and effects, both acute and delayed

4.3 Indication of any immediate medical attention and special treatment needed

If skin irritation or rash occurs, get medical advice/attention.

5 Fire-Fighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Water spray, dry chemical, foam.

Unsuitable extinguishing media: Not available.

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5.2 Special hazards arising from the substance or mixture

Development of hazardous combustion gases or vapors in the event of fire due to product packages.

5.3 Advice for fire-fighters:

Wear self-contained breathing apparatus (positive pressure, if available) and full protective clothing.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel:

Remove ignition sources. Provide adequate ventilation. Avoid inhalation of vapour or dust. Avoid skin and eye contact. Wear protective gloves/protective clothing/eye protection/face protection.

6.1.2 For emergency responders:

Wear an appropriate NIOSH/MSHA approved respirator if mist, vapor or dust is generated.

6.2 Environmental Precautions:

Do not allow material to be released to the environment without proper governmental permits

6.3 Methods for Containment and Cleaning up:

Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

6.5 Additional information:

Wet clean or vacuum up solids.

Don't use a brush or compressed air for cleaning surfaces or clothing.

Clear spills immediately.

7 Handling and storage

7.1 Precautions for safe handling:

7.1.1 Protective measures:

Wash thoroughly after handling. Use with adequate ventilation. Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Store protected from light.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a cool, dry, ventilated area. Protect against physical damage. Isolate from any source of heat or ignition.

7.3 Specific end use(s):

Not applicable.

8 Exposure control/personal protection

8.1 Control parameters:

- 8.1.1 Occupational exposure limits: Not available.
- 8.1.2 Additional exposure limits under the conditions of use: Not available.

Chemical Inspection & Regulation Service Limited

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8.1.3 DNEL/DMEL and PNEC-Values: Not available

8.2 Exposure controls

8.2.1Appropriate engineering controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection

Wear appropriate protective eyeglasses.

Hand protection

Wear appropriate protective gloves.

Body protection

Wear appropriate protective clothing to prevent skin exposure.

Respiratory protection

In case of dust. Wear suitable respiratory equipment.

Thermal hazards

Wear suitable protective clothing to prevent heat.

8.2.3 Environmental exposure controls:

Avoid discharge into the environment.

According to local regulations, Federal and official regulations.

Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:

Solid

Colour:

White

Odour:

Odourless

Odour threshold:

Not available

pH:

2.2

Melting point/range (°C):

168 - 170°C

Boiling point/range (°C):

158-158.5℃

Flash point (°C):

209℃

Evaporation rate:

Not available

Flammability (solid, gas);

not flammable

Ignition temperature (°C):

Not available

Upper/lower flammability/explosive limits:

Not available

Vapour pressure (20°C):

< 5 Pa

Vapour density:

5.18

Relative Density (20°C):

1.7598 g/cm³

Not available

Bulk density (kg/m³):

1390 g/L

Water solubility at 20°C: n-Octanol/Water (log Po/w):

log Pow=-1.43

Auto-ignition temperature:

425℃

> 170°C

Decomposition temperature:

Viscosity, dynamic (mPa s):

Not available Not available

Explosive properties: Oxidising properties:

Not available

9.2. Other information:

Fat solubility(solvent- oil to be specified) etc:

Not available

Surface tension:

Dissociation constant in water(pKa):

Not available

Not available

Oxidation-reduction Potential:

Not available

Specific gravity:

Not available

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10 Stability and reactivity

10.1 Reactivity:

The substance is stable under normal storage and handling conditions.

10.2 Chemical stability:

Stable at room temperature in closed containers under normal storage and handling conditions.

10.3 Possibility of hazardous reactions:

No dangerous reactions known.

10.4 Conditions to avoid:

Incompatible materials. Dust, excessive heat.

10.5 Incompatible materials:

Not available.

10.6 Hazardous decomposition products:

When ignited it gradually decomposes emitting an odour resembling that of burning sugar.

11 **Toxicological information**

11.1 Toxicokinetics, metabolism and distribution

Non-human toxikological data:

Not available

11.2 Information on toxicological effects

Acute toxicity:

LD50(Oral, Mouse):

4360mg/kg

LD50(Dermal Rabbit):

Not available

LC50(Inhalation, Rat):

Not available

Skin corrosion/Irritation:

Serious eye damage/irritation:

Respiratory or skin sensitization:

Not classified

Germ cell mutagenicity:

Not classified

Carcinogenicity:

Not classified

Reproductive toxicity:

Not classified

STOT- single exposure:

STOT-repeated exposure:

Not classified

Aspiration hazard:

Not classified

Ecological information

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Toxicity:

Acute	toxicity	Time	Species	Method	Evaluation	Remarks
LC50	150mg/l	96h	Fish	OECD 203	N/A	N/A
EC50	230mg/l	48h	Daphnia	OECD 202	N/A	N/A
EC50	N/A	72h	Algae	OECD 201	N/A	N/A

Persistence and degradability:

Not applicable.

Bioaccumulative potential:

Not applicable.

Mobility in soil:

Not applicable.

Results of PBT&vPvB assessment:

Not applicable.

Other adverse effects:

Do not empty into drains.

13 Disposal considerations

13.1 Waste treatment methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

13.2 Product / Packaging disposal:

If empty container retains product residues, all label precautions must be observed. Return for reuse or dispose according to national or local regulations.

Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number:	Not regulated	Not regulated	Not regulated
UN Proper shipping name:	Not regulated	Not regulated	Not regulated
Transport hazard Class:	Not regulated	Not regulated	Not regulated
Packaging group:	Not regulated	Not regulated	Not regulated
Environmental hazards:	Not regulated	Not regulated	Not regulated
Special precautions for user:	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not regulated	Not regulated	Not regulated

15 Regulation information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant information regarding authorization:

Not applicable.

Relevant information regarding restriction:

Not applicable.

Other EU regulations:

Employment restrictions concerning young person must

be observed. For use only by technically qualified

individuals.

Other National regulations:

Not applicable

Chemical Safety Assessment has been carried out?

YES

NO

16 Other information

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16.1 Indication of changes

Version 1.1 Amended by EU No 453/2010

16.2 Relevant R- phrases (number and full text):

16.3 Training instructions:

Not applicable.

16.4 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

16.5 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.