An ISO 9001 : 2015 & GMP Certified Company 101, Aarkay Ruby Industrial Estate (1B), Opp Shree Narayan Industrial Estate, Chinchpada, Vasai East, Waliv, Maharashtra 401208. Tel : + 91 98200 41841 Email : <u>info@ottokemi.com</u> Web : <u>www.ottokemi.com</u>

MATERIAL SAFETY DATA SHEET (MSDS)

1. Product identifiers

Product name: L-(+)-Tartaric acid ACS reagent, ≥99.5% Product Code: T 1228 CAS No : 87-69-4 1.2. Relevant identified uses of the substance or mixture and uses advised against Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet
Company identification
OTTO CHEMIE PVT LTD
101, Aarkay Ruby Industrial Estate(1B), Opp Shree Narayan Industrial Estate, Chinchpada, Vasai East, Waliv, Maharashtra 401208.
Email info@ottokemi.com

1.4. Emergency telephone number Phone no. : + 91 22 2207 0099 (9:00am - 6:00 pm)

2.Hazard identification

2.1Classification of the substance or mixture Serious eye damage, Category 1 2.2GHS label elements, including precautionary statements Pictogram(s) Signal word Danger Hazard statement(s) H318 Causes serious eye damage Precautionary statement(s) Prevention P280 Wear protective gloves/protective clothing/eye protection/face protection. Response 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 POISON CENTER/doctor/\u2026 Storage none Disposal none 2.30ther hazards which do not result in classification none

3.Composition/information on ingredients

3.1Substances

Chemical name Common names and synonyms CAS number EC number Concentration

(+)-tartaric acid 2,3-dihydroxybutanedioic acid 87-69-4 none 100%

4.First-aid measures

4.1Description of necessary first-aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

Fresh air, rest. Half-upright position. Artificial respiration may be needed. Refer for medical attention.

In case of skin contact

Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention .

In case of eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention. If swallowed

Rinse mouth. Do NOT induce vomiting. Refer for medical attention .

4.2Most important symptoms/effects, acute and delayed

no data available

4.3Indication of immediate medical attention and special treatment needed, if necessary no data available

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5.Fire-fighting measures

5.1Extinguishing media
Suitable extinguishing media
Use water spray, powder, foam, carbon dioxide.
5.2Specific hazards arising from the chemical no data available
5.3Special protective actions for fire-fighters
Wear self-contained breathing apparatus for firefighting if necessary.

6.Accidental release measures

6.1Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2Environmental precautions

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting.

6.3Methods and materials for containment and cleaning up

Pick up and arrange disposal. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7.Handling and storage

7.1Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2. 7.2Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

8.Exposure controls/personal protection

8.1Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

8.2Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. 8.3Individual protection measures, such as personal protective equipment (PPE) Eve/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique(without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection Wear dust mask when handling large quantities. Thermal hazards

no data available

9. Physical and chemical properties

Physical state white crystals Colour no data available Odour no data available Melting point/ freezing point 15\u00b0C(lit.) Boiling point or initial boiling point and boiling range 85\u00b0C/20mmHg(lit.) Flammability Combustible. Lower and upper explosion limit / flammability limit no data available

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Flash point 150\u00b0C Auto-ignition temperature 425\u00b0C Decomposition temperature no data available pH no data available Kinematic viscosity no data available Solubility In water:1390 g/L (20 \u00baC) Partition coefficient noctanol/water (log value) -0.76 (calculated) Vapour pressure no data available Density and/or relative density 1.76 Relative vapour density 5.18 (vs air) Particle characteristics no data available

10.Stability and reactivity

10.1Reactivity no data available 10.2Chemical stability Stable under recommended storage conditions. 10.3Possibility of hazardous reactions no data available 10.4Conditions to avoid no data available 10.5Incompatible materials no data available 10.6Hazardous decomposition products no data available

11.Toxicological information

Acute toxicity Oral: no data available Inhalation: no data available Dermal: no data available Skin corrosion/irritation no data available Serious eve damage/irritation no data available Respiratory or skin sensitization no data available Germ cell mutagenicity no data available Carcinogenicity no data available Reproductive toxicity no data available STOT-single exposure no data available STOT-repeated exposure no data available Aspiration hazard no data available

12. Ecological information

12.1Toxicity Toxicity to fish: no data available Toxicity to daphnia and other aquatic invertebrates: no data available Toxicity to algae: no data available Toxicity to microorganisms: no data available 12.2Persistence and degradability no data available

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12.3Bioaccumulative potential

no data available

- 12.4Mobility in soil
- no data available

12.50ther adverse effects

no data available

13.Disposal considerations

13.1Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems. Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14.Transport information

14 1UN Number ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods. 14.2UN Proper Shipping Name ADR/RID: unknown IMDG: unknown IATA: unknown 14.3Transport hazard class(es) ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods. 14.4Packing group, if applicable ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods. 14.5Environmental hazards ADR/RID: no IMDG: no IATA: no 14.6Special precautions for user no data available 14.7Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code no data available 15.Regulatory information 15.1Safety, health and environmental regulations specific for the product in question Chemical name Common names and synonyms CAS number EC number (+)-tartaric acid 2,3-dihydroxybutanedioic acid 87-69-4 none European Inventory of Existing Commercial Chemical Substances (EINECS) Listed. EC Inventory Listed.

United States Toxic Substances Control Act (TSCA) Inventory Listed.

China Catalog of Hazardous chemicals 2015 Not Listed.

New Zealand Inventory of Chemicals (NZIoC) Listed.

Philippines Inventory of Chemicals and Chemical Substances (PICCS) Listed.

Vietnam National Chemical Inventory Listed.

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC) Listed.

16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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