



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 453/2010)

Revision date: 30.07.2014

Version: 4.0

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

| | |
|--------------------------------|--|
| Trade name/designation: | L(+)-Tartaric acid AnalAR NORMAPUR® analytical reagent |
| Product No.: | 20718 (VWR International) |
| Substance name: | L(+)-Tartaric acid |
| CAS No.: | 87-69-4 |
| INDEX No.: | 000-000-00-0 |
| REACH registration No.: | 01-2119537204-47 |
| Other means of identification: | |

1.2 Relevant identified uses of the substance or mixture and uses advised against

| | |
|---------------------------|--------------------------|
| Relevant identified uses: | General chemical reagent |
|---------------------------|--------------------------|

1.3 Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor)

United Kingdom

VWR International Ltd.

| | |
|---------------------------|------------------------------|
| Street | Hunter Boulevard, Magna Park |
| Postal code/city | Lutterworth, LE17 4XN |
| Telephone | 0800 22 33 44 |
| Telefax | 01455 55 85 86 |
| E-mail (competent person) | vwr@sds@eu.vwr.com |

Emergency telephone

| | |
|-----------|---------------------|
| Telephone | +44 (0) 1270 502894 |
|-----------|---------------------|

Ireland

VWR International Ltd.

| | |
|---------------------------|--|
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| Postal code/city | Ballycoolin, Dublin 15 |
| Telephone | +353 1 8822222 |
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VWR International (Northern Ireland) Ltd.

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Netherlands

VWR International B.V.

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Switzerland

VWR International GmbH

| | |
|---------------------------|---------------------|
| Street | Lerzenstrasse 16/18 |
| Postal code/city | 8953 Dietikon |
| Telephone | +44 (0) 745 13 13 |
| Telefax | +44 (0) 745 13 10 |
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Emergency telephone

| | |
|-----------|-----|
| Telephone | 145 |
|-----------|-----|



SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No. 1272/2008 [CLP]

| Hazard classes and hazard categories | Hazard statements |
|--------------------------------------|-------------------|
| Eye irritation, category 2 | H319 |

2.2 Label elements

2.2.1 Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms



Signal word: Warning

| Hazard statements | |
|-------------------|--------------------------------|
| H319 | Causes serious eye irritation. |

| Precautionary statements | |
|--------------------------|--|
| 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. |

Other hazards

SVHC No

SECTION 3: Composition / information on ingredients

3.1 Substances

| | |
|------------------------|------------------|
| Molecular formula | C4H6O6 |
| Molecular weight | 150,09 g/mol |
| CAS No. | 87-69-4 |
| REACH registration No. | 01-2119537204-47 |
| INDEX No. | 000-000-00-0 |

SECTION 4: First aid measures

4.1 General information

When in doubt or if symptoms are observed, get medical advice. If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps. Change contaminated, saturated clothing. Do not leave affected person unattended.



After inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin reactions, consult a physician.

After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye. Remove contact lenses, if present and easy to do. Continue rinsing.

In case of ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting. Give nothing to eat or drink.

4.2 Most important symptoms and effects, both acute and delayed

no data available

4.3 Indication of any immediate medical attention and special treatment needed

no data available

4.4 Self-protection of the first aider

First aider: Pay attention to self-protection!

4.5 Information to physician

no data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

Extinguishing media which must not be used for safety reasons

no restriction

5.2 Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon dioxide (CO₂) Carbon monoxide Sulphur oxides

5.3 Advice for firefighters

DO NOT fight fire when fire reaches explosives. In case of fire: Wear self-contained breathing apparatus.

5.4 Additional information

Do not allow run-off from fire-fighting to enter drains or water courses. Do not inhale explosion and combustion gases. Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen. Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid generation of dust. Do not breathe dust. Provide adequate ventilation. Use personal protection equipment.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.



6.3 Methods and material for containment and cleaning up

Spilled product must never be returned to the original container for recycling. Take up dust-free and set down dust-free. Collect in closed and suitable containers for disposal.

6.4 Additional information

Clear spills immediately.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid: Inhalation Avoid contact with skin and eyes. Use extractor hood (laboratory). If handled uncovered, arrangements with local exhaust ventilation have to be used. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. Usual measures for fire prevention.

7.2 Conditions for safe storage, including any incompatibilities

storage temperature: 15-25 °C

Storage class: 10-13

Keep container tightly closed in a cool, well-ventilated place.

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Does not contain substances above concentration limits fixing an occupational exposure limit.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used.

8.2.2 Personal protection equipment

Wear suitable protective clothing. When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn. For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes).

Eye/face protection

Eye glasses with side protection DIN-/EN-Norms: DIN EN 166

Recommendation: VWR 111-0432

Skin protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. Recommended glove articles DIN-/EN-Norms: DIN EN 374 In the case of wanting to use the gloves again, clean them before taking off and air them well.

By short-term hand contact

Suitable material:

NBR (Nitrile rubber)

Thickness of the glove material:

0,12 mm

Breakthrough time (maximum wearing time):

> 480 min

Recommended glove articles:

VWR 112-0998

By long-term hand contact

| | |
|---|-------------------------|
| Suitable material: | NBR (Nitrile rubber) |
| Thickness of the glove material: | 0,38 mm |
| Breakthrough time (maximum wearing time): | > 480 min |
| Recommended glove articles: | VWR 112-3717 / 112-1381 |

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

| | |
|--|---------------------------------------|
| Suitable respiratory protection apparatus: | Filtering Half-face mask (DIN EN 149) |
| Recommendation: | VWR 111-0451 |
| Suitable material: | P3 |
| Recommendation: | no data available |

Additional information

Wash hands before breaks and after work. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

8.2.3 Environmental exposure controls

no data available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|----------------------|-------------------|
| (a) Appearance | |
| Physical state: | solid |
| Colour: | white |
| (b) Odour: | no data available |
| (c) Odour threshold: | no data available |

Safety relevant basic data

| | |
|--|---------------------------------|
| (d) pH: | 1.6 (25 °C; 100 g/l) |
| (e) Melting point/freezing point: | 168 - 170 °C |
| (f) Initial boiling point and boiling range: | 399 °C (1013 hPa) |
| (g) Flash point: | 150 °C |
| (h) Evaporation rate: | no data available |
| (i) Flammability (solid, gas): | not applicable |
| (j) Upper/lower flammability or explosive limits | |
| Lower explosion limit: | no data available |
| Upper explosion limit: | no data available |
| (k) Vapour pressure: | no data available |
| (l) Vapour density: | no data available |
| (m) Relative density: | 1.759 g/cm ³ (20 °C) |
| (n) Solubility(ies) | |
| at 20 °C: | 1390 g/l (20 °C) |
| Soluble (g/L) in: | no data available |
| (o) Partition coefficient: n-octanol/water: | -1.43 (20 °C) |
| (p) Auto-ignition temperature: | 425 °C |
| (q) Decomposition temperature: | no data available |
| (r) Viscosity | |
| Kinematic viscosity: | no data available |
| Dynamic viscosity: | no data available |
| (s) Explosive properties: | not applicable |
| (t) Oxidising properties: | not applicable |



9.2 Other information

| | |
|------------------------|-----------------------|
| Bulk density: | no data available |
| Refraction index: | 1.464 (25 °C; 589 nm) |
| Dissociation constant: | no data available |
| Surface tension: | no data available |
| Henry constant: | no data available |

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

no data available

10.7 Additional information

no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute effects

Acute oral toxicity:

LDLo (oral. Rat): 7500 mg/kg (RTECS)

Acute dermal toxicity:

no data available

Acute inhalation toxicity:

no data available

Irritant and corrosive effects

Primary irritation to the skin:

not applicable

Irritation to eyes:

Causes serious eye irritation.

Irritation to respiratory tract:

not applicable



Respiratory or skin sensitisation

In case of skin contact: not sensitising

After inhalation: not sensitising

STOT-single exposure

not applicable

STOT-repeated exposure

not applicable

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

No indication of human carcinogenicity.

Germ cell mutagenicity

No indications of human germ cell mutagenicity exist.

Reproductive toxicity

No indications of human reproductive toxicity exist.

Aspiration hazard

not applicable

Other adverse effects

no data available

Additional information

no data available

SECTION 12: Ecological information

12.1 Ecotoxicity

Acute (short-term) fish toxicity:

no data available

Chronic (long-term) fish toxicity:

no data available

Acute (short-term) daphnia toxicity:

no data available

Chronic (long-term) daphnia toxicity:

no data available

Acute (short-term) algae toxicity:

no data available

Chronic (long-term) algae toxicity:

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water: -1,43



12.4 Mobility in soil:

no data available

12.5 Results of PBT/vPvB assessment

no data available

12.6 Other adverse effects

no data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Appropriate disposal / Product

Dispose according to local legislation. Consult the appropriate local waste disposal expert about waste disposal. Send to a hazardous waste incinerator facility under observation of official regulations.

Waste code product: no data available

Appropriate disposal / Package

Dispose according to local legislation. Handle contaminated packages in the same way as the substance itself.

Additional information

no data available

SECTION 14: Transport information

No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information

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

General rules

Water hazard class (WGK): slightly hazardous to water (WGK 1)

EU: 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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Text with EEA relevance)

EU: 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance)

EU: Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Text with EEA relevance)

15.2 Chemical Safety Assessment

no data available



SECTION 16: Other information

Abbreviations and acronyms

ACGIH - American Conference of Governmental Industrial Hygienists
 ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
 AGS - Committee on Hazardous Substances (Ausschuss für Gefahrstoffe)
 CLP - Regulation on Classification, Labelling and Packaging of Substances and Mixtures
 DFG - German Research Foundation (Deutsche Forschungsgemeinschaft)
 Gestis - Information system on hazardous substances of the German Social Accident Insurance (Gefahrstoffinformationssystem der Deutschen Gesetzlichen Unfallversicherung)
 IATA-DGR - International Air Transport Association-Dangerous Goods Regulations
 ICAO-TI - International Civil Aviation Organization-Technical Instructions
 IMDG - International Maritime Code for Dangerous Goods
 LTV - Long Term Value
 NIOSH - National Institute for Occupational Safety and Health
 OSHA - Occupational Safety & Health Administration
 PBT - Persistent, Bioaccumulative and Toxic
 RID - Regulation concerning the International Carriage of Dangerous Goods by Rail
 STV - Short Term Value
 SVHC - Substances of Very High Concern
 vPvB - very Persistent, very Bioaccumulative

R-phrases

| | |
|-----|---------------------|
| R36 | Irritating to eyes. |
|-----|---------------------|

S-phrases

| | |
|--------|-----------------------------------|
| S24/25 | Avoid contact with skin and eyes. |
|--------|-----------------------------------|

Additional information

Indication of changes: general update

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.