

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 07 Mar 2025

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

L-Ascorbic acid

1.1. Catalog No.:

673028

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

HPC Standards GmbH
Am Wieseneck 7

04451 Cunnersdorf
Deutschland

Tel. +49 34291 3372-36
Fax. +49 34291 3372-39
contact@hpc-standards.com

1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
Regulation (EC) No 1272/2008
This substance is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.2. Label elements

2.2.1. Pictogram

2.2.2.

2.2. Label elements
This substance is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]
Hazard statements
This substance is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]
2.3. Other hazards
No information available.
This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Chemical name: Ascorbic acid
50-81-7
Weight-%: 100

REACH registration number: -

EC No: 200-066-2

Classification

according to

Regulation (EC) No.

1272/2008 [CLP]: -

Specific

concentration

limit (SCL)

M-Factor

M-Factor

(long-term)

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name: Ascorbic acid

50-81-7

Oral LD50 mg/kg: 11900

Dermal LD50 mg/kg: No data available

Inhalation LC50 - 4

hour - dust/mist - mg/L: No data available

Inhalation LC50 - 4

hour - vapour - mg/L: No data available

Inhalation LC50 - 4

hour - gas - ppm: No data available

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

3.1.1. Formula

C₆H₈O₆

3.1.2. Molecular Weight (g/mol)

176.12

3.1.3. CAS-No.

50-81-7

4. FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.

Skin contact Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor.

Ingestion Rinse mouth.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the

chemical

No information available.

5.3. Advice for firefighters

Special protective equipment and

precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

General hygiene considerations Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Please refer to the manufacturers certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC)

No information available.

8.2. Exposure controls

Personal protective equipment

Eye/face protection Avoid contact with eyes. Wear safety glasses with side shields (or goggles).

Hand protection The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374. Wear protective nitrile rubber gloves.

Skin and body protection Wear suitable protective clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection.

Environmental exposure controls Do not allow into any sewer, on the ground or into any body of water.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state Solid

Appearance Solid

Colour white

Odour Pleasant.

Odour threshold No information available

Property Values Remarks o Method

Melting point / freezing point 190 °C None known

Boiling point / boiling range No data available None known

Flammability (solid, gas) No data available None known

Flammability Limit in Air None known

Upper flammability or explosive limits

No data available

Lower flammability or explosive limits

No data available

Flash point No data available None known

Autoignition temperature 380 °C None known

Decomposition temperature 190 °C None known

pH 2.1 - 2.6 None known

pH (as aqueous solution) No data available No information available

Kinematic viscosity No data available None known

Dynamic viscosity No data available None known

Water solubility Miscible in water 333 g/L @ 20 °C

Solubility(ies) No data available None known

Partition coefficient -1.64 None known

Vapour pressure No data available None known

Relative density 1.65 g/cm³ @ 25 °C
Bulk density No data available
Liquid Density No data available
Relative vapour density No data available None known
Particle characteristics
Particle Size No information available
Particle Size Distribution No information available
9.2. Other information
Molecular weight 176.13
Molecular formula C₆ H₈ O₆
9.2.1. Information with regards to physical hazard classes
Not applicable 190 °C 190 °C
9.2.2. Other safety characteristics
No information available

10. STABILITY AND REACTIVITY

10.1. Reactivity
Reactivity No information available.
10.2. Chemical stability
Stability Stable under normal conditions.
Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge None.
10.3. Possibility of hazardous reactions
Possibility of hazardous reactions None under normal processing.
10.4. Conditions to avoid
Conditions to avoid None known based on information supplied.
10.5. Incompatible materials
Incompatible materials None known based on information supplied.
Hazardous decomposition products None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
Information on likely routes of exposure
Product Information
Inhalation Specific test data for the substance or mixture is not available.
Eye contact Specific test data for the substance or mixture is not available.
Skin contact Specific test data for the substance or mixture is not available.
Ingestion Specific test data for the substance or mixture is not available.
Symptoms related to the physical, chemical and toxicological characteristics
Symptoms No information available.
Numerical measures of toxicity
Acute toxicity
Component Information
Chemical name: Ascorbic acid
Oral LD₅₀: = 11900 mg/kg (Rat)
Dermal LD₅₀
Inhalation LC₅₀
Delayed and immediate effects as well as chronic effects from short and long-term exposure
Skin corrosion/irritation No information available.
Serious eye damage/eye irritation No information available.
Respiratory or skin sensitisation No information available.
Germ cell mutagenicity No information available.
Carcinogenicity No information available.
Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration hazard No information available.
11.2. Information on other hazards
11.2.1. Endocrine disrupting properties
Endocrine disrupting properties No information available.
11.2.2. Other information
Other adverse effects No information available.

12. ECOLOGICAL INFORMATION

12.1. Toxicity
Ecotoxicity The environmental impact of this product has not been fully investigated.
12.2. Persistence and degradability
Persistence and degradability No information available.
12.3. Bioaccumulative potential
Bioaccumulation There is no data for this product.
Component Information
Chemical name: Ascorbic acid
Partition coefficient: -1.64

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues/unused products

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. TRANSPORT INFORMATION

IATA

14.1 UN number or ID number Not regulated

14.2 UN proper shipping name Not regulated

14.3 Transport hazard class(es) Not regulated

14.4 Packing group Not regulated

14.5 Environmental hazards Not applicable

14.6 Special precautions for user

Special Provisions None

IMDG

14.1 UN number or ID number Not regulated

14.2 UN proper shipping name Not regulated

14.3 Transport hazard class(es) Not regulated

14.4 Packing group Not regulated

14.5 Marine pollutant Not applicable

14.6 Special precautions for user

Special Provisions None No information available

14.7 Maritime transport in bulk

according to IMO instruments

No information available

RID

14.1 UN number or ID number Not regulated

14.2 UN proper shipping name Not regulated

14.3 Transport hazard class(es) Not regulated

14.4 Packing group Not regulated

14.5 Environmental hazards Not applicable

14.6 Special precautions for user

Special Provisions None

ADR

14.1 UN number or ID number Not regulated

14.2 UN proper shipping name Not regulated

14.3 Transport hazard class(es) Not regulated

14.4 Packing group Not regulated

14.5 Environmental hazards Not applicable

14.6 Special precautions for user

Special Provisions None

15. REGULATORY INFORMATION

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

Water hazard class (WGK) non-hazardous to water (nwg)

Poland SDS created according to the following Polish regulation: Act of February 25, 2011

on chemical substances and their mixtures (Journal of Laws of 2018, item 143, as

amended). Regulation (EC) No 1907/2006 of the European Parliament and of the

Council on the Registration, Evaluation, Authorization and Restriction of Chemicals

(REACH), establishing the European Chemicals Agency (EC) as amended. Regulation

(EC) No 1272/2008 of the European Parliament and of the Council of 16 December

2008 on classification, labeling and packaging of substances and mixtures, as

amended. Regulation of the Minister of Health of 10 August 2012 on the criteria and method of classifying chemical

substances and their mixtures (Journal of Laws of

2012, item 1018). Regulation of the Minister of Health of 20 April 2012 on labeling

packaging of hazardous substances and mixtures and some mixtures (Journal of

Laws of 2012, item 445). Regulation of the Minister of Family, Labor and Social Policy

of 12 June 2018 on the maximum allowable concentrations and intensities of factors

harmful to health in the work environment (Journal of Laws of 2018, item 1286).

Announcement of the Minister of Economy, Labor and Social Policy of August 28,

2003 on the publication of the unified text of the Ordinance of the Minister of Labor

and Social Policy on general health and safety at work regulations (Journal of Laws

of 2003, No. 169, item 1650) . Regulation of the Minister of Health of 30 December 2004 on occupational safety and health related to the presence of chemical agents in the workplace (Journal of Laws of 2005, No. 11, item 86). Act of December 14, 2012 on waste (Journal of Laws of 2013, item 21) Regulation of the Minister of Health of December 30, 2004 on occupational health and safety related to the presence of chemical agents in the workplace (Journal U. of 2005, No. 11, item 86). Waste Act of December 14, 2012 (Journal of Laws of 2013, item 21). Act of 13 June 2013 on the management of packaging and packaging waste, Journal of Laws 2013, item 888). Government statement of September 24, 2002 - European Agreement on the International Carriage of Dangerous Goods by Road (ADR) (Journal of Laws No. 194, item 1629 and Journal of Laws of 2003, No. 207, item 2013 and 2014).
European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

This

product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

DIRECTIVE (EU) 2021/1187 on the marketing and use of explosives precursors

Not applicable

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

Plant protection products directive (91/414/EEC)

Chemical name: Ascorbic acid - 50-81-7

Plant protection products directive (91/414/EEC): Plant protection agent

EU - Biocidal Product Regulation ((EU) 528/2012)

International Inventories

TSCA Contact supplier for inventory compliance status

DSL/NDSL Contact supplier for inventory compliance status

EINECS/ELINCS Contact supplier for inventory compliance status

ENCS Contact supplier for inventory compliance status

IECSC Contact supplier for inventory compliance status

KECL Contact supplier for inventory compliance status

PICCS Contact supplier for inventory compliance status

AICS Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

Chemical Safety Report A Chemical Safety Assessment has been carried out for this substance

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. For lab use only!