

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 8.0 Revision Date 22.02.2021 Print Date 20.07.2022

GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

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

1.1 Product identifiers

Product name : (+)-Sodium L-ascorbate

Product Number : A4034 Brand : Sigma

REACH No. : A registration number is not available for this substance as the

substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

CAS-No. : 134-03-2

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Pte Ltd

(Co. Registration No. 199403788W)

2 Science Park Drive #05-01/12 Ascent Building

SINGAPORE 118222

**SINGAPORE** 

Telephone : +65 6890 6633 Fax : +65 6890 6639

E-mail address : TechnicalService@merckgroup.com

1.4 Emergency telephone

Emergency Phone # : 1-800-262-8200

## **SECTION 2: Hazards identification**

## 2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

## 2.2 Label elements

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

# 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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## **SECTION 3: Composition/information on ingredients**

## 3.1 Substances

Synonyms : L(+)-Ascorbic acidsodium salt

Vitamin Csodium salt

Formula :  $C_6H_7NaO_6$ Molecular weight : 198.11 g/mol CAS-No. : 134-03-2 EC-No. : 205-126-1

No components need to be disclosed according to the applicable regulations.

#### **SECTION 4: First aid measures**

## 4.1 Description of first-aid measures

#### If inhaled

After inhalation: fresh air.

## In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with

water/ shower.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

#### If swallowed

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

## **SECTION 5: Firefighting measures**

## 5.1 Extinguishing media

#### Suitable extinguishing media

Water Foam Carbon dioxide (CO2) Dry powder

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

## 5.2 Special hazards arising from the substance or mixture

Carbon oxides

Sodium oxides

Combustible.

Development of hazardous combustion gases or vapours possible in the event of fire.

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#### 5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

## 5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## **SECTION 6: Accidental release measures**

#### 6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

# 6.2 Environmental precautions

Do not let product enter drains.

## 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

## 6.4 Reference to other sections

For disposal see section 13.

# **SECTION 7: Handling and storage**

## 7.1 Precautions for safe handling

For precautions see section 2.2.

# 7.2 Conditions for safe storage, including any incompatibilities

## **Storage conditions**

Tightly closed. Dry.

Light sensitive.

#### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

#### **SECTION 8: Exposure controls/personal protection**

## 8.1 Control parameters

**Ingredients with workplace control parameters** 

# 8.2 Exposure controls

## **Personal protective equipment**

## **Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

#### Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other

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substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell,

Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm Break through time: 480 min

Material tested: KCL 741 Dermatril® L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell,

Internet: www.kcl.de).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm Break through time: 480 min

Material tested: KCL 741 Dermatril® L

## **Respiratory protection**

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P1

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

## **Control of environmental exposure**

Do not let product enter drains.

# **SECTION 9: Physical and chemical properties**

## 0.1 Information on basic physical and chemical properties

a) Appearance Form: powder

Color: light yellow

b) Odor odorless

c) Odor Threshold Not applicable

d) pH 7 - 8 at 100 g/l at 20 °C

e) Melting point/range: 220 °C

point/freezing point

f) Initial boiling point No data available and boiling range

g) Flash point No data availableh) Evaporation rate No data available

i) Flammability (solid, May form combustible dust concentrations in air.

gas)

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j) Upper/lower No data available flammability or

k) Vapor pressure No data availablel) Vapor density No data available

m) Relative density 1.88 at 19.7 °C - OECD Test Guideline 109

n) Water solubility 642.6 g/l at 20 °C - OECD Test Guideline 105- completely

soluble

o) Partition coefficient: log Pow: < -4.2 at 22 °C - Bioaccumulation is not expected.

n-octanol/water

explosive limits

p) Autoignition No data available

temperature

q) Decomposition 232 °C -

temperature

r) Viscosity Viscosity, kinematic: No data available

Viscosity, dynamic: No data available

s) Explosive properties No data availablet) Oxidizing properties No data available

9.2 Other safety information

Surface tension 74 mN/m at 20.3 °C

- OECD Test Guideline 115

## **SECTION 10: Stability and reactivity**

## 10.1 Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

## 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

## 10.3 Possibility of hazardous reactions

Violent reactions possible with:

Oxidizing agents

#### 10.4 Conditions to avoid

Light.

no information available

#### 10.5 Incompatible materials

No data available

# 10.6 Hazardous decomposition products

In the event of fire: see section 5

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## **SECTION 11: Toxicological information**

## 11.1 Information on toxicological effects

#### **Acute toxicity**

LD50 Oral - Rat - 11,900 mg/kg

Remarks:

(calculated on the free acid)

(RTECS)

#### Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h (OECD Test Guideline 404)

Remarks:

(in analogy to similar products)

The value is given in analogy to the following substances: ascorbic acid

## Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation (OECD Test Guideline 405)

Remarks:

(in analogy to similar products)

The value is given in analogy to the following substances: ascorbic acid

## Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: negative

(OECD Test Guideline 429)

# Germ cell mutagenicity

No data available

## Carcinogenicity

Carcinogenicity - No data available

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is

identified as probable, possible or confirmed human carcinogen by IARC.

#### **Reproductive toxicity**

No data available

# Specific target organ toxicity - single exposure

No data available

# Specific target organ toxicity - repeated exposure

No data available

## **Aspiration hazard**

#### 11.2 Additional Information

RTECS: CI7671000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

This substance is an essential part of the human diet.

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Handle in accordance with good industrial hygiene and safety practice.

## **SECTION 12: Ecological information**

## 12.1 Toxicity

Toxicity to fish static test LC50 - Oncorhynchus mykiss (rainbow trout) - > 1,020

mg/l - 96 h

(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic

semi-static test EC50 - Daphnia magna (Water flea) - 74 mg/l - 48 h

and other aquatic (OECD Test Guideline 202) invertebrates

Toxicity to algae

static test NOEC - Pseudokirchneriella subcapitata (green algae) - >

74 mg/l - 72 h

(OECD Test Guideline 201)

## 12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: > 99 % - Readily biodegradable.

(OECD Test Guideline 301A)

## 12.3 Bioaccumulative potential

No data available

## 12.4 Mobility in soil

No data available

#### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## 12.6 Other adverse effects

No data available

## **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

## **Product**

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

# **SECTION 14: Transport information**

## 14.1 UN number

ADR/RID: - IMDG: - IATA: -

# 14.2 UN proper shipping name

ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods

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14.3 Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

**14.4 Packaging group** 

ADR/RID: - IMDG: - IATA: -

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

## 14.6 Special precautions for user

#### **Further information**

Not classified as dangerous in the meaning of transport regulations.

# **SECTION 15: Regulatory information**

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

REACH - Restrictions on the manufacture, : Not applicable placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)

## **National legislation**

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

: Not applicable

#### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

## SECTION 16: Other information

#### **Further 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. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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