

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

1.1 Product identifier

Trade name : STAY-C® 50
Substance name : L-Ascorbic acid, 2-(dihydrogen phosphate), trisodium salt
CAS-No. : 66170-10-3

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

Use of the Substance/Mixture : Ingredient for personal care products, Additive for animal nutrition to be used in feed

1.3 Details of the supplier of the safety data sheet

Company : DSM Nutritional Products Ltd.
PO Box 2676
CH-4002 Basel
Telephone : +41618158888
E-mail address of person responsible for the SDS : sds.nutritionalproducts@dsm.com

1.4 Emergency telephone number

+41 848 00 11 77 (Carechem 24 International)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)
Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)
Not a hazardous substance or mixture.

2.3 Other hazards

None known.

SECTION 3: Composition/information on ingredients

Synonyms : sodium ascorbyl phosphate (INCI)
Brief description of the product : Substance
Molecular formula : C₆H₆O₉Na₃P • 2H₂O
ELINCS No. : 425-180-1

3.1 Substances

Hazardous components

Remarks : No hazardous ingredients

Further ingredients

| Chemical name | CAS-No. EC-No. Registration number | GHS Classification | Concentration [%] |
|---------------|--|--------------------|-------------------|
| | | | |

| | | | |
|---|---|--|----------------|
| L-Ascorbic acid, 2-(dihydrogen phosphate), trisodium salt | 66170-10-3 425-180-1 01-0000017158-68 | | >= 95 - <= 100 |
|---|---|--|----------------|

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : No hazards which require special first aid measures.
- If inhaled : Move to fresh air.
If symptoms persist, call a physician.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
- In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No specific symptoms known.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Water
Foam

5.2 Special hazards arising from the substance or mixture

- Specific hazards during fire-fighting : None known.

5.3 Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
- Further information : Consider dust explosion hazard.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Use personal protective equipment.
Avoid dust formation.

6.2 Environmental precautions

Try to prevent the material from entering drains or water courses.

6.3 Methods and material for containment and cleaning up

Sweep up and shovel.

6.4 Reference to other sections

For personal protection see section 8.
For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : For personal protection see section 8.
- Advice on protection against fire and explosion : Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed. Take precautionary measures against static discharges.
- Hygiene measures : General industrial hygiene practice.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : To maintain product quality, do not store in heat or direct sunlight.
Keep container tightly closed and dry.
- Advice on common storage : No special restrictions on storage with other products.

7.3 Specific end use(s)

- Specific use(s) : Not applicable

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Personal protective equipment

- Eye protection : Safety glasses
- Hand protection : Glove material: for example nitrile rubber
- Skin and body protection : Lightweight protective clothing
- Respiratory protection : No personal respiratory protective equipment normally required.
In case of high dust concentration use a dust mask applicable to local conditions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
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| Appearance | : powder |
| Colour | : white - off-white |
| Odour | : odourless |
| Odour Threshold | : No information available. |
| pH | : 9 - 10 (3%) (as aqueous solution) |
| Melting point/range | : > 200 °C Could not be determined due to decomposition. |
| Boiling point/boiling range | : not determined |
| Flash point | : Not applicable |
| Flammability (solid, gas) | : Not expected to form explosive dust-air mixtures. |
| Vapour pressure | : < 0.001 hPa (20 °C) < 0.001 hPa (130 °C) |
| Relative vapour density | : Not applicable |
| Density | : 1.94 g/cm ³ (at 20 °C) |
| Water solubility | : 789 g/l (20 °C; Tested according to Annex V of Directive 67/548/EEC.) |
| Partition coefficient: n-octanol/water | : log Pow < -4 (25 °C; Tested according to Annex V of Directive 67/548/EEC.) |
| Auto-ignition temperature | : 238 °C (1,013 hPa,) (Tested according to Annex V of Directive 67/548/EEC.) |
| Thermal decomposition | : Decomposes on heating. Potential for exothermic hazard |
| Explosive properties | : Not explosive |
| Oxidizing properties | : Not oxidizing |

9.2 Other information

| | |
|--|---|
| Combustibility index for deposited dust | : 1 (ca. 20 °C) |
| Dust explosion class | : The sample could not be ignited under test conditions (Hartmann tube). (Product sample) |
| Minimum ignition temperature of a dust/air mix | : >= 600 °C determined in the BAM oven |
| Molecular weight | : 358.08 g/mol |
| Bulk density | : 490 kg/m ³ |
| Impact sensitivity | : Not impact sensitive. |
| Surface tension | : 69.5 mN/m (1 g/l, 20 °C, Tested according to Annex V of Directive 67/548/EEC.) |

SECTION 10: Stability and reactivity

10.1 Reactivity

No hazards to be specially mentioned.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Dust may form explosive mixture in air.

10.4 Conditions to avoid

Heat

10.5 Incompatible materials

Strong acids and strong bases

Strong oxidizing agents

10.6 Hazardous decomposition products

No decomposition if used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

| | |
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| Acute oral toxicity | : LD50 (Rat): > 5,000 mg/kg (OECD Test Guideline 401) |
| Acute dermal toxicity | : LD50 (Rat): > 2,000 mg/kg (OECD Test Guideline 402) |
| Skin irritation | : No skin irritation (Rabbit, OECD Test Guideline 404) |
| Eye irritation | : No eye irritation (Rabbit, OECD Test Guideline 405) : Dust contact with the eyes can lead to mechanical irritation. |
| Sensitisation | : Did not cause sensitization. (Guinea pig, OECD Test Guideline 406) : no photoallergenic skin reaction (Guinea pig) Test performed using a similar product. |
| Genotoxicity in vitro | : not mutagenic (Various test systems) |
| Carcinogenicity | : No indication for carcinogenicity known. |
| Reproductive toxicity | : This information is not available. |
| Teratogenicity | : No indication for teratogenicity known. |
| STOT - single exposure (Acute exposure) | : The substance or mixture is not classified as specific target organ toxicant, single exposure. |

- STOT - repeated exposure : NOAEL (Oral, Rat) : 90 mg/kg bw/d
Subacute toxicity study (28 days)
(OECD Test Guideline 407)
- Aspiration toxicity : No aspiration toxicity classification

SECTION 12: Ecological information

12.1 Toxicity

- Toxicity to fish : Danio rerio (zebra fish)
LC50 (96 h) 5,856 mg/l
(nominal concentration)
(OECD Test Guideline 203)
- Toxicity to daphnia and other aquatic invertebrates : Daphnia magna (Water flea)
EC50 (48 h) > 100 mg/l
(nominal concentration)
(Directive 67/548/EEC, Annex V, C.2.)
- Toxicity to algae : ErC50 (72 h) > 100 mg/l
(nominal concentration)
(Directive 67/548/EEC, Annex V, C.3.)
: NOEC (72 h) 3.13 mg/l
(nominal concentration)
- Toxicity to bacteria : Pseudomonas putida
EC50 (16 h) 7,700 mg/l
(nominal concentration)

12.2 Persistence and degradability

- Biodegradability : Not readily biodegradable.
<= 30 % (28 d)
(OECD Test Guideline 301F)
: Well inherently biodegradable.
96 % (3 d)
- Stability in water : DT50: > 1,014 h (50 °C, pH 7)

12.3 Bioaccumulative potential

- Partition coefficient: n-octanol/water : log Pow < -4 (25 °C ; Tested according to Annex V of Directive 67/548/EEC.)

12.4 Mobility in soil

- Distribution among environmental compartments : No data available

Surface tension : 69.5 mN/m (1 g/l, 20 °C, Tested according to Annex V of Directive 67/548/EEC.)

12.5 Results of PBT and vPvB assessment

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

Additional ecological information : There is no data available for this product.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport information

14.1 UN number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



STAY-C® 50

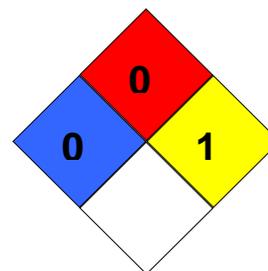
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NFPA Classification : Health hazard: 0
Fire Hazard: 0
Reactivity Hazard: 1



15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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