

## SAFETY DATA SHEET

### ASCORBIC ACID

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

<b>1.1 Product identifier:</b>	
<b>CAS Number:</b>	50-81-7
<b>EC number:</b>	200-066-2
<b>1.2 SYNONYMS:</b>	<ul style="list-style-type: none"><li>• Vitamin C</li><li>• L-ascorbic acid</li><li>• Ascorbate</li><li>• Cevitamic acid</li><li>• Antiscorbutic vitamin</li></ul>

#### SECTION 2: Hazards identification:

<b>2.1 Classification of the substance or mixture:</b>	Classification according to Regulation (EC) No 1272/2008 The substance is not classified according to the CLP regulation.
<b>2.2 Label elements:</b>	Labelling according to Regulation (EC) No 1272/2008 None
<b>Hazard Pictograms:</b>	
<b>Signal Word:</b>	Warning
<b>Hazard statements:</b>	<b>H319:</b> Causes serious eye irritation <b>H315:</b> Causes skin irritation
<b>Precautionary Statements:</b>	<b>P280:</b> Wear protective gloves/protective clothing/eye protection/face protection <b>P264:</b> Wash hands thoroughly after handling <b>P337 + P313:</b> If eye irritation persists: Get medical advice/attention. <b>P403 + P233:</b> Store in a well-ventilated place. Keep container tightly closed
<b>2.3 Other hazards:</b>	
<b>Inhalation:</b>	may cause respiratory irritation.
<b>Ingestion:</b>	may cause gastrointestinal

	discomfort, including nausea, diarrhea, and abdominal cramps.
<b>Skin Contact:</b>	may cause mild irritation.
<b>Eye contact:</b>	may cause mild irritation, redness, or discomfort.
<b>Chronic Exposure:</b>	Chronic exposure is unlikely to cause significant health issues, as it is water-soluble and excess amounts are typically excreted in urine; however, extremely high doses over long periods could potentially lead to kidney stones or gastrointestinal disturbances.
<b>Aggravation of pre-existing conditions:</b>	may aggravate pre-existing conditions such as kidney disorders, particularly in individuals with a history of kidney stones, as high doses can increase the risk of stone formation..

### SECTION 3: Composition/information on ingredients

<b>3.1 Chemical characterisation:</b>	Substances
<b>CAS No:</b>	Description: 50-81-7 ASCORBIC ACID
<b>Identification number(s):</b>	EC number: 200-066-2

### SECTION 4: First aid measures

<b>4.1 Description of first aid measures</b>	
<b>General information:</b>	
<b>After inhalation:</b>	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
<b>After skin contact:</b>	Remove contaminated clothing. Wash with soap and water. Consult a physician.
<b>After eye contact:</b>	Immediately flush eyes with plenty of water for at least 15 minutes. consult a physician.

<b>After swallowing:</b>	Rinse mouth with water. Immediately after ingestion. Never give anything by mouth to an unconscious person. If conscious, make victim drink water. Do not induce vomiting. Consult a physician.
<b>4.2 Most important symptoms and effects, both acute and delayed:</b>	The most important symptoms of acute exposure includes gastrointestinal discomfort, such as nausea and diarrhea, while delayed effects are generally rare, but prolonged high doses may lead to kidney stones or other renal issues.
<b>4.3 Indication of any immediate medical attention and special treatment needed:</b>	Treat symptomatically.

## SECTION 5: Firefighting measures

<b>5.1 Extinguishing media:</b>	Carbon dioxide. Water spray. Alcohol-resistant foam.
<b>5.2 Special hazards arising from the substance or mixture:</b>	No data available.
<b>5.3 Advice for firefighters:</b>	Wear fully protective suit, safety glasses and respiratory device. Cool tanks/drums with water spray/remove them into safety.
<b>5.4 further information:</b>	no data available

## SECTION 6: Accidental release measures

<b>6.1 Personal precautions, protective equipment and emergency procedures:</b>	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Avoid dust accumulation. Seek medical attention.
<b>6.2 Environmental precautions:</b>	Do not enter this chemical into drains.

<p><b>6.3 Methods and material for containment and cleaning up:</b></p>	<p>Take up spill into absorbent material, e.g.: sand, earth, vermiculite, powdered limestone. Scoop absorbed substance into closing containers. Spill must not return in its original container. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.</p>
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## SECTION 7: Handling and storage

<p><b>7.1 Precautions for safe handling:</b></p>	<p>For use in are with adequate ventilation. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material Do not use in confined spaces. Electrostatic discharge protection. Minimize dust generation and accumulation. Avoid ingestion and inhalation.</p>
<p><b>7.2 Conditions for safe storage, including any incompatibilities:</b></p>	<p>Store in original containers. Keep containers securely sealed Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Store in a dry and dark area.</p>
<p><b>Requirements to be met by storerooms and receptacles:</b></p>	<p>Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.</p>
<p><b>7.3 Specific end uses:</b></p>	<p>no data available</p>

## SECTION 8: Exposure controls/personal protection

<b>8.1 Control parameters</b>	
<b>Additional information about design of technical facilities:</b>	A system of local and general exhaust is recommended.
<b>8.2 Exposure controls</b>	
<b>Appropriate engineering controls</b>	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
<b>Personal protective equipment:</b>	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
<b>General protective and hygienic measures:</b>	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.
	<b>Respiratory protection:</b> Required.
<b>Protection of hands:</b>	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. Wash and dry hands.
	<b>Eye protection:</b> Required
<b>Protection of Body:</b>	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.

## SECTION 9: Physical and chemical properties

<b>9.1 Information on basic physical and chemical properties</b> <b>General Information</b>	
<b>Appearance: Form:</b>	Crystalline powder
<b>Colour:</b>	White to slight yellowish
<b>Odour:</b>	Odourless
<b>pH-value:</b>	2.1
<b>Melting point/Melting range:</b>	192°C
<b>Boiling point/Boiling range:</b>	250°C

<b>Flammability (solid, gaseous):</b>	Non flammable
<b>Ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	190°C
<b>Self-igniting:</b>	Not applicable
<b>Flash point:</b>	Not applicable
<b>Danger of explosion:</b>	Not applicable
<b>Explosion limits: Lower:</b>	Not applicable
<b>Explosion limits: Upper:</b>	Not applicable
<b>Vapour pressure:</b>	Not determined
<b>Density at 20 °C:</b>	1.65 g/cm <sup>3</sup>
<b>Relative density:</b>	1.65
<b>Vapour density:</b>	Not applicable
<b>Evaporation rate:</b>	Not applicable
<b>Solubility in / Miscibility with- water at 20 °C:</b>	Completely soluble in water.
<b>Partition coefficient:(n- octanol/water)</b>	-1.5
<b>Viscosity:</b>	Not applicable

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	No reaction under storage conditions.
<b>10.2 Chemical stability</b>	This chemical is stable under storage conditions.
<b>10.3 Possibility of hazardous reactions</b>	can react with strong oxidizing agents, releasing heat.
<b>10.4 Conditions to avoid</b>	Heat, light, air, moisture.
<b>10.5 Incompatible materials</b>	Strong oxidizing agents, bases, metals.
<b>10.6 Hazardous decomposition products</b>	carbon monoxide, carbon dioxide.

## SECTION 11: Toxicological information

<b>11.1 Information on toxicological effects</b>	
<b>Acute Toxicity:</b>	<b>LD50</b> (Oral, Rat): 11900 mg/kg <b>LD50</b> (Dermal, Rabbit): no data available <b>LC50</b> (Inhalation Rat): no data available
<b>Skin corrosion/Irritation:</b>	No data available.
<b>Serious eye damage/irritation:</b>	May cause eye irritation

<b>Respiratory damage/irritation:</b>	No data available.
<b>Ingestion:</b>	No data available.
<b>Germ cell mutagenicity:</b>	No data available.
<b>Carcinogenicity:</b>	No data available.
<b>Reproductive toxicity:</b>	No data available.
<b>Specific target organ toxicity - single exposure:</b>	No data available.
<b>Specific target organ toxicity - repeated exposure:</b>	No data available.
<b>Aspiration hazard:</b>	No data available.
<b>Signs and Symptoms of Exposure:</b>	Refer section 2.3
<b>11.2 Additional toxicological information</b>	
<b>Biodegradability:</b>	Readily biodegradable

## SECTION 12: Ecological information

<b>12.1 Toxicity Aquatic toxicity:</b>	LC50(fish): 1.020 mg/l (96hr) EC50(daphnia): 360 mg/l (48hr) EC50(algae): 1.750 mg/l (72hr) EC50 (Pseudomonas putida) 140 mg/l (16hr)
<b>12.2 Persistence and degradability:</b>	Readily biodegradable and highly persistent
<b>12.3 Bioaccumulative potential:</b>	low bioaccumulative
<b>12.4 Mobility in soil:</b>	High mobility
<b>12.5 Other adverse effects:</b>	No data available

## SECTION 13: Disposal considerations

<b>13.1 Waste treatment methods</b>	
<b>Uncleaned packaging Recommendation:</b>	dispose of in accordance with local hazardous waste regulations
<b>Recommended cleansing agents:</b>	Water, mild soap solutions, weak acid solutions.

## SECTION 14: Transport information

<b>14.1 UN-Number · ADR, ADN, IMDG, IATA:</b>	3085
<b>14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:</b>	ASCORBIC ACID
<b>14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :</b>	9

<b>14.4 Packing group · ADR, IMDG, IATA:</b>	3
<b>14.5 Environmental hazards:</b>	None.
<b>14.6 Special precautions for user:</b>	Handle responsibly.

## SECTION 15: Regulatory information

<b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU</b>	Directive 2012/18/EU, under that this substance is not classified in listed substance
<b>Named dangerous substances:</b>	This substance is not listed in the annex 1 to the directive.
<b>15.2 Chemical safety assessment:</b>	Chemical assessment has not been carried out.

## SECTION 16: Other information

The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.