


# SAFETY DATA SHEET

## SODIUM HYPOPHOSPHITE

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

<b>1.1 Product identifier:</b>	
<b>CAS Number:</b>	10039-56-2
<b>EC number:</b>	231-669-9
<b>1.2 SYNONYMS:</b>	<ul style="list-style-type: none"> <li>• Sodium hydrogen hypophosphite</li> <li>• Sodium phosphinate</li> <li>• Sodium hypophosphorous acid</li> <li>• Sodium dihydrogen hypophosphite</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 classified according to the CLP regulation.
<b>2.2 Label elements:</b>	Labelling according to Regulation (EC) No 1272/2008 Skin Irritation (Category 2) Eye Irritation (Category 2A) Acute Toxicity, Oral (Category 4) Acute Toxicity, Dermal (Category 4) Combustible (Category 2) Self-heating Substances (Category 2) Aquatic Acute Toxicity (Category 3)
<b>Hazard Pictograms:</b>	
<b>Signal Word:</b>	Danger
<b>Hazard statements:</b>	<b>H302:</b> Harmful if swallowed: Sodium hypophosphite can be toxic if ingested in significant quantities.

	<p><b>H315:</b> Causes skin irritation: Can cause irritation to the skin upon contact.</p> <p><b>H319:</b> Causes serious eye irritation: Can cause eye irritation, with potential for lasting discomfort.</p> <p><b>H332:</b> Harmful if inhaled: Inhalation of the substance or its dust may be harmful.</p> <p><b>H220:</b> Extremely flammable gas: Reacts with acids to release hydrogen gas, which is highly flammable and may pose a risk of fire or explosion.</p> <p><b>H241:</b> Heating may cause a fire or explosion: Can self-heat and contribute to combustion under certain conditions, especially in the presence of moisture or reactive materials.</p> <p><b>H413:</b> May cause long-lasting harmful effects to aquatic life: While not highly toxic, it could harm aquatic organisms if released into the environment in large quantities.</p>
<p><b>Precautionary Statements:</b></p>	<p><b>P202:</b> Do not handle until all safety precautions have been read and understood.</p> <p><b>P210:</b> Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.</p> <p><b>P233:</b> Keep container tightly closed.</p> <p><b>P240:</b> Ground and bond container and receiving equipment.</p> <p><b>P241:</b> Use explosion-proof electrical equipment.</p> <p><b>P261:</b> Avoid breathing dust/fume/gas/mist/vapors/spray.</p> <p><b>P264:</b> Wash hands thoroughly after handling.</p>

	<p><b>P280:</b> Wear protective gloves, protective clothing, and eye protection.</p> <p><b>P303 + P361 + P353:</b> IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.</p> <p><b>P304 + P340 + P310:</b> IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.</p> <p><b>P305 + P351 + P338:</b> IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p><b>P391:</b> Collect spillage.</p> <p><b>P405:</b> Store locked up.</p> <p><b>P501:</b> Dispose of contents/ container to an approved waste disposal plant.</p>
<b>2.3 Other hazards:</b>	
<b>Inhalation:</b>	can cause respiratory irritation and may be harmful if inhaled in significant amounts.
<b>Ingestion:</b>	can be harmful, potentially causing toxicity, gastrointestinal irritation, and other adverse health effects.
<b>Skin Contact:</b>	can cause irritation, leading to redness, itching, and potential chemical burns in severe cases.
<b>Eye contact:</b>	can cause serious irritation, leading to redness, pain, and potential damage to the eye tissues.
<b>Chronic Exposure:</b>	may lead to long-term health effects such as skin sensitivity, respiratory issues, or cumulative toxicity, though specific data on prolonged exposure is limited.

<b>Aggravation of pre-existing conditions:</b>	may aggravate pre-existing conditions such as respiratory disorders (e.g., asthma) or skin conditions (e.g., dermatitis) due to its irritating properties.
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### SECTION 3: Composition/information on ingredients

<b>3.1 Chemical characterisation:</b>	Substances
<b>CAS No:</b>	Description: 10039-56-2 SODIUM HYPOPHOSPHITE
<b>Identification number(s):</b>	EC number: 231-669-9

### 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 immediately. Wash with plenty of 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. If conscious, make victim drink two glasses at most immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult a physician.
<b>4.2 Most important symptoms and effects, both acute and delayed:</b>	Acute symptoms of Sodium Hypophosphite exposure may include skin and eye irritation, respiratory discomfort, and

	gastrointestinal issues, while delayed effects could involve prolonged skin sensitivity or respiratory problems with repeated exposure.
<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>	Phosphorus oxides, sodium oxides.
<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.
<b>6.3 Methods and material for containment and cleaning up:</b>	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.
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## SECTION 7: Handling and storage

<b>7.1 Precautions for safe handling:</b>	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.
<b>7.2 Conditions for safe storage, including any incompatibilities:</b>	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. Keep away fro moisture.
<b>Requirements to be met by storerooms and receptacles:</b>	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.
<b>7.3 Specific end uses:</b>	no data available

## 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
<b>Odour:</b>	Odourless
<b>pH-value:</b>	7
<b>Melting point/Melting range:</b>	130°C
<b>Boiling point/Boiling range:</b>	Not determined
<b>Flammability (solid, gaseous):</b>	Non-flammable
<b>Ignition temperature:</b>	No data available

<b>Decomposition temperature:</b>	170°C
<b>Self-igniting:</b>	None
<b>Flash point:</b>	Not determined
<b>Danger of explosion:</b>	Yes.
<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>	1.55 g/cm <sup>3</sup>
<b>Relative density:</b>	1.55
<b>Vapour density:</b>	Not applicable
<b>Evaporation rate:</b>	No data available
<b>Solubility in / Miscibility with- water at 20 °C:</b>	Highly Soluble
<b>Partition coefficient:(n- octanol/water)</b>	No data available
<b>Viscosity:</b>	Not applicable

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	Stable as a solid, but can react with acids to produce hydrogen gas.
<b>10.2 Chemical stability</b>	This chemical is stable under storage conditions.
<b>10.3 Possibility of hazardous reactions</b>	Can undergo hazardous reactions in contact with strong oxidizing agents, strong acids.
<b>10.4 Conditions to avoid</b>	Heat, moisture, open flames.
<b>10.5 Incompatible materials</b>	Strong oxidizers, strong acids, bases.
<b>10.6 Hazardous decomposition products</b>	Phosphine, Phosphorus oxides, Hydrogen gas.



## SECTION 11: Toxicological information

<b>11.1 Information on toxicological effects</b>	
<b>Acute Toxicity:</b>	<b>LD50</b> (Oral, Rat): 7.640 mg/kg <b>LD50</b> (Dermal, Rabbit): no data available <b>LC50</b> (Inhalation Rat): no data available
<b>Skin corrosion/Irritation:</b>	Causes serious skin irritation
<b>Serious eye damage/irritation:</b>	Causes serious 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</b> <b>Aquatic toxicity:</b>	LC50(fish): no data available EC50(daphnia): no data available ErC50(algae):no data available
<b>12.2 Persistence and degradability:</b>	Readily Biodegradable
<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

13.1 Waste treatment methods	
<b>Uncleaned packaging Recommendation:</b>	dispose of in accordance with local hazardous waste regulations
<b>Recommended cleansing agents:</b>	Water, mild detergents, sand, diluted acids.

## SECTION 14: Transport information

<b>14.1 UN-Number · ADR, ADN, IMDG, IATA:</b>	3375
<b>14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:</b>	SODIUM HYPOPHOSPHITE
<b>14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :</b>	4.3
<b>14.4 Packing group · ADR, IMDG, IATA:</b>	3
<b>14.5 Environmental hazards:</b>	Yes, harmful for aquatic life.
<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 classified in listed substance as flammable substances.
<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 limitations of our knowledge, this document is only for reference. Users should make their

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