

SAFETY DATA SHEET

SODIUM PERBORATE TETRAHYDRATE

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

1.1 Product identifier:	
CAS Number:	10486-00-7
EC number:	239-172-9
1.2 SYNONYMS:	- Sodium tetraborate perhydrate - Sodium perborate (tetrahydrate) - Perboric acid sodium salt tetrahydrate - Sodium perborate (NaBO₃·4H₂O) - Sodium perborate tetrahydrate - Sodium borate perhydrate

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
2.2 Label elements:	Labelling according to Regulation (EC) No 1272/2008 Acute toxicity (category 4) Serious Eye Damage/Eye Irritation (Category 1) Eye damage/irritation (Category 1) Reproductive Toxicity (Category 1) Specific target organ toxicity (single exposure) (Category 3)
Hazard Pictograms:	
Signal Word:	Danger
Hazard statements:	H302: Harmful if swallowed. H318: Causes serious eye damage. H332: Harmful if inhaled.

	H335: May cause respiratory irritation. H360: May damage fertility or unborn child
Precautionary Statements:	P210: Keep away from heat/sparks/open flames/hot surfaces. — No smoking. P220: Keep/Store away from clothing and other combustible materials. P221: Take any precaution to avoid mixing with combustibles. P261: Avoid breathing dust/fume/gas/mist/vapors/spray. P280: Wear protective gloves/protective clothing/eye protection/face protection. P302+P352: IF ON SKIN: Wash with plenty of water and soap. P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER or doctor. P332+P313: If skin irritation occurs: Get medical advice/attention. P337+P313: If eye irritation persists: Get medical advice/attention. P403+P233: Store in a well-ventilated place. Keep container tightly closed. P405: Store locked up. P501: Dispose of contents/container in accordance with local/regional/national/international regulations. P406: Store in a corrosion-resistant container with a resistant lining.

2.3 Other hazards:	
Inhalation:	may cause respiratory irritation, coughing, or shortness of breath.
Ingestion:	may cause gastrointestinal irritation, nausea, vomiting, abdominal pain,
Skin Contact:	may cause irritation, redness. Itching and discomfort.
Eye contact:	can cause severe irritation, redness, pain, and potential eye damage.
Chronic Exposure:	can lead to persistent skin irritation or sensitization, causing conditions like dermatitis or increased skin sensitivity.
Aggravation of pre-existing conditions:	may aggravate pre-existing respiratory conditions such as asthma or bronchitis.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:	Substances
CAS No:	Description: 10486-00-7 SODIUM PERBORATE TETRAHYDRATE (95%) 10555-76-7 SODIUM METABORATE TETRAHYDRATE (1-3%) 7732-18-5 WATER (0-2%)
Identification number(s):	EC number: 239-172-9 SODIUM PERBORATE TETRAHYDRATE 231-891-6 SODIUM METABORATE TETRAHYDRATE 231-792-2 WATER

SECTION 4: First aid measures

4.1 Description of first aid measures	
General information:	
After inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician

After skin contact:	Remove contaminated clothing. Wash with soap and water. Consult a physician.
After eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes. Consult a physician.
After swallowing:	Rinse mouth with water. Immediately after ingestion. Do not induce vomiting. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed:	skin, eye, and respiratory irritation, with potential for gastrointestinal discomfort if ingested, and delayed effects such as chronic skin irritation, respiratory issues, or eye damage from prolonged or repeated exposure.
4.3 Indication of any immediate medical attention and special treatment needed:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media:	Carbon dioxide. Water spray. Alcohol-resistant foam. Dry chemical.
5.2 Special hazards arising from the substance or mixture:	Contact with combustibles such as wood, paper, oil or finely divided metal may produce spontaneous combustion or violent decomposition.
5.3 Advice for firefighters:	Wear fully protective suit, safety glasses and respiratory device. Cool tanks/drums with water spray/remove them into safety.
5.4 further information:	no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	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.
6.2 Environmental precautions:	Do not enter this chemical into drains.
6.3 Methods and material for containment and cleaning up:	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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:	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.
7.2 Conditions for safe storage, including any incompatibilities:	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.
Requirements to be met by storerooms and receptacles:	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.
7.3 Specific end uses:	no data available

SECTION 8: Exposure controls/personal protection

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	
General Information	
Appearance: Form:	Free flowing granules.
Colour:	White
Odour:	Odourless
pH-value:	9
Melting point/Melting range:	150-160°C
Boiling point/Boiling range:	No data available
Flammability (solid, gaseous):	Non- Flammable
Ignition temperature:	200°C
Decomposition temperature:	150°C
Self-igniting:	Not applicable
Flash point:	Not applicable
Danger of explosion:	Not applicable
Explosion limits: Lower:	Not applicable
Explosion limits: Upper:	Not applicable
Vapour pressure:	No data available
Density at 20 °C:	1.7 g/cm ³ .
Relative density:	1.7
Vapour density:	Not applicable
Evaporation rate:	No data available
Solubility in / Miscibility with- water at 20 °C:	Highly soluble
Partition coefficient:(n- octanol/water)	Not applicable
Viscosity:	Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity	No data available
10.2 Chemical stability	This chemical is stable under storage conditions.
10.3 Possibility of hazardous reactions	Contact with alkali metals causes a reaction and release hydrogen.
10.4 Conditions to avoid	Avoid reactions with alkalis.
10.5 Incompatible materials	Alkali, sodium, calcium, and other active metal, halogen, metal oxide, nonmetal oxide, acyl halide and metal phosphide.

10.6 Hazardous decomposition products	No data available
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SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute Toxicity:	LD50 (Oral, Rat) : 1200 mg/kg LD50 (Dermal, Rabbit) : no data available LC50 (Inhalation Rat) : 1.6 mg/l
Skin corrosion/Irritation:	No data available
Serious eye damage/irritation:	Cause serious eye damage
Respiratory damage/irritation:	can cause respiratory irritation
Ingestion:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	May cause damage to unborn child
Specific target organ toxicity - single exposure:	No data available
Specific target organ toxicity - repeated exposure:	No data available
Aspiration hazard:	No data available
Signs and Symptoms of Exposure:	Refer section 2.3
11.2 Additional toxicological information	
Biodegradability:	Moderately biodegradable.

SECTION 12: Ecological information

12.1 Toxicity Aquatic toxicity:	No data available
12.2 Persistence and degradability:	moderately biodegradable.
12.3 Bioaccumulative potential:	Not bioaccumulate
12.4 Mobility in soil:	High mobility
12.5 Other adverse effects:	Harmful to aquatic life.

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Uncleaned packaging Recommendation:	dispose of in accordance with local hazardous waste regulations
Recommended cleansing agents:	biodegradable detergents, hydrogen peroxide, citric acid, isopropyl alcohol, and sodium bicarbonate

SECTION 14: Transport information

14.1 UN-Number · ADR, ADN, IMDG, IATA:	UN 1479
14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:	SODIUM PERBORATE TETRAHYDRATE
14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :	5.1
14.4 Packing group · ADR, IMDG, IATA:	3
14.5 Environmental hazards:	Harmful for aquatic life.
14.6 Special precautions for user:	Handle responsibly.

SECTION 15: Regulatory information

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

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