



SAFETY DATA SHEET

BORON PHOSPHIDE

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

1.1 Product identifier:	
CAS Number:	20205-91-8
EC number:	234-542-6
1.2 SYNONYMS:	<ul style="list-style-type: none"> • Boron(III) phosphide • Boron phosphate • BP (abbreviation)

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 Reactivity with water (Category 3) Skin irritation (Category 2) Eye irritation (Category 2A) Specific target organ toxicity, single exposure (Category 3)
Hazard Pictograms:	 
Signal Word:	Danger
Hazard statements:	H261: In contact with water releases flammable gas. H315: Causes skin irritation. H319: Causes serious eye irritation. H335: May cause respiratory irritation.
Precautionary Statements:	P260: Do not breathe dust/fume/gas/mist/vapors/spray. P261: Avoid breathing dust/fume/gas/mist/vapors/spray.

	<p>P264: Wash hands thoroughly after handling.</p> <p>P270: Do not eat, drink, or smoke when using this product.</p> <p>P271: Use only outdoors or in a well-ventilated area.</p> <p>P280: Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.</p> <p>P302+P352: IF ON SKIN: Wash with plenty of soap and water.</p> <p>P312: Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>P333+P313: If skin irritation or rash occurs: Get medical advice/attention.</p> <p>P330: Rinse mouth.</p> <p>P273: Avoid release to the environment.</p> <p>P391: Collect spillage.</p> <p>P405: Store locked up.</p> <p>P501: Dispose of contents/container to hazardous or special waste collection point.</p>
2.3 Other hazards:	
Inhalation:	<p>may cause respiratory irritation, coughing, and difficulty breathing, potentially leading to more severe respiratory conditions with prolonged exposure.</p>

Ingestion:	may cause gastrointestinal irritation, nausea, vomiting, and potentially more severe toxic effects depending on the amount consumed.
Skin Contact:	may cause irritation, redness, and discomfort, with prolonged exposure potentially leading to more severe skin reactions.
Eye contact:	may cause irritation, redness, and watering, and could potentially lead to more serious damage with prolonged exposure.
Chronic Exposure:	may lead to respiratory issues, skin sensitization, or long-term damage to the lungs and other organs, especially with prolonged inhalation or skin contact..
Aggravation of pre-existing conditions:	may aggravate pre-existing respiratory conditions, such as asthma or chronic bronchitis, as well as skin conditions like dermatitis or allergies.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:	Substances
CAS No:	Description: 20205-91-8 BORON PHOSPHIDE
Identification number(s):	EC number: 234-542-6

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. Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed:	The most important symptoms of acute exposure include respiratory irritation, skin and eye irritation, nausea, and vomiting, with delayed effects potentially involving chronic respiratory issues or skin sensitization.
4.3 Indication of any immediate medical attention and special treatment needed:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media:	Carbon dioxide. Alcohol-resistant foam. Avoid using water.
5.2 Special hazards arising from the substance or mixture:	Boron oxide, phosphorus oxide.
5.3 Advice for firefighters:	Wear fully protective suit, safety glasses and respiratory device. 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. 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. Store in a dry and dark area. Do not handle in flammable atmospheres.
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.
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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	
General Information	
Appearance: Form:	Crystalline or powder
Colour:	White
Odour:	Odourless
pH-value:	Not applicable
Melting point/Melting range:	2000°C
Boiling point/Boiling range:	2500°C
Flammability (solid, gaseous):	Non- flammable
Ignition temperature:	No data available
Decomposition temperature:	No data available
Self-igniting:	None
Flash point:	Not applicable
Danger of explosion:	None
Explosion limits: Lower:	Not applicable
Explosion limits: Upper:	Not applicable
Vapour pressure:	Not determined
Density at 20 °C:	2.37 g/cm ³
Relative density:	2.37
Vapour density:	Not applicable
Evaporation rate:	Not applicable
Solubility in / Miscibility with- water at 20 °C:	InSoluble
Partition coefficient:(n- octanol/water)	Not determined
Viscosity:	Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity	Stable at storage conditions.
10.2 Chemical stability	This chemical is stable under storage conditions.

10.3 Possibility of hazardous reactions	may react violently with strong oxidizing agents, releasing toxic gases or heat.
10.4 Conditions to avoid	high temperatures, moisture, open flames, inadequate ventilation.
10.5 Incompatible materials	Strong oxidizing agents, acids, water.
10.6 Hazardous decomposition products	Phosphorus Oxides, phosphine.

SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute Toxicity:	LD50 (Oral, Rat): no data available LD50 (Dermal, Rabbit): no data available LC50 (Inhalation Rat): no data available
Skin corrosion/Irritation:	may cause mild to moderate skin irritation
Serious eye damage/irritation:	Can cause irritation
Respiratory damage/irritation:	can lead to respiratory irritation
Ingestion:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	No data available
Specific target organ toxicity - single exposure:	May cause respiratory irritation.
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:	Not Biodegradable

SECTION 12: Ecological information

12.1 Toxicity Aquatic toxicity:	LC50(fish): no data available EC50(daphnia): no data available ErC50(algae): no data available
12.2 Persistence and degradability:	Not Biodegradable
12.3 Bioaccumulative potential:	Not bioaccumulative
12.4 Mobility in soil:	Low mobility
12.5 Other adverse effects:	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Uncleaned packaging Recommendation:	dispose of in accordance with local hazardous waste regulations
Recommended cleansing agents:	Ethanol Avoid using water, strong acids or oxidizing agents.

SECTION 14: Transport information

14.1 UN-Number · ADR, ADN, IMDG, IATA:	1364
14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:	PHOSPHOROUS, SOLID
14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :	4.3
14.4 Packing group · ADR, IMDG, IATA:	2
14.5 Environmental hazards:	Yes, very harmful to 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
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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 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.