Otto Chemie Pvt Ltd An ISO 9001 : 2015 & GMP Certified Company Office : No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road, Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)

Tel: + 91 98200 41841 Email: info@ottokemi.com Web: www.ottokemi.com

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Product identifiers

Product Name Boron amorphous, 98% Product Code : B 1961 CAS No: 7440-42-8

1.2. Relevant identified uses of the substance or mixture and uses advised against Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet Company identification OTTO CHEMIE PVT LTD No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road, Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)

1.4. Emergency telephone number Phone no. : + 91 98200 41841 (10 : 00 am - 06 : 00 pm)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Acute toxicity, (Category 4) Long-term (chronic) aquatic

hazard, (Category 3) 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 Pictogram Signal Word Hazard Statements H302 H412 Precautionary Statements P264 P270 P273 P301 + P312

P501

plant. Supplemental Hazard none Statements Reduced Labeling (<= 125 ml) Pictogram Signal Word Warning Hazard Statements H412 **Precautionary Statements** none Supplemental Hazard none\ Statements 2.3 Other hazards 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. Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

The substance/mixture does not contain components considered to have endocrine

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H302: Harmful if swallowed. H412: Harmful to aquatic life with long lasting effects.

Warning

Harmful if swallowed. Harmful to aquatic life with long lasting effects.

Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Dispose of contents/ container to an approved waste disposal

Harmful to aquatic life with long lasting effects.

Toxicological information:

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disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances	
Formula	В
Molecular weight	: 10,81 g/mol
CAS-No.	: 7440-42-8
EC-No.	: 231-151-2

Component		Classification	Concentration
boron			
CAS-No	7440-42-8	Acute Tox. 4; Aquatic Chronic 3;	<= 100 %
EC-No	231-151-2	H302, H412	

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures General advice Show this material safety data sheet to the doctor in attendance. If inhaled After inhalation: fresh air. In case of skin contact In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. In case of eye contact After eye contact: rinse out with plenty of water. Remove contact lenses. If swallowed After swallowing: immediately make victim drink water (two glasses at most). Consult a physician. 4.2 Most important symptoms and effects, both acute and delayed The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11 4.3 Indication of any immediate medical attention and special treatment needed No data available **SECTION 5: Firefighting measures** 5.1 Extinguishing media Suitable extinguishing media Sand Special powder against metal fire Cement Unsuitable extinguishing media Foam Water 5.2 Special hazards arising from the substance or mixture Borane/boron oxides Magnesium oxide Combustible. Development of hazardous combustion gases or vapours possible in the event of fire. 5.3 Advice for firefighters In the event of fire, wear self-contained breathing apparatus. 5.4 Further information none

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8. 6.2 Environmental precautions No special precautionary measures necessary. 6.3 Methods and materials for containment and cleaning up Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts. 6.4 Reference to other sections For disposal see section 13. **SECTION 7: Handling and storage** 7.1 Precautions for safe handling For precautions see section 2.2. 7.2 Conditions for safe storage, including any incompatibilities Storage conditions Tightly closed. Dry. Recommended storage temperature see product label. Storage class Storage class (TRGS 510): 11: Combustible Solids 7.3 Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated SECTION 8: Exposure controls/personal protection 8.1 Control parameters Ingredients with workplace control parameters 8.2 Exposure controls Personal protective equipment Eye/face protection Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses Skin protection This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L **Body Protection** protective clothing Respiratory protection required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to

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the used respiratory protection system. Recommended Filter type: Filter type P2 The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented. Control of environmental exposure No special precautionary measures necessary. **SECTION 9: Physical and chemical properties** 9.1 Information on basic physical and chemical properties a) Physical state solid b) Color dark brown c) Odor No data available d) Melting No data available point/freezing point e) Initial boiling point ca.2.550 °C and boiling range f) Flammability (solid, No data available gas) g) Úpper/lower No data available flammability or explosive limits h) Flash point Not applicable i) Autoignition No data available temperature j) Decomposition No data available temperature k) pH No data available I) Viscosity Viscosity, kinematic: No data available Viscosity, dynamic: No data available 0,00016 g/l at 20 °C - OECD Test Guideline 105 m) Water solubility n) Partition coefficient: Not applicable for inorganic substances n-octanol/water o) Vapor pressure No data available p) Density 2,350 g/cm3 Relative density No data available q) Relative vapor No data available density r) Particle No data available characteristics s) Explosive properties No data available t) Oxidizing properties none 9.2 Other safety information Bulk density 200 - 300 kg/m3 Particle size ca.2 µm - Particle size **SECTION 10: Stability and reactivity** 10.1 Reactivity The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed. 10.2 Chemical stability The product is chemically stable under standard ambient conditions (room temperature). 10.3 Possibility of hazardous reactions Exothermic reaction with: Risk of ignition or formation of inflammable gases or vapours with: Ammonia metallic oxides halogens halogen-halogen compounds halogen oxides

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nitrogen oxides nitrates nitrites nitrosyl compounds nitryl compounds Oxidizing agents Nitric acid sulfur Water potassium dichromate Risk of explosion with: metallic oxides peroxi compounds silver compounds 10.4 Conditions to avoid no information available 10.5 Incompatible materials No data available 10.6 Hazardous decomposition products In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals: Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg Inhalation LC50 Rat: > 50mg/L. Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant). Special Remarks on Toxicity to Animals: Not available. Special Remarks on other Toxic Effects on Humans: Not available. Special Remarks on other Toxic Effects on Humans: Not available. SECTION 12: Ecological information 12.1 Toxicity

Toxicity to fish static test LC50 - Pimephales promelas (fathead minnow) - 79,7 mg/l - 96 h (boron) (OPPTS 850.1075) Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata (green algae) -52,4 mg/l - 72 h (boron) (OECD Test Guideline 201) 12.2 Persistence and degradability The methods for determining biodegradability are not applicable to inorganic substances. 12.3 Bioaccumulative potential No data available 12.4 Mobility in soil No data available 12.5 Results of PBT and vPvB 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 Endocrine disrupting properties Product: The substance/mixture does not contain components Assessment : considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission

12.7 Other adverse effects

No ecological problems are to be expected when the product is handled and used with due care and attention.

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Regulation (EU) 2018/605 at levels of 0.1% or higher.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods No data available

SECTION 14: Transport information

14.1 UN number			
ADR/RID: -	IMDG: -	IATA: -	
14.2 UN proper shipping name	e		
ADR/RID:	Not dangerous goods		
IMDG:	Not dangerous goods		
IATA:	Not dangerous goods		
14.3 Transport hazard class(e			
ADR/RID: -	IMDG: -	IATA: -	
14.4 Packaging group			
ADR/RID: -	IMDG: -	IATA: -	
14.5 Environmental hazards			
ADR/RID: no	IMDG Marine pollutant: no	IATA: no	
14.6 Special precautions for u	ser		
No data available			
Further information			
Not classified as dangerous in	the meaning of transport regulations.		
SECTION 15: Regulatory inf	armation		
	nmental regulations/legislation specific	for the	
substance or mixture	innental regulations/legislation specific		
	t complies with the requirements of Req	nulation (EC) No	
1907/2006.	to complies with the requirements of requ		
Other regulations			
	arding maternity p <mark>rot</mark> ection in accordanc	ce to Dir 92/85/EEC or	
stricter national regulations wh			
	the protection of young people at work.		
15.2 Chemical Safety Assess			

For this product a chemical safety assessment was not carried out

SECTION 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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