

# SAFETY DATA SHEET



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

### 1.1 Product identifier

**Product name** : *Liquibor*<sup>®</sup>  
**Chemical name** : Reaction products of monoethanolamine and boric acid (1:3)  
**EC number** : Not available.  
**REACH Registration number**

Registration number	Legal entity
01-2119557854-26-0002	Borax Français S.A.S.

**CAS number** : 10377-81-8  
**Product type** : Liquid.  
**Other means of identification** : 2-aminoethanol, monoester with boric acid  
701-024-0: List number allocated by ECHA, related to the Chemical name. It has no legal significance.

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Material uses** : Refer to the table "Identified uses" below.

Identified uses
Importing and packaging Adhesives (Process regulator (other than polymerisation or vulcanization processes)) Agriculture (Fertilisers) Industrial fluids (Corrosion inhibitors and anti-scaling agents, Lubricants and lubricant additives) <i>A complete list of uses is provided in the introduction to Annex - Exposure Scenarios</i>

#### Uses advised against

Not applicable.

### 1.3 Details of the supplier of the safety data sheet

#### Borax Europe Limited

6 St. James's Square  
London, SW1Y 4AD  
United Kingdom  
T: +44 (0)20 7781 2000

#### Borax Français S.A.S.

Usine/Siège Social  
Route de Bourbourg  
59411 Coudekerque-Branche  
Cedex, France  
T: +33 3 28 29 28 30

#### Rio Tinto Iron & Titanium GmbH

Alfred-Herrhausen-Allee 3-5,  
65760 Eschborn  
Germany  
T: +49 6196 96000

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

e-mail address of person responsible for this SDS : rtb.sds@riotinto.com

### 1.4 Emergency telephone number

Telephone number : +44 (0) 1235 239 670 (Rio Tinto Borates)  
For advice on chemical emergencies, spillages, fires or First Aid.

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Product definition : UVCB

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.  
See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

#### Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Hazardous ingredients : Reaction products of monoethanolamine and boric acid (1:3)

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

#### Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

### 2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII :

PBT	P	B	T	vPvB	vP	vB
No	N/A	N/A	No	N/A	N/A	N/A

Other hazards which do not result in classification : None known.

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances : UVCB

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Reaction products of monoethanolamine and boric acid (1:3)	REACH #: 01-2119557854-26 CAS: 10377-81-8	>99	Not classified.  <b>See Section 16 for the full text of the H statements declared above.</b>	-	[1]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

#### Type

[\*] Substance

[1] Constituent

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- Eye contact** : Use eye wash fountain or fresh water to cleanse the eye. If irritation persists for more than 30 minutes, seek medical attention.
- Inhalation** : If symptoms such as nose or throat irritation are observed, remove to fresh air.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and wash it before reuse.
- Ingestion** : Wash out mouth thoroughly with water and give plenty of water to drink. Seek medical attention
- Protection of first-aiders** : No special protective clothing is required

### 4.2 Most important symptoms and effects, both acute and delayed

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Symptoms of accidental over-exposure to high doses of inorganic borate salts have been associated with ingestion or absorption through large areas of severely damaged skin. These may include nausea, vomiting, and diarrhoea, with delayed effects of skin redness and peeling.
- Ingestion** : Symptoms of accidental over-exposure to high doses of inorganic borate salts have been associated with ingestion or absorption through large areas of severely damaged skin. These may include nausea, vomiting, and diarrhoea, with delayed effects of skin redness and peeling.

### 4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Supportive care only is required for adult ingestion of less than a few grams of the product. For ingestion of larger amounts, maintain fluid and electrolyte balance and maintain adequate kidney function. Gastric lavage is only recommended for heavily exposed, symptomatic patients in whom emesis has not emptied the stomach. Hemodialysis should be reserved for patients with massive acute absorption, especially for patients with compromised renal function. Boron analyses of urine or blood are only useful for verifying exposure and are not useful for evaluating severity of poisoning or as a guide in treatment.
- Specific treatments** : No specific treatment.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

### 5.2 Special hazards arising from the substance or mixture

**Hazards from the substance or mixture** : None. The product is not flammable, combustible or explosive. May evolve toxic fumes in a fire.

**Hazardous combustion products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide

### 5.3 Advice for firefighters

**Special protective actions for fire-fighters** : None.

**Special protective equipment for fire-fighters** : Not applicable.

**Additional information** : Not explosive.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

: Large amounts of this product can be harmful to plants and other species. Therefore, releases to the environment should be minimized. Avoid contamination of water bodies during clean up and disposal. Advise local water authority that none of the affected water should be used for irrigation or for the abstraction of potable water until natural dilution returns the boron value to its normal environmental background level .

### 6.3 Methods and material for containment and cleaning up

**Small spill** : Soak up with inert absorbent material, transfer to container and arrange removal by disposal company.

**Large spill** : Liquids should be contained with sand or earth and both liquid and solid transferred to salvage containers. Avoid contamination of water bodies during clean up and disposal.

### 6.4 Reference to other sections

: See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

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## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

- Protective measures** : Handle in accordance with good industrial hygiene and safety practice. Avoid spills.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### 7.2 Conditions for safe storage, including any incompatibilities

No special handling precautions are required, but dry, indoor storage is recommended. Store in a dry, cool and well-ventilated area. Cover to minimise evaporation.

Storage temperature: Ambient temperature

Storage pressure: Ambient pressure

### 7.3 Specific end use(s)

**Recommendations** : Not available.

**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 8.1 Control parameters

#### Occupational exposure limits

No exposure limit value known.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Reaction products of monoethanolamine and boric acid (1:3)	DNEL	Long term Oral	1.7 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	1.4 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	DNEL	Long term Dermal	94.6 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	5.9 mg/m <sup>3</sup>	Workers	Systemic

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## SECTION 8: Exposure controls/personal protection

	DNEL	Long term Dermal	189.2 mg/kg bw/day	Workers	Systemic
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### PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
Reaction products of monoethanolamine and boric acid (1:3)	Fresh water	0.026 mg/l	-
	Marine water	0.0026 mg/l	-
	Water - intermittent	0.26 mg/l	-
	Soil	0.014 mg/kg dwt	-
	Fresh water sediment	0.054 mg/kg dwt	-
	Marine water sediment	0.0054 mg/kg dwt	-
	Sewage Treatment Plant	10 mg/l	-

## 8.2 Exposure controls

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Recommended: Eye protection according to CEN166:2001 is recommended.

### Skin protection

**Hand protection** : Gloves (nitrile or neoprene) (CEN374:2016).

**Body protection** : No special protective clothing is required.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: Self-contained breathing apparatus when vapour levels approach or exceed permitted exposure levels (CEN 140:1998).

**Environmental exposure controls** : Limiting releases from site:

Water Emissions: Storage should be sheltered from precipitation. Avoid spillage into water and cover drains. Removal from water can only be accomplished by very specific treatment technologies including ion exchange resins, reverse osmosis etc. Removal efficiency is dependent upon a number of factors and will vary from 40 to 90%. Much of the technology is currently not appropriate to high volume or mixed waste streams. Boron is not removed in considerable amounts in conventional STP. If sites discharge to a municipal STP the concentration of boron should not exceed the PNEC in the municipal STP

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## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	: Liquid. [Slight Viscous liquid.]
<b>Colour</b>	: Pale colour. Yellow.
<b>Odour</b>	: Ammoniacal. [Slight]
<b>Odour threshold</b>	: Not available.
<b>Melting point/freezing point</b>	: Not applicable.
<b>Initial boiling point and boiling range</b>	: Not applicable.
<b>Flammability</b>	: Non-flammable. The product is not flammable, combustible or explosive.
<b>Lower and upper explosion limit</b>	: Not available.
<b>Flash point</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not applicable. [Not self-heating.]
<b>Decomposition temperature</b>	: Not available.
<b>pH</b>	: 8.88 [Conc. (% w/w): 5%] ; 9.05 (1.0% solution)
<b>Viscosity</b>	: Kinematic: 15 mm <sup>2</sup> /s
<b>Solubility(ies)</b>	: Not available.
<b>Solubility in water</b>	: Not available.
<b>Partition coefficient: n-octanol/water</b>	: Not applicable.
<b>Vapour pressure</b>	: Not available.
<b>Relative density</b>	: 1.34
<b>Bulk density</b>	: Not available.
<b>Granulometry</b>	: Not available.
<b>Vapour density</b>	: Not available.
<b>Explosive properties</b>	: Not explosive.
<b>Oxidising properties</b>	: Not oxidising.
<b><u>Particle characteristics</u></b>	
<b>Median particle size</b>	: Not applicable.

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	: Possible release of carbon monoxide/carbon dioxide.
<b>10.2 Chemical stability</b>	: Under ambient temperatures, the product is stable. The product may concentrate by evaporation.
<b>10.3 Possibility of hazardous reactions</b>	: None known.
<b>10.4 Conditions to avoid</b>	: Elevated temperature
<b>10.5 Incompatible materials</b>	: The product may be incompatible with aluminium, galvanised iron, copper and its alloys, oxidising agents, acids, alkalis, acid chlorides and acid anhydrides.

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## SECTION 10: Stability and reactivity

**10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced. May evolve toxic fumes in a fire.

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Product/ingredient name	Result type	Species	Dose	Exposure
Reaction products of monoethanolamine and boric acid (1:3)	LD50 Oral	Rat	>2000 mg/kg body weight	-

**Conclusion/Summary** : Based on the available data, the classification criteria are not met.

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Reaction products of monoethanolamine and boric acid (1:3)	Eyes - No irritation.	New Zealand White Rabbit	-	0.1 ml	-
	Skin - No irritation.	New Zealand White Rabbit	-	0.5 ml	-

#### Conclusion/Summary

**Skin** : Non-irritant to skin. Based on the available data, the classification criteria are not met.

**Eyes** : Non-irritating to the eyes. Based on the available data, the classification criteria are not met.

#### Sensitisation

Product/ingredient name	Route of exposure	Species	Result
Reaction products of monoethanolamine and boric acid (1:3)	skin	Guinea pig	Not sensitizing

#### Conclusion/Summary

**Skin** : Not a skin sensitizer. Based on the available data, the classification criteria are not met.

**Respiratory** : No respiratory sensitisation studies have been conducted. Based on the available data, the classification criteria are not met.

#### Mutagenicity

Product/ingredient name	Test	Experiment	Result
Reaction products of monoethanolamine and boric acid (1:3)	-	Experiment: In vitro Subject: Mammalian-Human	Negative

**Conclusion/Summary** : Not mutagenic. Based on the available data, the classification criteria are not met.

#### Carcinogenicity

**Conclusion/Summary** : No data available on the product itself.

#### Reproductive toxicity

**Conclusion/Summary** : No data available on the product itself.

#### Teratogenicity

**Conclusion/Summary** : No data available on the product itself.

#### Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Based on the available data, the classification criteria are not met.			



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## SECTION 11: Toxicological information

### Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Based on the available data, the classification criteria are not met.			

### Aspiration hazard

Product/ingredient name	Result
No data available on the product itself. Since, the product is an aqueous complex substance, the aspiration hazard potential is considered low. No classification for aspiration hazard is proposed.	

**Information on likely routes of exposure** : Routes of entry anticipated: Dermal. **Product is not intended for ingestion.**

### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Symptoms of accidental over-exposure to high doses of inorganic borate salts have been associated with ingestion or absorption through large areas of severely damaged skin. These may include nausea, vomiting, and diarrhoea, with delayed effects of skin redness and peeling.
- Ingestion** : This product is not intended for ingestion. Small amounts (e.g., a teaspoon) swallowed accidentally are not likely to cause effects; swallowing amounts larger than that may cause gastrointestinal symptoms. Symptoms of accidental over-exposure to high doses of inorganic borate salts have been associated with ingestion or absorption through large areas of severely damaged skin. These may include nausea, vomiting, and diarrhoea, with delayed effects of skin redness and peeling.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Symptoms of accidental over-exposure to high doses of inorganic borate salts have been associated with ingestion or absorption through large areas of severely damaged skin. These may include nausea, vomiting, and diarrhoea, with delayed effects of skin redness and peeling.
- Ingestion** : Symptoms of accidental over-exposure to high doses of inorganic borate salts have been associated with ingestion or absorption through large areas of severely damaged skin. These may include nausea, vomiting, and diarrhoea, with delayed effects of skin redness and peeling.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Potential chronic health effects

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## SECTION 11: Toxicological information

<b>Conclusion/Summary</b>	: Not available.
<b>General</b>	: No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Reproductive toxicity</b>	: No known significant effects or critical hazards.

### 11.2 Information on other hazards

#### 11.2.1 Endocrine disrupting properties

Not available.

#### 11.2.2 Other information

Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Reaction products of monoethanolamine and boric acid (1:3)	EC50 423 mg/l	<i>Daphnia magna</i>	Fresh water - Acute
	EC50 26 mg/l	<i>Pseudokirchneriella subcapitata</i>	Fresh water - Acute
	LC50 >100 mg/l	<i>Brachydanio rerio</i>	Fresh water - Acute

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Reaction products of monoethanolamine and boric acid (1:3)	-	78 % - 21 days	-	Activated sludge

**Conclusion/Summary** : Not available.

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : The product is soluble in water and is leachable through normal soil. Adsorption to soils or sediments is insignificant.

### 12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Reaction products of monoethanolamine and boric acid (1:3)	No	N/A	N/A	No	N/A	N/A	N/A

### 12.6 Endocrine disrupting properties

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## SECTION 12: Ecological information

Not available.

### 12.7 Other adverse effects

No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

**Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

#### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

14.6 Special precautions for user : Not applicable.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

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## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU Regulation (EC) No. 1907/2006 (REACH)

##### Annex XIV - List of substances subject to authorisation

###### Annex XIV

None of the components are listed.

###### Substances of very high concern

None of the components are listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

#### Other EU regulations

**Industrial emissions (integrated pollution prevention and control) - Air** : Not listed

**Industrial emissions (integrated pollution prevention and control) - Water** : Not listed

#### Ozone depleting substances (1005/2009/EU)

Not listed.

#### Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

#### Persistent Organic Pollutants

Not listed.

#### Seveso Directive

This product is not controlled under the Seveso Directive.

#### National regulations

#### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

#### Inventory list

**Australia** : Not determined.

**Canada** : All components are listed or exempted.

**China** : All components are listed or exempted.

**Eurasian Economic Union** : **Russian Federation inventory**: All components are listed or exempted.

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## SECTION 15: Regulatory information

<b>Japan</b>	: <b>Japan inventory (CSCL):</b> Not determined. <b>Japan inventory (ISHL):</b> Not determined.
<b>New Zealand</b>	: All components are listed or exempted.
<b>Philippines</b>	: Not determined.
<b>Republic of Korea</b>	: All components are listed or exempted.
<b>Taiwan</b>	: All components are listed or exempted.
<b>Thailand</b>	: All components are listed or exempted.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: All components are active or exempted.
<b>Viet Nam</b>	: All components are listed or exempted.

**15.2 Chemical safety assessment** : Complete.

## SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
EUH statement = CLP-specific Hazard statement  
N/A = Not available  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number  
SGG = Segregation Group  
vPvB = Very Persistent and Very Bioaccumulative

**Key literature references and sources for data** : For general information on the toxicology of borates see Patty's Toxicology, 6th Edition Vol. I, (2012) Chap. 23, 'Boron'.

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

### Full text of abbreviated H statements

Not applicable.

### Full text of classifications [CLP/GHS]

Not applicable.

**Date of issue/ Date of revision** : 25/11/2022

**Date of previous issue** : 21/09/2018

**Version** : 1.02

Europe / 4.13 / EN-GB

### Notice to reader

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