SAFETY DATA SHEET



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

1.1 Product identifier	
Product name	: Liquibor [®]
EC number	: Not available.
CAS number	: 10377-81-8
Product code	: Not available.
Product description	: Not available.
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		
Agriculture (Fertilisers) Industrial fluids (Corros	g gulator (other than polymerisation or vulcanization processes)) ion inhibitors and anti-scaling agents, Lubricants and lubricant additives) is provided in the introduction to Annex - Exposure Scenarios	

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 Francais S.A.S.

Usine/Siège Social Route de Bourbourg 59411 Coudekergue-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

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

Liquibor						
1.4 Emergency telephone number						
National advisory body/	Poison Centre					
Telephone number	: 0344 892 0111 UK National Poisons Information Services (NPIS)					
	For medical advice contact: NHS 111 in England: 111 NHS 24 in Scotland: 111 NHS Direct in Wales: 111 or 0845 4647					
<u>Supplier</u> 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 UK CLP/GHS** Not classified.

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended. See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements		
Signal word	1	No signal word.
Hazard statements	:	No known significant effects or critical hazards.
Precautionary statements		
Prevention	1	Not applicable.
Response	:	Not applicable.
Storage	:	Not applicable.
Disposal	:	Not applicable.
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 requirem	en	<u>its</u>
Containers to be fitted with child-resistant fastenings	:	Not applicable.
Tactile warning of danger	:	Not applicable.

2.3 Other hazards

Product meets the criteria	: PBT	Р	В	Т	vPvB	vP	vB	
for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	No	N/A	N/A	No	N/A	N/A	N/A	
Other hazards which do	: None know	'n.			<u>.</u>			

wni not result in classification None known.

SECTION 3: Composition/information on ingredients

3.1 Substances : U	VCB			
Product/ingredient name	Identifiers	%	Classification	Туре
Reaction products of monoethanolamine and boric acid (1:3)	REACH #: 01-2119557854-26 EC: 233-829-3 CAS: 10377-81-8	>99	Not classified. See Section 16 for the full text of the H statements declared above.	[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.

<u>Type</u>

[*] 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.
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Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5	5
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 fi	om the substance or mixture
Hazards from the substance or mixture	: None. The product is not flammable, combustible or explosive.
Hazardous combustion products	: None.
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: Accident	al 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	:	The product is a water-soluble white powder that may cause damage to trees or vegetation by root absorption. 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 or meets local water quality standards.			
6.3 Methods and material for	со	ntainment and cleaning up			
Small spill	:	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.			
Large spill	:	Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste 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 wellventilated area. Cover to minimise evaporation.

Storage temperature: Ambient temperature Storage pressure: Ambient pressure

7.3 Specific end use(s)

Recommendations

Not available.Not available.

Industrial sector specific solutions

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices No exposure indices 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	Туре	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 ³	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 ³	Workers	Systemic
	DNEL	Long term Dermal	189.2 mg/ kg bw/day	Workers	Systemic

SECTION 8: Exposure controls/personal protection

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	10 mg/l	-
	Plant		

8.2 Exposure controls	
Appropriate engineering controls	: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Individual protection meas	<u>Sures</u>
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: Where appropriate, material should be recovered and recycled through the process. Spillages of powder or granulated borates should be swept or vacuumed up immediately and placed in containers for disposal in order to prevent unintentional release to the environment. Waste containing borates should be handled as an hazardous waste and removed by licensed operator to an offsite location where it can be incinerated or disposed to a hazardous landfill.
	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
	Air Emissions: Emissions to air can be removed by one or more of the following dust-control measures: electrostatic precipitators, cyclones, fabric or bag filters, membrane filters, ceramic and metal mesh filters, and wet scrubbers

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	l a	nd chemical properties
<u>Appearance</u>		
Physical state	1	Liquid. [Slight Viscous liquid.]
Colour	1	Pale colour. Yellow.
Odour	1	Ammoniacal. [Slight]
Odour threshold	1	Not available.
Melting point/freezing point	1	Not applicable.
Initial boiling point and boiling range	:	Not applicable.
Flammability (solid, gas)	1	Non-flammable. The product is not flammable, combustible or explosive.
Upper/lower flammability or explosive limits	:	Not available.
Flash point	1	Not available.
Auto-ignition temperature	4	Not applicable. [Not self-heating.]
Decomposition temperature	4	Not available.
рН	4	8.88 [Conc. (% w/w): 5%] ; 9.05 (1.0% solution)
Viscosity	4	Kinematic: 15 mm²/s
Solubility in water	4	Not available.
Partition coefficient: n-octanol/ water	1	Not applicable.
Vapour pressure	1	Not available.
Relative density	4	1.34
Bulk density	4	Not available.
Granulometry	4	Not available.
Vapour density	4	Not available.
Explosive properties	4	Not explosive.
Oxidising properties	1	Not oxidising.
Particle characteristics		
Median particle size	1	Not applicable.

SECTION 10: Stability and reactivity

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

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

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

Conclusion/Summary

: Based on the available data, the classification criteria are not met.

Acute toxicity estimates

N/A

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

data, the classification criteria are not met.

Mutagenicity

Product/ingredient name	Test	Test Experiment				
Reaction products of monoethanolamine and boric acid (1:3)	-	Experiment: In vitro Subject: Mammalian-Human				
Conclusion/Summary	: Not mutagenic. Based of	on the available data, th	e classificatior	n criteria are not met.		
Carcinogenicity						
Conclusion/Summary	Conclusion/Summary : No data available on the product itself.					
Reproductive toxicity	Reproductive toxicity					
Conclusion/Summary	nclusion/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 Pouto of Target organs						

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

Specific target organ toxicity (repeated exposure)

SECTION 11: Toxicological information

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	utes of entry anticipated: Dermal. Product is not in	tended for ingestion.
Potential acute health effect		
Eye contact	known significant effects or critical hazards.	
Inhalation	known significant effects or critical hazards.	
Skin contact	mptoms of accidental over-exposure to high doses of en associated with ingestion or absorption through la maged skin. These may include nausea, vomiting, ar ects of skin redness and peeling.	rge areas of severely
Ingestion	is product is not intended for ingestion. Small amour allowed accidentally are not likely to cause effects; sy an that may cause gastrointestinal symptoms. Sympt posure to high doses of inorganic borate salts have b	wallowing amounts larger toms 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 Inhalation	No specific data.No specific data.
IIIIaiation	. 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

<u>Short term exposure</u>	
Potential immediate effects	: Not available.
Potential delayed effects	Not available.
<u>Long term exposure</u>	
Potential immediate effects	: Not available.
Potential delayed effects	Not available.
Potential chronic health e	ffects
Not available.	
Conclusion/Summary	: Not available.
General	: No known significant effects or critical hazards.

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SECTION 11: Toxicological information

- Carcinogenicity Mutagenicity
- : No known significant effects or critical hazards.
- : No known significant effects or critical hazards.
- Reproductive toxicity

: No known significant effects or critical hazards.

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	Daphnia magna	Fresh water - Acute
(-)	EC50 26 mg/l	Pseudokirchneriella subcapitata	Fresh water - Acute
	LC50 >100 mg/l	Brachydanio rerio	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 (Koc)	: Not available.
Mobility	: The product is soluble in water and

: 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	Р	В	Т	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 Other adverse effects

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

SECTION 13	: Disposal considerations
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•	
Methods of disposal	: The generation of waste should be avoided or minimised wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
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	This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	ΙΑΤΑ	
14.1 UN 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 : Not applicable. **user**

14.7 Maritime transport in bulk according to IMO instruments

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture <u>UK (GB)/REACH</u>

Annex XIV - List of substances subject to authorisation

<u>Annex XIV</u>

None of the components are listed.

Substances of very high concern

None of the components are listed.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Date of issue/Date of revision

: Not available.

SECTION 15: Regulatory information

Not listed.				
Persistent Organic Polluta	<u>nts</u>			
Not listed.				
Annex XVII - Restrictions on	the manufacture, placing on the market and use of certain dangerous			
substances, mixtures and a				
No listed substance				
Seveso Directive				
This product is not controlled	under the Seveso Directive.			
EU regulations				
Industrial emissions	: Not listed			
(integrated pollution				
prevention and control) - Air				
Industrial emissions	: Not listed			
(integrated pollution				
prevention and control) - Water				
International regulations				
	on List Schedules I, II & III Chemicals			
Not listed.				
Montreal Protocol				
Not listed.				
	Persistent Organic Pollutants			
Not listed.				
Rotterdam Convention on P	rior 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.			
Japan	: Japan inventory (CSCL): Not determined.			
	Japan inventory (ISHL): Not determined.			
New Zealand	: All components are listed or exempted.			
Philippines	Not determined.			
Republic of Korea Taiwan	All components are listed or exempted.All components are listed or exempted.			
Thailand	: All components are listed or exempted.			
Turkey	: Not determined.			
United States	: All components are active or exempted.			
Viet Nam	: All components are listed or exempted.			
15.2 Chemical safety	: This product contains substances for which Chemical Safety Assessments are still			
assessment	required.			

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms	 ATE = Acute Toxicity Estimate GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = GB CLP-specific Hazard statement 	
	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

Not classified.

Full text of abbreviated H statements

Not applicable.

Full text of classifications

Not applicable.

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Date of previous issue	: No previous validation
Version	: 1
UK GB / 4.13 / EN-GB	

Notice to reader

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