

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

### 1.1 Product identifier

Product name	BORAX
CAS-No.	1303-96-4
Product code	AR1233

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

Identified uses	Chemical for analysis and production.
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### 1.3 Details of the manufacturer of the safety data sheet

Manufacturer	RCI LABSCAN LIMITED. 24 Rama 1 Road, Pathumwan, Bangkok 10330 Thailand
Telephone number	(662) 613-7911-4
Fax number	(662) 613-7915

### 1.4 Emergency Telephone Number

Emergency phone	(662) 613-7911-4
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## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008

Eye irritation (Category 2), H319

Reproductive toxicity (Category 1B), H360FD

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

### 2.2 Label elements

#### Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statement(s)

H319

Causes serious eye irritation.

H360FD

May damage fertility or the unborn child.

Precautionary statement(s)

P203

Obtain, read and follow all safety instructions before use.

P264 + P265

Wash hands thoroughly after handling. Do not touch eyes.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P318

IF exposed or concerned: get medical advice.

P337 + P317

If eye irritation persists: Get medical help.

### 2.3 Other hazards

None

### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

Synonyms Boraxdecahydrate , Sodium tetraborate decahydrate, di-Sodium tetraborate decahydrate, Sodium boratedecahydrate.

CAS-No	EC-No	EC-Index-No	Formula	Molecular Weight	Weight %
1303-96-4	215-540-4	005-011-01-1	B <sub>4</sub> Na <sub>2</sub> O <sub>7</sub> ·10H <sub>2</sub> O	381.37 g/mol	<=100

#### Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Concentration	Classification
<b>Borax</b>		
CAS-No 1303-96-4	<=100	Eye irritation (Category 2), H319 Reproductive toxicity (Category 1B), H360FD
EC-No 215-540-4		
EC-Index-No 005-011-01-1		

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 safety data sheet to the doctor in attendance.
Inhalation	Move to fresh air in case of accidental inhalation of dust.
Skin contact	Remove contaminated clothing and wash affected skin with soap and water.
Eye contact	If the substance has got into the eyes, immediately wash out with plenty of water at least 15 minutes. Obtain medical attention.
Ingestion	Rinse mouth. After swallowing make victim drink water (two glasses at the most), call in physician.

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

The most important known symptoms and effects are described in section 2.2 and section 11

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

Not Available

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

In adaption to materials stored in the immediate neighborhood.

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

Non-combustible. Ambient fire may liberate hazardous vapors. The following may develop in event of fire: borane/boron oxides, sodium oxides.

#### 5.3 Advice for firefighters

Do not stay in dangerous zone without self-contained breathing apparatus. Avoid contact with skin and wear suitable protective clothing.

#### 5.4 Further information

Contain escaping vapors with water. Prevent fire-fighting water from entering surface water or ground water.

## SECTION 6: Accidental release measures

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

Avoid generation of dusts; do not inhale dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protective equipment see **Section 8**.

### 6.2 Environmental precautions

Do not allow to enter drinking water and sewerage system.

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

Carefully sweep up, gather and remove. Avoid generation of dusts. Keep in suitable, closed containers for disposal. Clean up affected area.

### 6.4 Reference to other sections

For disposal see **Section 13**.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Provision of good ventilation in the working area. Do not leave container open. Avoid spillage. Avoid rising dust.

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

Keep tightly closed in a dry, cool and well-ventilated place. Keep out of direct sunlight and away from heat, water, moisture and incompatible materials.

### 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

### 8.2 Exposure controls

#### Appropriate engineering controls

The product should only be used in ventilation hoods and fans.

#### Individual protection measures (Personal protective equipment, PPE)

##### Eye/face protection

Goggles giving complete protection to eyes.

##### Skin protection

Chemical resistant apron / corrosive protective clothing, heavy duty work shoes.

Handle with gloves

- Full contact wears gloves from nitrile rubber material.
- Splash contact wears gloves from nitrile rubber material.

The select protective gloves have to satisfy the specifications of EU Directive 89/686 EEC and standard EN 374 derived from it.

##### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Required when dusts are generated filter P3 (EN 143) or use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Environmental exposure controls

Prevent liquid entering sewers, basements and workpits.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical State	Crystals
Color	White
Odour	Odorless
Odour Threshold	Not Available
pH	9.2 at 47 g/l H <sub>2</sub> O at 20°C
Melting point/range	75 °C
Boiling point/range	Not Available
Flash point	Not Available
Evaporation rate	Not Available
Flammability (solid, gas)	Not Available
Explosion limits: lower	Not Available
upper	Not Available
Vapor Pressure	0.213 hPa at 20°C
Relative Vapor Density	Not Available
Density	1.72 g/cm <sup>3</sup> at 20°C
Bulk density:	~750 kg/m <sup>3</sup>
Water solubility	51.4 g/l at 20°C
Partition coefficient (n-octanol/water)	Not Available
Auto-Ignition temperature	Not Available
Decomposition Temperature	1575 °C
Viscosity	Not Available
Explosive properties	Not Explosive
Oxidizing properties	The substance or mixture is not classified as oxidizing.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Not Available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

The substance can react dangerously with strong oxidizing agents, acids, moisture/water, metal salts.

### 10.4 Conditions to avoid

Strong heating, moisture.

### 10.5 Incompatible materials

Strong oxidizing agents, acid, moisture/water, metal salts.

### 10.6 Hazardous decomposition products

Borane/boron oxides, sodium oxides (Hazardous decomposition products from under fire condition).

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD<sub>50</sub> (oral, rat): 2660 mg/kg.

LD<sub>50</sub> (dermal, rabbit): >2000 mg/kg.

**Skin corrosion/irritation**

No irritation.

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Respiratory or skin sensitization**

Patch test (human): negative

Sensitization test (guinea pig): No skin-sensitizing effect.

**Germ cell mutagenicity**

Ames test with *Salmonella typhimurium* is negative.

**Carcinogenicity**

Not Available

**Reproductive toxicity**

May damage fertility or the unborn child.

**Specific target organ toxicity (STOT) - single exposure**

Not Available

**Specific target organ toxicity (STOT) - repeated exposure**

Not Available

**Aspiration hazard**

Not Available

**Further information**

Absorption via gastrointestinal tract, mucous membranes.

The following applies to boron compounds in general: nausea and vomiting, agitation, spasms, CNS disorders, cardiovascular disorders.

The product should be handled with the care usual when dealing with chemicals.

## SECTION 12: Ecological information

**12.1 Toxicity**

Toxicity to fish

LC<sub>50</sub> *Carassius auratus*: 630 mg/l/ 72h.

Toxicity to daphnia

EC<sub>50</sub> *Daphnia magna*: 1085-1402 mg/l/48h.

and other aquatic invertebrates

Toxicity to algae

IC<sub>50</sub> *Desmodesmus subspicatus*: 158 mg/l/ 96h.

**12.2 Persistence and degradability**

Biodegradability

Method for the determination of biodegradability is not applicable to inorganic substance.

**12.3 Bioaccumulative potential**

Partition coefficient (n-octanol/water)

Not Available

**12.4 Mobility in soil**

Not 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 Other adverse effects**

Do not allow to enter waters, waste water or soil.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

There are no uniform EC Regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding law and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste or burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

**Contaminated packaging**

Disposal in compliance with official regulations. Handle contaminated packaging as hazardous waste in the same way of the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled.

**SECTION 14: Transport information**

Not subject to transport regulations.

**SECTION 15: Regulatory information**

This safety datasheet complies with the requirements of Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

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

Not Available

**15.2 Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out.

**SECTION 16: Other information****Recommended restrictions**

Take notice of labels and safety data sheets for the working.

**Reference**

Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Labelling according to EC Directives 67/548 EEC and Regulation (EC) No 1272/2008.

Transportation information according to Recommendations on the Transport of Dangerous Goods, Model Regulations. Twelfth revised edition. United Nations.

Institute for Occupational Safety and Health of the German Social Accident Insurance in Sankt Augustin/Germany, Source: IFA for Databases on hazardous substances (GESTIS).

**Further information**

Contact to RCI Labscan Limited.

**Revision Date**16/12/2024

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