



# SAFETY DATA SHEET

## BORAX

---

### 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

---

PRODUCT NAME: BORAX

PRODUCT NO: RM045

SYNONYMS, TRADE NAMES: DISODIUM TETRABORATE DECAHYDRATE

SUPPLIER: J M Loveridge Ltd  
 Unit 5, Kingsway  
 Walworth Industrial Estate, Andover  
 Hampshire, SP10 5LQ  
 +44 (0) 1264 367610  
 +44 (0) 1264 351761  
 Mr. S Knight – admin@jmloveridge.com

EMERGENCY CONTACT NUMBER:

---

### 2 HAZARDS IDENTIFICATION

---

#### CLASSIFICATION OF THE SUBSTANCES OR MIXTURE

Classification (EC 1272/2008):

**Physical Hazards** Not classified  
**Health Hazards** Eye Irrit. 2 – H319, Repr. 1B – H360FD  
**Environment hazards** Not classified

#### LABEL ELEMENTS

EC No: 215-540-4

Pictogram



**Signal Word:** Danger

**Hazard Statements** H319 Causes serious eye irritation  
 : H360FD May damage fertility May damage the unborn child

**Precaution statement** P202 Do not handle until all safety precautions have been read and understood

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.
P308+P313	IF exposed or concerned: Get medical advice/attention
P405	Store locked up
P501	Dispose of contents/container in accordance with national regulations

**SUPPLEMENTAL LABEL INFORMATION**

RCH002a Restricted to professional users.

**OTHER HAZARDS**

Pregnant or breastfeeding women should not work with this product if there is any risk of exposure.

---

**3 COMPOSITION/INFORMATION ON INGREDIENTS**

---

**SUBSTANCES**

**Product Name:** SODIUM TETRABORATE DECAHYDRATE  
**REACH Registration Number:** 01-2119490790-32- XXXX  
**EU index number** 005-011-01-1  
**CAS-No:** 1303-96-4  
**EC No:** 215-540-4

**COMPOSITION COMMENTS**

The data shown are in accordance with the latest EC Directives.

---

**4 FIRST-AID MEASURES**

---

**DESCRIPTION OF FIRST AID MEASURES****INHALATION**

Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

**INGESTION**

Rinse mouth thoroughly with water. Give plenty of water to drink. Do not induce vomiting. Get medical attention if any discomfort continues. Get medical attention if a large quantity has been ingested.

**SKIN CONTACT**

Remove affected person from source of contamination. Remove contaminated clothing. Wash skin immediately with soap and water. Get medical attention if any discomfort continues.

**EYE CONTACT**

remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

**MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED****INHALATION**

Dust in high concentration may irritate respiratory system.

**INGESTION**

Nausea, vomiting, diarrhoea.

**SKIN CONTACT**

Prolonged skin contact may cause redness and irritation.

**EYE CONTACT**

Irritation of eyes and mucous membranes.

**INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED**

**Notes for the doctor**    Treat symptomatically.

---

**5 FIRE-FIGHTING MEASURES**

---

**EXTINGUISHING MEDIA****SUITABLE EXTINGUISHING MEDIA**

The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.

**UNSUITABLE EXTINGUISHING MEDIA**

Do Not use water jet as an extinguisher, as this will spread the fire.

**SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE****HAZARDOUS COMBUSTION PRODUCTS**

No known hazardous decomposition products.

**ADVICE FOR FIREFIGHTERS****SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS**

Wear positive- pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

---

**6 ACCIDENTAL RELEASE MEASURES**

---

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

Wear protective clothing as described in Section 8 of this Safety Data Sheet. Avoid contact with skin and eyes. Provide adequate ventilation.

**ENVIRONMENTAL PRECAUTIONS****ENVIRONMENT PRECAUTIONS**

Avoid the Spillages or runoff entering drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

**METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP****METHODS FOR CLEANING UP**

Avoid generation and spreading of dust. Collect and place in suitable waste disposal containers. Seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible.

**REFERENCE TO OTHER SECTIONS****REFERENCE TO OTHER SECTIONS**

Wear protective clothing as described in Section 8 of this Safety Data Sheet. For waste disposal, see Section 13.

---

## 7 HANDLING AND STORAGE

---

### PRECAUTIONS FOR SAFE HANDLING

#### USAGE PRECAUTIONS

Avoid spilling. Avoid contact with skin and eyes. Avoid handling which leads to dust formation. Provide adequate ventilation.

#### ADVICE ON GENERAL OCCUPATIONS HYGIENE

Pregnant or breastfeeding women should not work with this product if there is any risk of exposure. Do not eat, drink or smoke when using this product. Remove contaminated clothing and protective equipment before entering areas. Wash after use and before eating, smoking and using toilet.

#### CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

#### STORAGE PRECAUTIONS

Store in tightly closed original container in well-ventilated place. Store at temperatures between -40°C and 40°C. Avoid contact with strong reducing agents.

---

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

---

### CONTROL PARAMETERS

#### OCCUPATIONAL EXPOSURE LIMITS

Long-term exposure limit (8-hour TWA): WEL 5 mg/m<sup>3</sup>

WEL = Workplace Exposure Limits

INGREDIENT COMMENTS OEL- value for Borates

<b>DNEL</b>	<b>Consumer</b>	Oral Short Term Systemic Effects 1.51 mg/kg/day
	<b>Consumer</b>	Oral Long Term Systemic Effects 1.51 mg/kg/day
	<b>Professional</b>	Inhalation Short Term Local Effects 22.3 mg/m <sup>3</sup>
	<b>Professional</b>	Inhalation Long Term Local Effects 22.3 mg/m <sup>3</sup>
	<b>Professional</b>	Inhalation Long Term Systemic Effects 12.76 mg/m <sup>3</sup>
	<b>Consumer</b>	Inhalation local effects; 22.3 mg/m <sup>3</sup>
	<b>Consumer</b>	Inhalation Long Term Systemic Effects 6.50 mg/m <sup>3</sup>
	<b>Industry</b>	Dermal Long Term Systemic Effects 599.6 mg/kg/day
	<b>Consumer</b>	Dermal Long Term Systemic Effects 303.5 mg/kg/day

#### **PNEC**

<b>Freshwater</b>	2.02 mg/l
<b>Marinewater</b>	2.02 mg/l
<b>Water Intermittent release</b>	13.7mg/l
<b>Soil</b>	5.4 mg/kg
<b>STP</b>	10 mg/l

### EXPOSURE CONTROLS

#### PROTECTIVE EQUIPMENT



### APPROPRIATE ENGINEERING CONTROLS

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limit for the product or ingredients. Pregnant or breastfeeding women should not work with this product if there is any risk of exposure.

### EYE / FACE PROTECTION

The following protection should be worn. Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

### HAND PROTECTION

The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. It is recommended that gloves are made of the following material; polyvinyl chloride (PVC). Nitrile rubber. Butyl rubber. Rubber (natural, latex). To protect hands from Chemical gloves should comply European Standard EN374.

### HYGIENE MEASURES

When using do not eat, drink or smoke. Wash after use and before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas. Take off immediately all contaminated clothing and wash it before reuse.

### RESPIRATORY PROTECTION

If ventilation is inadequate, suitable respiratory protection must be worn. Particulate filter, type P3. EN 136/140/141/145/143/149

---

## 9 PHYSICAL AND CHEMICAL PROPERTIES

---

### INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Crystalline Solid
<b>Colour:</b>	White
<b>Odour:</b>	Odourless
<b>Odour threshold</b>	Not applicable.
<b>PH</b>	PH (diluted solution): 9.3@0.1%
<b>Melting Point</b>	> 1000°C
<b>Initial Boiling Point and range</b>	Not available
<b>Flash point</b>	Not applicable
<b>Evaporation Rate:</b>	Not applicable
<b>Evaporation Factor:</b>	Not available
<b>Flammability (solid, gas)</b>	No information available
<b>Upper/Lower flammability or</b>	Not applicable
<b>Explosive limits</b>	
<b>Other flammability</b>	No information available
<b>Vapour pressure</b>	Not applicable
<b>Vapour density</b>	Not applicable

<b>Relative density</b>	<u>1.72@23°C</u>
<b>Bulk density</b>	No information available
<b>Solubility (ies)</b>	49.74 g/l water @20 °C Soluble in water
<b>Partition Coefficient</b>	log POW – 1.53
<b>Auto-ignition temperature</b>	Not applicable
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not applicable
<b>Explosive Properties:</b>	Not considered to be explosive
<b>Explosive under the influence of a flame</b>	No information available
<b>Oxidising Properties:</b>	Does not meet criteria for classification as oxidising

#### **OTHER INFORMATION**

<b>Refractive index</b>	No information available
<b>Particle size</b>	No information available
<b>Molecular Weight:</b>	381.37
<b>Volatility</b>	No information available
<b>Saturation concentration</b>	No information available
<b>Critical temperature</b>	No information available
<b>Volatile organic compound</b>	No information available

---

### **10 STABILITY AND REACTIVITY**

---

#### **REACTIVITY**

##### **REACTICITY**

There are no known reactivity hazards associated with this product

#### **CHEMICAL STABILITY**

##### **STABILITY**

Stable at normal ambient temperature and when used as recommended

#### **POSSIBILITY OF HAZARDOUS REACTIONS**

##### **POSSIBILITY OF HAZARDOUS REACTIONS**

In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air

#### **CONDITIONS TO AVOID**

##### **CONDITIONS TO AVOID**

Avoid excessive heat for prolonged periods of time

#### **INCOMPATIBLE MATERIALS**

##### **MATERIALS TO AVOID**

Strong reducing agents.

#### **HAZARDOUS DECOMPOSITION PRODUCTS**

##### **HAZARDOUS DECOMPOSITION PRODUCTS**

Dose not decompose when used and stored as recommended

---

## **11 TOXICOLOGICAL INFORMATION**

---

### **INFORMATION ON TOXICOLOGICAL EFFECTS**

#### **Acute toxicity -oral**

<b>Acute toxicity oral (LD<sub>50</sub>mg/kg)</b>	<b>5,560.0</b>
<b>Species</b>	Rat
<b>Notes (oral LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met

#### **ACUTE TOXCITY-DEM AL**

<b>Acute toxicity dermal (LD<sub>50</sub>mg/kg)</b>	2,000.0
<b>Species</b>	Rabbit
<b>Notes (dermal LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met

#### **ACUTE TOXCITY-INHALATION**

<b>Acute Toxicity Inhalation (LC<sub>50</sub> dust/mist mg/l)</b>	2.03
<b>species</b>	Rat
<b>Notes (inhalation LC<sub>50</sub>)</b>	OECD 403 Based on available data the classification criteria are not met
<b>ATE inhalation (dusts/mists mg/l)</b>	2.03

#### **SKIN CORROSION/IRRITATION**

<b>Animal data</b>	Not irritating Rabbit
--------------------	-----------------------

#### **SERIOUS EYE DAMAGE/IRRITATION**

<b>Serious eye damage/irritation</b>	Moderately irritating Rabbit
--------------------------------------	------------------------------

#### **RESPIRATORY SENSITISATION**

<b>Respiratory sensitisation</b>	There is no evidence that the material can lead to respiratory hypersensitivity
----------------------------------	---

#### **SKIN SENSITISATION**

<b>Skin sensitisation</b>	Buehler test: Guinea Pig OECD 406 Not sensitising
---------------------------	---

#### **GERM CELL MUTAGENICITY**

<b>Genotoxicity –in vitro</b>	Negative Estimated Value This substance has no evidence of Mutagenic properties. Based on available data the classification criteria are not met.
-------------------------------	---

#### **CARCINOGENICITY**

<b>Carcinogenicity</b>	1150 mg/kg/day Oral Mouse Estimate Value There is evidence that the products can cause cancer.
------------------------	--

#### **REPRODUCTIVE TOXICITY**

<b>Reproductive Toxicity – Fertility</b>	Three-generation study: NOAEL 155 mg/kg/day Oral Rat May damage fertility
--	---

**Reproductive toxicity development** Developmental toxicity: - NOAEL:85 mg/kg/day, Oral, Rat Known reproductive toxicant based on animal evidence May damage the unborn child.

#### **SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE**

**STOT – Single exposure** NOAEL 0.186 mg/l/4hr Inhalation. Mouse Not classified as a Specific target Organ toxicant after a single exposure.

#### **SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE**

**STOT – Repeated exposure** NOAEL 118mg/kg Oral Rat Not classified as a specific target organ toxicant after repeated exposure.

#### **ASPIRATION HAZARD**

**Aspiration Hazard** Not applicable

#### **INHALATION**

Dust in high concentrations may cause irritation to the respiratory system

#### **INGESTION**

Nausea, vomiting, diarrhoea

#### **SKIN CONTACT**

Skin irritation should not occur when used as recommended  
Prolonged and frequent contact may cause redness and irritation

#### **EYE CONTACT**

Causes serious eyes irritation.

#### **ACUTE AND CHRONIC HEALTH HAZARDS**

May damage the unborn child May damage fertility

### **12 ECOLOGICAL INFORMATION**

#### **EXOTOXICITY**

The product components are not classified as environmentally hazardous. However large or frequent spills may have hazardous effects on the Environment.

#### **TOXICITY**

#### **TOXICITY**

Not considered toxic to fish.

#### **ACUTE AQUATIC TOXICITY**

#### **ACUTE TOXICITY - FISH**

LC50 96 hours 708 mg/l Pimephales promelas (Fat-head Minnow)

#### **ACUTE TOXICITY – AQUATIC INVERTEBRATES**

EC<sub>50</sub> 1000 mg/l Freshwater invertebrates

#### **ACUTE TOXICITY – AQUATIC PLANTS**

EC<sub>50</sub> 247.8 mg/l Selenastrum capricornutum

#### **PERSISTANCE AND DEGRADABILITY**

#### **PERSISTANCE AND DEGRADABILITY**

The product contains only inorganic substances which are not Biodegradable



**BIOACCUMULATIVE POTENTIAL****BIOACCUMULATIVE POTENTIAL** No information available**PARTITION COEFFICIENT** log Pow – 1.53**MOBILITY IN SOIL****MOBILITY** The product is soluble in water**RESULTS OF PBT AND vPvB ASSESSMENT****RESULTS OF PBT AND vPvB  
ASSESSMENT** Not applicable**OTHER ADVERSE EFFECTS****OTHER ADVERSE EFFECTS** None known

---

**13 DISPOSAL CONSIDERATIONS**

---

**WASTE TREATMENT METHODS****GENERAL INFORMATION** Waste is classified as hazardous waste.**DISPOSAL METHODS** Dispose of waste to licensed waste disposal site in accordance with the Requirements of the local waste disposal authority.

---

**14 TRANSPORT INFORMATION**

---

**GENERAL**

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

**UN NUMBER**

Not applicable

**UN PROPER SHIPPING NAME**

Not applicable

**TRANSPORT HAZARD CLASS(ES)**

No transport warning sign required

**PACKING GROUP**

Not applicable

**ENVIRONMENTAL HAZARDS****Environmentally Hazardous Substance/Marine Pollutant**

No

**SPECIAL PRECAUTIONS FOR USER**

Not applicable

**TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL AND THE IBC CODE**

**TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE**

Not applicable

---

**15 REGULATORY INFORMATION**

---

**SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE**

**EU LEGISLATION**

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH), amended Regulation (EC) No 1272/2008 of the European parliament and of the council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).  
Commission Regulation (EU) 2015/830 of May 2015.

**RESTRICTIONS (TITLE VIII  
REGULATION 1907/2006)**

This product is/contains a substance that is included in REGULATION (EC) No 1907/2006 (REACH) ANNEX XVII-RESTRICATIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES. Entry number 30

**CHEMICAL SAFETY ASSESSMENT**

A chemical safety assessment has been carried out

**INVENTORIES**

**EU-ENECS/ELINCS**

All the ingredients are listed or exempt

**CANADA DSL/NDL**

All the ingredients are listed or exempt  
DSL

**US-TSCA**

All the ingredients are listed or exempt

**JAPAN- MITI**

All the ingredients are listed or exempt

**KOREA-KECI**

All the ingredients are listed or exempt

**CHINA-IECSC**

All the ingredients are listed or exempt

---

**16 OTHER INFORMATION**

---

**ABBREVIATIONS AND ACRONYMS  
USED IN THE SAFETY DATA SHEET**

<b>ATE</b>	Acute Toxicity Estimate
<b>ADR</b>	European Agreement concerning the International Carriage Of Dangerous Goods by road
<b>ADN</b>	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
<b>CAS</b>	Chemicals Abstracts Services.
<b>DNEL</b>	Derived No effects Level
<b>IATA</b>	International Air Transport Association
<b>IMDG</b>	International Maritime Dangerous Goods
<b>KOW</b>	Octanol- water partition coefficient
<b>LC<sub>50</sub></b>	Lethal Concentration to 50% of a test population
<b>LD<sub>50</sub></b>	Lethal Dose to 50% of a test population (Median Lethal Dose)
<b>PBT</b>	Persistent Bioaccumulative and Toxic substance
<b>PNEC</b>	Predicted No Effect Concentration
<b>REACH</b>	Registration Evaluation Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
<b>RID</b>	European Agreement concerning the International Carriage By Rail
<b>VPvB</b>	Very Persistent and Very Bioaccumulative
<b>IARC</b>	International Agency for Research on Cancer
<b>MARPOL 73/78</b>	International Convention for the Prevention of Pollution from Ships 1973 as modified by the Protocol of 1978
<b>cATpE</b>	Converted Acute Toxicity Point Estimate
<b>BCF</b>	Bioconcentration Factor
<b>BOD</b>	Bioconcentration Oxygen Demand
<b>EC<sub>50</sub></b>	50% of maximal Effective Concentration
<b>LOAEC</b>	Lowest Observed Adverse Effect Concentration
<b>LOAEL</b>	Lowest Observed Adverse Effect Level
<b>NOAEC</b>	No Observed Adverse Effect Concentration
<b>NOAEL</b>	No Observed Adverse Effect Level
<b>NOEC</b>	No Observed Effect Level
<b>LOEC</b>	Lowest Observed Effect Concentration
<b>DMEL</b>	Derived Minimal Effect Level

<b>EL50</b>	Exposure Limit 50
<b>hPa</b>	Hectopascal
<b>LL50</b>	Lethal Loading fifty
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>POW</b>	Octanol-water partition coefficient
<b>SCBA</b>	Self-contained breathing apparatus
<b>STP</b>	Sewage Treatment Plant
<b>VOC</b>	Volatile Organic Compounds

**CLASSIFICATION ABBREVIATIONS  
AND ACRONYMS**

Acute Tox = Acute toxicity  
Aquatic Acute = Hazardous to the aquatic environment (acute)  
Aquatic Chronic=Hazardous to the aquatic environment (chronic)

**HAZARD STATEMENTS IN FULL**

**H319** Causes serious eye irritation  
**H360FD** May damage fertility or the unborn child

**DISCLAIMER**

The foregoing data has been compiled for safety information only and does not form part of any selling specification. Information contained in this SDS is to the best of JML's knowledge correct at the time of publication. However, no guarantee is given to its accuracy, reliability or completeness and the information may not be valid if the product is used in combination with other materials or process. It is the responsibility of the user to ensure that the product which they have selected is entirely suitable for their purpose under their conditions of use and in compliance with current regulatory requirements.