



SAFETY DATA SHEET
Boric Acid

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name Boric Acid
Synonyms, Trade Names Optibor....., Orthoboric Acid, , Boracic Acid

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

1.3. Details of the supplier of the safety data sheet

Supplier: THE CARBON GROUP
RINGASKIDDY
CORK
IRELAND
Tel: +353 21 4378988
Fax: +353 21 4378950
E-mail: info@carbon.ie
Contact Person SDS Contact: DCM Compliance, info@dcmcompliance.com

1.4. Emergency telephone number

+353 21 4378988

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Not classified.
Human health	Acute Tox. 4 - H302;Acute Tox. 4 - H332;Repr. 1A - H360FD;STOT Rep. 2 - H373
Environment	Not classified.

Classification (1999/45/EEC)

Repr. Cat. 1;R60, R61. Xn;R20/22. R33.

2.2. Label elements

Contains: Boric Acid

Label In Accordance With (Ec) No. 1272/2008



Signal Word Danger

Hazard Statements

H302	Harmful if swallowed.
H332	Harmful if inhaled.
H360FD	May damage fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P281	Use personal protective equipment as required.

Boric Acid

P301+312

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P308+313

IF exposed or concerned: Get medical advice/attention. P 501 Dispose of contents/container for incineration.

Supplementary Precautionary Statements

P271

Use only outdoors or in a well-ventilated area.

P304+340

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P311

Call a POISON CENTER or doctor/physician.

P405

Store locked up.

Supplemental Label Information (EU)

RCH002

Restricted to professional users.

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Boric Acid	90-100%
CAS-No.: 10043-35-3	EC No.: 233-139-2
Classification (EC 1272/2008) Acute Tox. 4 - H302 Acute Tox. 4 - H332 Repr. 1B - H360FD STOT Rep. 2 - H373	Classification (67/548/EEC) Repr. Cat. 2;R60,R61. T;R20/22. R33.

The Full Text for all R-Phrases is Hazard Statements are Displayed in Section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Information

Keep the affected person warm and at rest. Get prompt medical attention. NOTE! Effects may be delayed. Keep affected person under observation. Consult a physician for specific advice.

Inhalation.

Move the exposed person to fresh air at once. Get medical attention. Provide rest, warmth and fresh air. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.

Ingestion

DO NOT INDUCE VOMITING! NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Drink plenty of water. Get medical attention immediately! Provide rest, warmth and fresh air.

Skin Contact

Important to remove the substance from the skin immediately. Remove contaminated clothing. Get medical attention promptly if symptoms occur after washing. Wash the skin immediately with soap and water.

Eye Contact

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.

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

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

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing Media

Use fire-extinguishing media appropriate for surrounding materials. Material itself is fire retardant.

5.2. Special hazards arising from the substance or mixture

Specific Hazards

In case of fire, toxic gases may be formed.

Boric Acid

5.3. Advice for firefighters

Special Fire Fighting Procedures

NOTE! Use air-supplied respirators to protect against gases/fumes. Use special protective clothing. Regular protection may not be safe.

Protective Measures In Fire

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Do not discharge onto the ground or into water courses.

6.3. Methods and material for containment and cleaning up

Wear necessary protective equipment. Ventilate well. Avoid contact with skin or inhalation of spillage, dust or vapour. Collect with absorbent, non-combustible material into suitable containers. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Avoid water on spilled material or leaking containers. Do not contaminate water sources or sewer.

6.4. Reference to other sections

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container.

Storage Class

Toxic storage.

7.3. Specific end use(s)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Ingredient Comments

MEL = Maximum Exposure Limit. OES = Occupational Exposure Standard.

8.2. Exposure controls

Protective Equipment



Engineering Measures

Must not be handled in confined space without sufficient ventilation. If enclosed handling cannot be guaranteed, ventilation and protective clothing must be used.

Respiratory Equipment

Respiratory protection must be used if air contamination exceeds acceptable level.

Hand Protection

Protective gloves should be used if there is a risk of direct contact or splash. For prolonged or repeated skin contact use suitable protective gloves. Nitrile gloves are recommended.

Eye Protection

Wear approved safety goggles. Use face shield in case of splash risk.

Other Protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

Boric Acid

Hygiene Measures

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap & water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Solid
Colour	White
Odour	Odourless
Melting Point (°C)	171
Relative Density	1.44 20 Deg C
pH-Value, Diluted Solution	4 30 g/l
Solubility Value (G/100G H ₂ O@20°C)	4.6% w/w of saturated solution at 20 °C.

9.2. Other information

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

N/A

10.2. Chemical stability

Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions

Not available.

10.4. Conditions to avoid

Avoid heat.

10.5. Incompatible materials

Materials To Avoid

Acid anhydrides.

10.6. Hazardous decomposition products

Fire creates: Toxic gases/vapours/fumes of: Oxides of: Boron.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxic Dose 1 - LD 50 Current data unavailable.

Toxicological Information

No information available.

Health Warnings

Contact with this chemical can be hazardous. Known or suspected teratogen. This chemical can be hazardous when inhaled and/or touched. Prolonged exposure to the preparation may cause serious health effects. INHALATION. Prolonged inhalation of high concentrations may damage respiratory system. SKIN CONTACT. May be absorbed through injured skin and cause poisoning. Irritating to skin. May cause sensitisation by skin contact. EYE CONTACT. May cause severe irritation to eyes. INGESTION. May cause internal injury.

Route of entry

Inhalation. Ingestion. Skin and/or eye contact. Skin absorption.

Target Organs

Skin Eyes Respiratory system, lungs

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

No data on possible environmental effects have been found.

12.1. Toxicity

LC 50, 96 Hrs, Fish mg/l 5600. Classification: Highly Toxic

Boric Acid

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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. The UN Globally Harmonised System (GHS) Safety Data Sheet format (Annex IV) is implemented as Annex II of REACH EU No 453/2010 of 20th May 2010 amending regulation (EC) No 1907/2006 Regulation EC 1272/2008 on the classification, labelling and packaging (CLP) of substances and mixtures which entered into force on 20 January 2009 and replaced both Dangerous Substance Directive 67/548/EC (DSD) and Dangerous Preparation Directive 1999/45/EC.

Water Hazard Classification

Risk for water environment = Medium

15.2. Chemical Safety Assessment

SECTION 16: OTHER INFORMATION

Revision Date 07/04/2011

Revision 2

Supersedes Date 07/04/2011

Risk Phrases In Full

R33 Danger of cumulative effects.

R20/22 Harmful by inhalation and if swallowed.

R61 May cause harm to the unborn child.

R60 May impair fertility.

Hazard Statements In Full

H332 Harmful if inhaled.

H302 Harmful if swallowed.

H373 May cause damage to organs <<Organs>> through prolonged or repeated exposure.

H360FD May damage fertility or the unborn child.

Disclaimer

Information contained in this publication, while accurate to the best knowledge and belief of Carbon Group, is not intended and should not be construed as a warranty or representation for which Carbon Group assumes any legal responsibility.

Any information or advice obtained from Carbon Group otherwise than by means of this publication and whether relating to Carbon Group material or other materials, is also given in good faith. However, it remains at all times the responsibility of the customer to ensure that Carbon Group materials are suitable for the particular purpose intended.

Insofar as materials not manufactured or supplied by Carbon Group are used with or instead of Carbon Group material, the customer should ensure that he has received from the manufacturer or supplier all technical data and other information relating to such materials.

Carbon Group accepts no liability whatsoever (except as otherwise expressly provided by law) arising out of the use of the information supplied, the application, adaptation or processing of the products described herein, the use of other materials in lieu of Carbon Group materials or the use of Carbon Group materials in conjunction with other materials.