

SECTION 1: Identification**SECTION 1. IDENTIFICATION****1.1 Product Identifier**
Product Name**X-PO pH Down Buffer****1.2 Other means of identification****1.3 Recommended use of product and restrictions on use****1.4 Suppliers Details**

Closed System Treatment

6 The Granary Building
 Millow Hall Farm, Millow (Dunton)
 Biggleswade Bedfordshire
 SG18 8RH
 United Kingdom
 Non-Emergency Tel: 44-1767 500150

**VEXO International (UK) LTD****1.5 Emergency Phone Number****800-424-9300 CHEMTREC®****24 Hour Emergency Response****SECTION 2: Hazard identification****General hazard statement**

To the best of our knowledge, this Safety Data Sheet is prepared to comply with US OSHA 29 CFR 1910.1200 and other governmental agencies, both domestic and foreign. Hazard and precautionary statements are based on maximum listed concentrations of each hazardous ingredient. Unlisted ingredients are not "hazardous" per the OSHA Hazard Communication Standard (29 CFR 1910.1200) and/or other governmental agencies.

2.1 Classification of the substance or mixture**GHS classification in accordance with: OSHA (29 CFR 1910.1200)**

- Acute toxicity, oral, Cat. 4
- Toxic to reproduction, Cat. 1B
- Eye damage/irritation, Cat. 2B
- Skin corrosion/irritation, Cat. 4

2.2 GHS label elements, including precautionary statements.**Pictogram****Irritant Health hazard****Signal word****Danger****Hazard statement(s)**

H302
 H316
 H319
 H360
 H413

Harmful if swallowed.
 Causes mild skin irritation.
 Causes serious eye irritation.
 May damage fertility or the unborn child.
 May cause long lasting harmful effects to aquatic life.

Precautionary statement(s)

P261
 P262
 P264
 P270
 P280
 P301+P312

Avoid breathing dust/fume/gas/mist/vapors/spray.
 Do not get in eyes, on skin, or on clothing.
 Wash hands thoroughly after handling.
 Do not eat, drink, or smoke when using this product.
 Wear protective gloves/protective clothing/eye protection/face protection.
 IF SWALLOWED: Call a POISON CENTER /doctor if you feel unwell,

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P302+P352

P304+P340

P305+P351+P338

P308+P313

P310

P333+P313

P337+P313

P361+P364

P501

IF ON SKIN: Wash with plenty of water for at least 15 minutes.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

IF exposed or concerned: Get medical advice/attention.

Immediately call a POISON CENTER/doctor if feeling unwell.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off immediately all contaminated clothing and wash it before reuse.

Dispose of contents/container in accordance with local/regional regulations

2.3 Other hazards which do not result in classification.

No data available.

Statement regarding ingredients of unknown toxicity

No data available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

2. Trihydrogen Borate

Concentration

>99 % (weight)

Other names / synonyms

acide borique ; Acidum boricum; BORACIC ACID; Boric acid (H3BO3); boric acid [1]; BORIC ACID; BOROFAX; HYDROGEN ORTHOBORATE; NCI-C56417; ORTHOBORIC ACID;

EC no.

233-139-2

CAS no.

10043-35-3

Index no.

005-007-00-2

- Toxic to reproduction, Cat. 1B

H360

May damage fertility or unborn child

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell.

Acute and delayed symptoms and effects: May cause respiratory irritation.

Signs/symptoms may include burning pain in the nose and throat, coughing.

In case of skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower for at least 15 minutes. Call a poison center or doctor if irritation develops or persists. Wash contaminated clothing before reuse.

Acute and delayed symptoms and effects: Causes skin irritation.

Signs/symptoms may include localized redness, swelling, itching.

In case of eye contact

Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor.

Acute and delayed symptoms and effects: Causes serious eye irritation.

Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing.

If swallowed

Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Never give anything by mouth to an unconscious person.

Acute and delayed symptoms and effects: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

4.2 Most important symptoms/effects, acute and delayed.

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

No data available.

SECTION 5: Fire-fighting measures**5.1 Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

5.2 Specific hazards arising from the chemical.

None known other than material can splatter above 100°C/212°F.

5.3 Special protective actions for fire-fighters

Avoid any skin contact. Effects of contact or inhalation may be delayed. Fire may produce irritating, corrosive and/or toxic gases. Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution. Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment, and emergency procedures**

Wear respiratory protection if necessary. Avoid breathing gas, mist, vapor, or spray. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up.

Stop leak if you can do it without risk. Sweep up and shovel into suitable containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Do not swallow. Avoid breathing dust, vapor, or spray. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. See Section 8 for information on Personal Protective Equipment.

7.2 Conditions for safe storage, including any incompatibilities.

Store away from incompatible materials. See Section 10 for information on Incompatible Materials. Keep out of the reach of children.

Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters**

1. Trihydrogen Borate (CAS: 10043-35-3 EC: 233-139-2)

TWA: 2.000000
mg/m³; USA (ACGIH)
STEL: 6.000000
mg/m³; USA (ACGIH)
TWA: 2.000000
mg/m³; USA (ACGIH)
TWA: 2.000000
mg/m³; USA (ACGIH)
STEL: 6.000000
mg/m³; USA (ACGIH)
STEL: 6.000000
mg/m³; USA (ACGIH)

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TWA: 2 mg/m³; USA (ACGIH)
STEL: 6 mg/m³; USA (ACGIH)

8.2 Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Pictograms



Eye/face protection

Safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Wear protective gloves. Consult manufacturer specifications for further information.

Body protection

Wear protective clothing. Clothing with full length sleeves and pants should be worn. The type of protective equipment must be selected according to the concentration and amount of dangerous substances at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Thermal hazards

No data available.

Control banding approach

No data available.

Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	White color Powder
Odor	Characteristic
Odor threshold	Characteristic
pH	Of 1% solution: <3.00
Melting point/freezing point	NA
Initial boiling point and boiling range	NA
Flash point	No data available.
Evaporation rate	NA
Flammability (solid, gas)	Non-flammable
Upper/lower flammability limits	No data available.
Upper/lower explosive limits	No data available.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	No data available.
Solubility(ies)	Completely soluble in water
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

SECTION 10: Stability and reactivity**10.1 Reactivity**

Contact with incompatible materials. Sources of ignition. Exposure to heat.

10.2 Chemical stability

Stable under normal storage conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid.

Heat, flames, and sparks. Incompatible products. Keep away from open flames, hot surfaces, and sources of ignition.

10.5 Incompatible materials

Avoid contact with Strong Acids, Strong Alkalis, Oxidizers, or any other type of reactive material.

Trihydrogen Borate: Potassium, Acid anhydrides

10.6 Hazardous decomposition products

No data available on product.

Boric acid: Hazardous decomposition products formed under fire conditions. - Borane/boron oxides

Other decomposition products - No data available. In the event of fire: see section 5.

SECTION 11: Toxicological information**Information on toxicological effects****Acute toxicity**

Likely Routes of Exposure: Eye contact. Skin contact. Inhalation. Ingestion.

Components:

Trihydrogen Borate: LD50 Oral - Rat - 2,660 mg/kg

Symptoms (including delayed and immediate effects):

Inhalation: May cause respiratory irritation. Signs/symptoms may include burning pain in the nose and throat, coughing.

Ingestion: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Skin corrosion/irritation

Causes skin irritation. Signs/symptoms may include localized redness, swelling, itching, intense pain, blistering.

Trihydrogen Borate: LD50 Skin - Rabbit - 2000mg/kg

Serious eye damage/irritation

Causes serious eye irritation. Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing.

Respiratory or skin sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity

No data available.

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available.

Summary of evaluation of the CMR properties

No data available.

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

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Aspiration hazard

No data available.

Additional information

No data available.

SECTION 12: Ecological information

Toxicity

No data available on product

Components:

Trihydrogen Borate: LC50 - Ptychocheilus lucius - 279 mg/l - 96 h

Trihydrogen Borate: LC0 - Lepomis macrochirus (bluegill) - > 1,021 mg/l - 96 h

Trihydrogen Borate: LC50 - Daphnia magna (water flea) - 53.2 mg/l - 21 d

Trihydrogen Borate: EC50 - Daphnia magna (water flea) - 133 mg/l - 48 h

Persistence and degradability

No data available on product

Bioaccumulative potential

No data available on product

Mobility in soil

No data available.

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

Other adverse effects

No data available.

SECTION 13: Disposal considerations

Disposal of the product

Disposal should be in accordance with applicable Federal, State, and local laws and regulations. Local regulations may be more stringent than State or Federal requirements.

Disposal of contaminated packaging

Dispose of unused products.

Waste treatment

Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable federal, state, and local regulations.

Sewage disposal

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewer.

Other disposal recommendations

Triple rinse the empty containers with water before disposal to recondition or land fill or garbage.

SECTION 14: Transport information

DOT (US)

UN Number: NA

Class: NA

Packing Group: NA

Proper Shipping Name: NON-REGULATED MATERIALS

Reportable quantity (RQ): NA

Marine pollutant: No

Poison inhalation hazard: No

IMDG

UN Number:

Class:

Packing Group:

EMS Number:

Proper Shipping Name:

IATA

UN Number:

Class:

Packing Group:

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Proper Shipping Name:

SECTION 15: Regulatory information

15.1 Safety, health, and environmental regulations specific for the product in question

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Toxic Substances Control Act (TSCA) Inventory

All components of this product are listed in the U.S. Environmental Protection Agencies, Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) RQ: Not listed.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Chronic Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

New Jersey Right To Know Components

Trihydrogen Borate: CAS-No. 10043-35-3

Pennsylvania Right To Know Components

Trihydrogen Borate: CAS-No. 10043-35-3

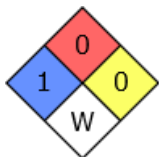
California Prop. 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

HMIS Rating

X-PO pH Down Buffer	
HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	F

NFPA Rating



SECTION 16: Other information

16.1 Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their purposes. In no event shall manufacturer be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages, whatsoever arising, even if manufacturer has been advised of the possibility of such damages. Date of Preparation/Revision: 7/2024