

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1. Product identifier****Product Name/Catalog ID** SS-10115; SS-10215; SS-10515**Product Description** 10 000 µg/mL Boron
Contains Boric acid (H₃BO₃)**1.2. Relevant identified uses of the substance or mixture and uses advised against****Recommended Use** Laboratory chemicals**Uses advised against** No information available**1.3. Details of the supplier of the safety data sheet****Company**Teknolab
Verkstedveien 29
1400 Ski
Norway
Tel: +47 66 81 34 70
Fax: +47 66 81 34 71
e-mail: mail@teknolab.no
Web: www.spectrascan.no**1.4. Emergency telephone number**Chemtrec 1-800-424-9300 (North America)
Chemtrec +1 703-741-5970 (International)

Europe	See above
Norway	Poisons Information (NO): + 47 22 591300

Section 2: HAZARDS IDENTIFICATION**2.1. Classification of the substance or mixture**

REGULATION (EC) No 1272/2008

Classification according to EU Directives 67/548/EEC or 1999/45/EC**Symbol(s)**

T - Toxic

R-code(s)

Repr. cat. 2; R60 - Repr. cat. 2; R61

GHS

Acute toxicity - Inhalation (Dusts/Mists)	Category 4 - (H332)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Reproductive toxicity	Category 1B - (H360)
Chronic aquatic toxicity	Category 3 - (H412)

For the full text of the R phrases mentioned in this Section, see Section 16

2.2. Label Elements**Product identifier**Contains Boric acid (H₃BO₃)**Signal word**

Danger

Hazard statements

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H332 - Harmful if inhaled

H360 - May damage fertility or the unborn child

H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements - EU (§28, 1272/2008)

P201 - Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear protective gloves and eye/face protection

P281 - Use personal protective equipment as required

P308 + P313 - IF exposed or concerned: Get medical advice/attention

2.3. Other information

Other hazards

Harmful to aquatic life

Contains a known or suspected reproductive toxin

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substances**

Chemical Name	EC No	CAS No	Weight-%	Classification according to Directive 67/548/EEC or 1999/45/EC	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Reg
Boric acid (H ₃ BO ₃)	EEC No. Present	10043-35-3	5.6	Repr.Cat.2; R60-61	Repr. 1B (H360FD)	No data avail
Ammonium hydroxide	EEC No. Present	1336-21-6	1.5	C; R34 N; R50	Skin Corr. 1B (H314) Aquatic Acute 1 (H400)	No data avail

For the full text of the R phrases mentioned in this Section, see Section 16

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**

If symptoms persist, call a physician.

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

Skin Contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. If symptoms persist, call a physician.
Ingestion	Do NOT induce vomiting. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person.

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

Most Important Symptoms and Effects Asthma-like and/ or skin allergy-like symptoms.

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

Notes to Physician Treat symptomatically

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

No information available

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus and full protective gear.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions

Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Use personal protective equipment. Do not get in eyes, on skin, or on clothing.

Advice for emergency responders

Ensure adequate ventilation.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so.

6.3. Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Take up mechanically and collect in suitable container for disposal.

6.4. Reference to other sections

See Section 12: ECOLOGICAL INFORMATION.

Section 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling**Technical measures/Precautions**

Ensure adequate ventilation.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use. Contaminated work clothing should not be allowed out of the workplace. Provide regular cleaning of equipment, work area and clothing.

7.2. Conditions for safe storage, including any incompatibilities**Technical measures/Precautions**

Keep container tightly closed in a dry and well-ventilated place.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters****Exposure Limits**

Chemical Name	EU		The United Kingdom		France	Spain		Germany		
Boric acid (H3BO3) 10043-35-3						STEL: 6 mg/m³ TWA: 2 mg/m³		TWA: 10 mg/m³ Ceiling / Peak: 10 mg/m³ TWA: 0.5 mg/m³		
Component	Italy		Portugal		The Netherlands		Finland		Denmark	
Boric acid (H3BO3) 10043-35-3 (5.6)			STEL: 6 mg/m³ TWA: 2 mg/m³							
Ammonium hydroxide 1336-21-6 (1.5)							STEL: 50 ppm STEL: 36 mg/m³			
Chemical Name	Sweden		Austria		Switzerland		Poland		Norway	Ireland
Boric acid (H3BO3) 10043-35-3					STEL: 10 mg/m³ TWA: 10 mg/m³					

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal protective equipment**Eye/Face Protection**

Tightly fitting safety goggles.

Hand Protection

Impervious gloves.

Skin and Body Protection

Impervious clothing. Boots. Chemical resistant apron.

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

Environmental Exposure Controls No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties****Physical state**

Liquid

Appearance

clear / colorless

Odor

Pungent

Property**Values**

pH VALUE

No data available

Melting Point/Range	No data available
Boiling Point/Range	100 °C
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Vapor Pressure	No data available
Vapor density	No data available
Relative Density	No data available
Specific Gravity	No data available
Water Solubility	Miscible
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive Properties	No information available
Oxidizing Properties	No information available
<u>Other information</u>	
VOC Content	No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical Stability

Stable under normal conditions.

Explosion Data

Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

10.3. Possibility of Hazardous Reactions

Hazardous Polymerization

Hazardous polymerization does not occur.

Hazardous Reactions

None under normal processing.

10.4. Conditions to Avoid

None known.

10.5. Incompatible materials

No information available

10.6. Hazardous Decomposition Products

No information available.

Section 11: TOXICOLOGY INFORMATION

11.1. Information on toxicological effects

Acute Toxicity

Product Information	Contains a known or suspected reproductive toxin. May impair fertility. May cause harm to the unborn child.
Inhalation	There is no data available for this product.
Eye Contact	There is no data available for this product.
Skin Contact	There is no data available for this product.
Ingestion	There is no data available for this product.

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	15,647.00 mg/kg
ATEmix (dermal)	35,750.00 mg/kg
ATEmix (inhalation-dust/mist)	2.86 mg/l
Unknown acute toxicity	0 % of the mixture consists of ingredient(s) of unknown toxicity.

Skin corrosion/irritation	No information available.
Eye damage/irritation	No information available.
Sensitization	No information available.
Mutagenic Effects	No information available.
Carcinogenic effects	No information available.
Reproductive Toxicity	Contains a known or suspected reproductive toxin. May impair fertility. May cause harm to the unborn child.
Developmental Toxicity	May cause harm to the unborn child.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Harmful to aquatic life with long lasting effects

Contains 0 % of components with unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Boric acid (H ₃ BO ₃)		1020: 72 h Carassius auratus mg/L LC50 flow-through	EC50 48 h 115 - 153 mg/L (Daphnia magna)
Ammonium hydroxide		8.2: 96 h Pimephales promelas mg/L LC50	EC50 48 h = 0.66 mg/L (water flea) EC50 48 h = 0.66 mg/L (Daphnia pulex)

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

Chemical Name	Partition coefficient
Boric acid (H ₃ BO ₃)	-0.757

12.4. Mobility in soil

Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues/Unused Products

Dispose of in accordance with federal, state and local regulations.

Contaminated Packaging

Do not re-use empty containers.

Other Information

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORT INFORMATION

IMDG

14.1. UN-No	Not regulated
14.2. Proper shipping name	Not regulated
14.3. Hazard Class	Not regulated
14.4. Packing Group	Not regulated
Description	Not applicable
14.5. Marine Pollutant	None
14.6. Special Provisions	None
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

RID

14.1. UN-No	Not regulated
14.2. Proper shipping name	Not regulated
14.3. Hazard Class	Not regulated
14.4. Packing Group	Not regulated
Description	Not applicable
14.5. Environmental hazard	None
14.6. Special Provisions	None

ADR

14.1. UN-No	Not regulated
14.2. Proper shipping name	Not regulated
14.3. Hazard Class	Not regulated
14.4. Packing Group	Not regulated

Description	Not applicable
14.5. Environmental hazard	None
14.6. Special Provisions	None

ICAO

14.1. UN-No	Not regulated
14.2. Proper Shipping Name	Not regulated
14.3. Hazard Class	Not regulated
14.4. Packing Group	Not regulated
Description	Not applicable
14.5. Environmental hazard	None
14.6. Special Provisions	None

IATA-DGR

14.1. UN-No	Not regulated
14.2. Proper shipping name	Not regulated
14.3. Hazard Class	Not regulated
14.4. Packing Group	Not regulated
Description	Not applicable
14.5. Environmental hazard	None
14.6. Special Provisions	None

Section 15: REGULATORY INFORMATION

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

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

International Inventories

All of the components in the product are on the following Inventory lists: U.S.A. (TSCA), Europe (EINECS/ELINCS/NLP), Canada (DSL/NDSL), Philippines (PICCS), Japan (ENCS), China (IECSC), Australia (AICS), Korea (ECL).

TSCA	Complies
EINECS/ELINCS	Complies
DSL/NDSL	Complies
PICCS	Complies
ENCS	Complies
IECSC	Complies
AICS	Complies
KECL	Complies

Legend

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

15.2. Chemical Safety Assessment

No information available

Section 16: OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R61 - May cause harm to the unborn child
R60 - May impair fertility
R34 - Causes burns
R50 - Very toxic to aquatic organisms

Full text of H-Statements referred to under section 3

H360FD - May damage fertility. May damage the unborn child

H314 - Causes severe skin burns and eye damage

H400 - Very toxic to aquatic life

Revision Date 10-Apr-2017

Reason for Revision Not applicable.

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet