

SAFETY DATA SHEET

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

1.1. Product identifier

Product Name AAB1

Product Description 1000 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
Inorganic Ventures
300 Technology Drive
Christiansburg, VA 24073
web: www.inorganicventures.com
E-mail Address info@inorganicventures.com

1.4. Emergency telephone number

Chemtrec 1-800-424-9300 (North America)
Chemtrec +1 703-741-5970 (International)

Europe	See above
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

GHS

Reproductive toxicity	Category 1B - (H360FD)
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2.2. Label Elements

Product identifier
Contains Boric acid (H₃BO₃)



Signal word
Danger

Hazard statements

H360FD - May damage fertility. May damage the unborn child

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

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P281 - Use personal protective equipment as required

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

2.3. Other information

No information available

SECTION 3: Composition/information on ingredients**3.1 Substances**

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Reg. No
Boric acid (H3BO3)	EEC No. Present	10043-35-3	0.6	Repr. 1B (H360FD)	No data available
Ammonium hydroxide	EEC No. Present	1336-21-6	0.1	Skin Corr. 1B (H314) Aquatic Acute 1 (H400)	No data available

Full text of H- and EUH-phrases: see section 16

SECTION 4: First aid measures**4.1. Description of first aid measures**

Inhalation	Remove to fresh air.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

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

Most Important Symptoms and Effects	Asthma-like and/ or skin allergy-like symptoms.
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4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically
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SECTION 5: Firefighting 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 pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions

Ensure adequate ventilation.

Advice for emergency responders

Ensure adequate ventilation.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. See Section 12 for additional Ecological Information.

6.3. Methods and material 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, placing in appropriate containers for disposal.

6.4. Reference to other sections

See Section 12: ECOLOGICAL INFORMATION.

SECTION 7: Handling and storage

7.1. Precautions for Safe Handling

Advice on safe handling

Ensure adequate ventilation.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

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	United Kingdom	France	Spain	Germany
Boric acid (H3BO3) 10043-35-3				STEL: 6 mg/m ³ TWA: 2 mg/m ³	TWA: 10 mg/m ³ Ceiling / Peak: 10 mg/m ³ TWA: 0.5 mg/m ³
Ammonium hydroxide 1336-21-6		TWA: 25 ppm TWA: 18 mg/m ³	TWA: 10 ppm TWA: 7 mg/m ³ STEL: 20 ppm STEL: 14 mg/m ³	STEL: 50 ppm STEL: 36 mg/m ³ TWA: 20 ppm TWA: 14 mg/m ³	TWA: 20 ppm TWA: 14 mg/m ³ Ceiling / Peak: 40 ppm Ceiling / Peak: 28 mg/m ³
Chemical name	Italy	Portugal	The Netherlands	Finland	Denmark
Boric acid (H3BO3)		STEL: 6 mg/m ³			

10043-35-3			TWA: 2 mg/m³				
Ammonium hydroxide 1336-21-6	TWA: 20 ppm TWA: 14 mg/m³ STEL: 50 ppm STEL: 36 mg/m³	STEL: 50 ppm STEL: 36 mg/m³ TWA: 20 ppm TWA: 14 mg/m³	STEL: 36 mg/m³ TWA: 14 mg/m³	TWA: 20 ppm TWA: 14 mg/m³ STEL: 50 ppm STEL: 36 mg/m³	TWA: 20 ppm TWA: 14 mg/m³		
Chemical name	Sweden	Austria	Switzerland	Poland	Norway	Ireland	
Boric acid (H3BO3) 10043-35-3			STEL: 1.8 mg/m³ TWA: 1.8 mg/m³			TWA: 2 mg/m³ STEL: 6 mg/m³	
Ammonium hydroxide 1336-21-6		STEL 50 ppm STEL 36 mg/m³ TWA: 20 ppm TWA: 14 mg/m³	STEL: 40 ppm STEL: 28 mg/m³ TWA: 20 ppm TWA: 14 mg/m³	STEL: 28 mg/m³ TWA: 14 mg/m³	STEL: 50 ppm STEL: 36 mg/m³	TWA: 20 ppm TWA: 14 mg/m³ STEL: 50 ppm STEL: 36 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 Wear safety glasses with side shields (or goggles).
Hand Protection Impervious gloves.
Skin and Body Protection Long sleeved clothing.
Respiratory Protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

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	Odorless
Property	Values
pH - VALUE 1	No data available
Melting point / melting range	No data available
Boiling point / boiling range	100 °C
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Vapor pressure @20 °C (kPa)	No data available
Vapor density	No data available
Relative Density	No data available
Specific gravity - VALUE 1	No data available
Water solubility	Miscible
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Dynamic viscosity - VALUE 1	No data available
Explosive Properties	No information available
Oxidizing Properties	No information available
Other information	
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: Toxicological information

11.1. Information on toxicological effects

Acute Toxicity

Product Information Product does not present an acute toxicity hazard based on known or supplied information.

Inhalation No data available.

Eye Contact No data available.

Skin Contact No data available.

Ingestion No data available.

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

ATEmix (inhalation-dust/mist) 501.000 mg/l

Unknown acute toxicity

0 % of the mixture consists of ingredient(s) of unknown toxicity.

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenic effects

Reproductive Toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

SECTION 12: Ecological information

12.1. Toxicity

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 0.26 - 4.6: 96 h Lepomis macrochirus mg/L LC50 1.5: 96 h Poecilia reticulata mg/L LC50 1.19: 96 h Poecilia reticulata mg/L LC50 static 0.73 - 2.35: 96 h Pimephales promelas mg/L LC50 5.9: 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) LC50 48 h = 25.4 mg/L (Daphnia magna)

		static 0.44: 96 h Cyprinus carpio mg/L LC50 1.17: 96 h Lepomis macrochirus mg/L LC50 flow-through	
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12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

Chemical name	Partition coefficient
Boric acid (H3BO3)	-0.757
Ammonium hydroxide	-1.14

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 reuse 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. Transport hazard class(es)	Not regulated
14.4. Packing Group	Not regulated
Description	Not applicable
14.5. Marine Pollutant	None
14.6. Special Provisions	None
No information available in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Transport 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. Transport hazard class(es)	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/NDL), Philippines (PICCS), Japan (ENCS), China (IECSC), Australia (AICS), Korea (ECL).

TSCA	Complies
EINECS/ELINCS	Complies
DSL/NDL	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/NDL - 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

R10 - Flammable

R23 - Toxic by inhalation

Full text of H-Statements referred to under section 3

H314 - Causes severe skin burns and eye damage

H360FD - May damage fertility. May damage the unborn child

H400 - Very toxic to aquatic life

Revision Date 27-Dec-2023

Reason for Revision Not applicable.

This material safety data sheet 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