SAFETY DATA SHEET

Creation Date 07-Apr-2009 **Revision Date** 14-Sep-2012 **Revision Number** 6

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

Product Identifier

Product Description: **Boric acid**
Reach Registration Number 01-2119486683-25
Cat No. **BP168-1; BP168-500**
Synonyms Boracic acid; Orthoboric acid.; Hydrogen borate

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

Recommended Use Laboratory chemicals.
Uses advised against No Information available

Details of the supplier of the safety data sheet

Company
Acros Organics BVBA
Janssen Pharmaceuticalaan 3a
2440 Geel, Belgium
E-mail address begel.sdsdesk@thermofisher.com

Emergency Telephone Number

For information in the US, call: 001-800-ACROS-01
For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99
Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300
CHEMTREC Phone Number, Europe: 001-703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Reproductive Toxicity	Category 1B

Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

Symbol(s) T - Toxic
R-phrase(s) R60 - May impair fertility
R61 - May cause harm to the unborn child

SECTION 2. HAZARDS IDENTIFICATION

Label Elements

Signal Word **Danger**

Hazard Statements

H360FD - May damage fertility. May damage the unborn child

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

P310 - Immediately call a POISON CENTER or doctor/ physician
P201 - Obtain special instructions before use
P308 + P313 - IF exposed or concerned: Get medical advice/ attention
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing

Other Hazards

No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC-No.	Weight %	CAS-No	67/548/EEC Classification	CLP Classification - Regulation (EC) No 1272/2008	REACH No.
Boric acid (H3BO3) 10043-35-3	EEC No. 233-139-2	>95	10043-35-3	Repr.Cat.2; R60-61	Repr. 1B (H360FD)	01-2119486683-25

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

SECTION 4. FIRST AID MEASURES

Description of first aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.

Ingestion Do not induce vomiting. Call a physician or Poison Control Center immediately.

Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Get medical attention immediately if symptoms occur.
Notes to Physician	Treat symptomatically

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media
Substance is nonflammable; use agent most appropriate to extinguish surrounding fire..

Extinguishing media which must not be used for safety reasons
No information available.

Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors.

Advice for fire-fighters

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

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Do not get in eyes, on skin, or on clothing.

Environmental precautions

Should not be released into the environment.

Methods and material for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Use only under a chemical fume hood. Wear personal protective equipment. Avoid dust formation. Do not get in eyes, on skin, or on clothing. Do not breathe dust.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place.

Specific End Uses

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

Component
Boric acid (H3BO3)

European Union	The United Kingdom	France	Belgium	Spain
			TWA: 2 mg/m³ 8 uren STEL: 6 mg/m³ 15 minuten	

Component
Boric acid (H3BO3)

Italy	Germany	Portugal	The Netherlands	Finland
	MAK: 10 mg/m³ 8 Stunden. inhalable fraction Peak: 10 mg/m³ TWA: 0.5 mg/m³ 8 Stunden. exposure factor 2	STEL: 6 mg/m³ 15 minutos TWA: 2 mg/m³ 8 horas		

Component
Boric acid (H3BO3)

Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
TWA: 5.0 mg/m³				

Component
Boric acid (H3BO3)

Latvia	Lithuania	Luxembourg	Malta	Romania
TWA: 10 mg/m³	TWA: 10 mg/m³			

Component
Boric acid (H3BO3)

Russia - TWA	Slovak Republic	Slovenia	Sweden	Turkey
MAC: 10 mg/m³				

Biological limit values This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

Exposure controls

Engineering Measures Use only under a chemical fume hood Ensure that eyewash stations and safety showers are close to the workstation location

Personal protective equipment

Eye Protection Safety glasses with side-shields

Hand Protection Protective gloves

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls No information available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Powder, Solid
Appearance	White
odor	odorless
pH	3.8-4.8 33 g/l aq.sol.
Vapor Pressure	2.7 mbar @ 20 °C
Vapor Density	No information available.
Boiling Point/Range	No information available.
Melting Point/Range	169°C / 336.2°F
Decomposition temperature	100 °C
Flash Point	No information available.
Autoignition Temperature	No information available.
Evaporation Rate	No information available.
Water Solubility	49.5 g/l (20°C)
Molecular Formula	H3 B O3
Molecular Weight	61.83

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability

Moisture sensitive.

Possibility of Hazardous Reactions

Hazardous Polymerization	No information available
Hazardous Reactions .	No information available.

Conditions to Avoid

Incompatible products, Excess heat, Avoid dust formation, Exposure to moisture.

Incompatible Materials

Strong oxidizing agents, Strong bases.

Hazardous Decomposition Products

Carbon monoxide (CO). Carbon dioxide (CO_2). Oxides of boron.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

SECTION 11. TOXICOLOGICAL INFORMATION

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation (Dust)
Boric acid (H3BO3)	2660 mg/kg (Rat)	2000 mg/kg (Rabbit)	>2.03 mg/L (Rat) 4 h

Chronic Toxicity

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen

Sensitization No information available.
Mutagenic Effects Mutatagenic effects have occured in microorganisms.
Reproductive Effects Adverse reproductive effects have occurred in humans.
Developmental Effects May cause harm to the unborn child Developmental effects have occurred in experimental animals
Teratogenicity Teratogenic effects have occurred in experimental animals.
Target Organs Liver Kidney Eyes Skin Central nervous system (CNS) Blood Gastrointestinal tract (GI) Reproductive System
Other Adverse Effects The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information
Endocrine Disruptor Information None known

SECTION 12. ECOLOGICAL INFORMATION

Toxicity
Ecotoxicity effects Do not empty into drains

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Boric acid (H3BO3)		Gambusia affinis: LC50: 5600 mg/L/96h		115 - 153 mg/L EC50 48 h

Persistence and degradability
No information available
Bioaccumulative potential
No information available.

Component	log Pow
Boric acid (H3BO3)	-0.757

Mobility in soil
No information available.
Results of PBT and vPvB assessment
Other adverse effects
No information available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from Residues / Unused Products Dispose of in accordance with local regulations

Contaminated Packaging Empty containers should be taken to local recyclers for disposal

SECTION 14. TRANSPORT INFORMATION

IMDG/IMO Not regulated

ADR Not regulated

IATA Not regulated

SECTION 15. REGULATORY INFORMATION

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

International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Boric acid (H3BO3)	233-139-2	-		X	X	-	X	X	X	X	X

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
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
CHINA - China Inventory of Existing Chemical Substances
AICS - Inventory of Chemical Substances
KECL - Existing and Evaluated Chemical Substances

Chemical Safety Assessment

SECTION 16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3
R60 - May impair fertility
R61 - May cause harm to the unborn child

Revision Date 14-Sep-2012
Revision Summary

Reason for revision (M)SDS sections updated, 1, 3.
This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006
Disclaimer
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End of Safety Data Sheet