



SAFETY DATA SHEET

Zinc Borate ZB-467

Version: 1.0

Revision Date: 03/31/2015

Print Date: 04/22/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Zinc Borate ZB-467

Product Use Description: Fire retardant
Additive

Company: Chemtura Corporation
199 Benson Road
Middlebury, CT
06749
United States of America

Telephone: (US) +1 866-430-2775

Emergency telephone number: CHEMTREC: (24 hours) 800-424-9300

For additional emergency telephone numbers see section 16 of the Safety Data Sheet.

Prepared by Product Safety Department
(US) +1 866-430-2775

MSDSRequest@chemtura.com

Recommended use of the chemical and restrictions on use

Recommended use : Fire retardant, Additive

Restrictions on use : Restricted to professional users.

SECTION 2. HAZARDS IDENTIFICATION

Form	powder
Colour	white
Odour	odourless

GHS Classification

Combustible dust :
Reproductive toxicity : Category 1B
Acute aquatic toxicity : Category 2
Chronic aquatic toxicity : Category 1

GHS Label element

Signal word : **Danger**

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Hazard pictograms



Hazard statements

: May form combustible dust concentrations in air.
H360 May damage fertility or the unborn child.
H410 Very toxic to aquatic life with long lasting effects.

Other hazards

: None

Precautionary statements

: **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P273 Avoid release to the environment.
P281 Use personal protective equipment as required.
Response:
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P391 Collect spillage.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Carcinogenicity:
IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	Concentration (%)
Boric acid, zinc salt	1332-07-6	>= 90 - <= 100 %
boric acid	10043-35-3	>= 1 - < 5 %

SECTION 4. FIRST AID MEASURES



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| If inhaled | : Move to fresh air.
Obtain medical attention. |
| In case of skin contact | : Wash off immediately with plenty of water for at least 15 minutes.
If symptoms persist, call a physician. |
| In case of eye contact | : Rinse thoroughly with plenty of water, also under the eyelids. |
| If swallowed | : If conscious, make the victim drink the following:
Drink 1 or 2 glasses of water.
Get medical attention immediately. |
| Most important symptoms and effects, both acute and delayed | : irritant effects |
| Notes to physician | : For specialist advice physicians should contact the Poisons Information Service. |

SECTION 5. FIREFIGHTING MEASURES

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| Suitable extinguishing media | : Any |
| Specific hazards during firefighting | : Burning produces irritant fumes.
Exposure to decomposition products may be a hazard to health. |
| Special protective equipment for firefighters | : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

- | | |
|---|--|
| Personal precautions, protective equipment and emergency procedures | : Evacuate personnel to safe areas.
Use personal protective equipment. |
| Environmental precautions | : Do not flush into surface water or sanitary sewer system. |
| Methods and materials for containment and cleaning up | : Pick up and arrange disposal without creating dust. Clean contaminated surface thoroughly. |

SECTION 7. HANDLING AND STORAGE

- | | |
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| Advice on safe handling | : Handle in accordance with good industrial hygiene and safety practice. |
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Wear personal protective equipment.
Avoid contact with skin, eyes and clothing.
Avoid dust formation.
Avoid breathing dust.

Conditions for safe storage : Keep in a dry, cool and well-ventilated place.
Keep container tightly closed.
Protect from contamination.

Materials to avoid : Strong acids and strong bases, Strong oxidizing agents,
Reducing agents, Alkali metals

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
boric acid	10043-35-3	TWA (Inhalable fraction)	2 mg/m3	ACGIH
		STEL (Inhalable fraction)	6 mg/m3	ACGIH
		TWA (Inhalable fraction)	2 mg/m3	ACGIH
		STEL (Inhalable fraction)	6 mg/m3	ACGIH

Engineering measures : Effective exhaust ventilation system
Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.

Hand protection
Remarks : Impervious gloves

Eye protection : Safety glasses with side-shields

Skin and body protection : Lightweight protective clothing

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES



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Appearance	: powder
Color	: white
Odor	: odourless
Odour Threshold	: No data available
pH	: Not applicable
Melting point/range	: No data available
Boiling point/boiling range	: Not applicable
Evaporation rate	: No data available
Flash point	: Not applicable
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: Not applicable
Relative density	: 2.68
Density	: No data available
<u>Solubility(ies)</u>	
Water solubility	: 1 g/l No data available
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Thermal decomposition	: > 500 °C
Viscosity	
Viscosity, kinematic	: Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Hazardous polymerisation does not occur.
Conditions to avoid	: Not applicable
Incompatible materials	: Strong acids and strong bases Strong oxidizing agents



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Reducing agents
Alkali metals

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity (Product) : LD50: > 5,000 mg/kg
Species: Rat

Acute inhalation toxicity
boric acid (Component) : LC50: > 2.0 mg/l
Species: Rat

Acute dermal toxicity
(Product) : LD50: > 5,000 mg/kg
Species: Rabbit

Eye irritation (Product) : Remarks: May cause eye irritation.
Not classified due to data which are conclusive although insufficient for classification.

Aspiration toxicity (Product) : No aspiration toxicity classification

Further information (Product) : Incomplete toxicological data are available for this product.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish (Product) : LC50: 2.61 mg/l
Exposure time: 96 h
Species: Pimephales promelas (fathead minnow)

Toxicity to daphnia and other
aquatic invertebrates : EC50: 0.068 mg/l
(Product) Species: Daphnia magna (Water flea)

Toxicity to algae
Boric acid, zinc salt : EC50: 0.12 mg/l
(Component) Exposure time: 72 h
Species: Algae



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Elimination information (persistence and degradability)

Bioaccumulation (Product) : Remarks:
No data available

Mobility (Product) : Remarks:
No data available

Biodegradability (Product) : Result: No data available

(Product) : Result: No data available

Further information on ecology

Ecotoxicology Assessment

Results of PBT assessment (Product)

This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of as hazardous waste in compliance with local and national regulations.
Dispose of wastes in an approved waste disposal facility.

SECTION 14. TRANSPORT INFORMATION

DOT

UN number : 3077
Description of the goods : Environmentally hazardous substances, solid, n.o.s.
(Boric acid, zinc salt)
Class : 9
Packing group : III
Environmentally hazardous : yes
Boric acid, zinc salt

IATA

UN number : 3077
Description of the goods : Environmentally hazardous substance, solid, n.o.s.
(Boric acid, zinc salt)
Class : 9



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Packing group : III
Environmentally hazardous : no

IMDG

UN number : 3077
Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S.
(Boric acid, zinc salt)
Class : 9
Packing group : III
EmS Number 1 : F-A
EmS Number 2 : S-F
Marine pollutant : yes
Boric acid, zinc salt

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Boric acid, zinc salt	1332-07-6	1000	1000

SARA304 Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Fire Hazard
Chronic Health Hazard

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

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:
Boric acid, zinc salt 1332-07-6

California Prop 65 This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

US.TSCA On TSCA Inventory
DSL All components of this product are on the Canadian DSL.
AICS On the inventory, or in compliance with the inventory
NZIoC Not in compliance with the inventory
ENCS On the inventory, or in compliance with the inventory
KECI On the inventory, or in compliance with the inventory
PICCS On the inventory, or in compliance with the inventory
IECSC On the inventory, or in compliance with the inventory



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SECTION 16. OTHER INFORMATION

Further information

Other Emergency Phone Number

<u>Latin America:</u>	Brazil	+55 113 711 9144
	All other countries	+44 (0) 1235 239 670
<u>Mexico:</u>		+52 555 004 8763

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.