

# SAFETY DATA SHEET

Boradicate™ Insecticide

SDS # : 6604-1-A

Revision date: 2020-03-16

Format: NA

Version 2.06



## 1. PRODUCT AND COMPANY IDENTIFICATION

### Product Identifier

**Product Name** Boradicate™ Insecticide

### Other means of identification

**Product Code(s)** 6604-1-A

**Active Ingredient(s)** Orthoboric Acid (Boric Acid)

**PCP #** 30533

### Recommended use of the chemical and restrictions on use

**Recommended Use:** Insecticide

**Restrictions on Use:** Use as recommended by the label.

### Supplier Address

FMC Corporation  
2929 Walnut Street  
Philadelphia, PA 19104  
800 / 321-1FMC (1362) (General Information)  
SDS-info@fmc.com (E-Mail General Information)

### Emergency telephone number

Medical Emergencies :  
1 800 / 331-3148 (U.S.A. & Canada)  
1 651 / 632-6793 (All Other Countries - Collect)

For leak, fire, spill or accident emergencies, call:  
1 800 / 424-9300 (CHEMTREC - U.S.A.)  
1 703 / 741-5970 (CHEMTREC - International)  
1 703 / 527-3887 (CHEMTREC - Alternate)

## 2. HAZARDS IDENTIFICATION

### Classification

#### OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Reproductive toxicity	Category 2

### GHS Label elements, including precautionary statements

## EMERGENCY OVERVIEW

### Warning

**Hazard Statements**

H332 - Harmful if inhaled

H361 - Suspected of damaging fertility or the unborn child

**Precautionary Statements - Prevention**

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

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P280 - Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response**

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

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

**Precautionary Statements - Storage**

P405 - Store locked up

**Precautionary Statements - Disposal**

P501 - Dispose of contents/container according to label directions

**Hazards not otherwise classified (HNOC)**

No hazards not otherwise classified were identified.

**Other Information**

No information available.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical name	CAS-No	Weight %
Boric acid	10043-35-3	99

**4. FIRST AID MEASURES****Eye Contact**

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.

**Skin Contact**

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a poison control center or doctor for further treatment advice.

**Inhalation**

Move to fresh air. If person is not breathing, contact emergency medical services, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a physician or poison control center immediately.

**Ingestion**

Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not induce vomiting or give anything by mouth to an unconscious person.

**Most important symptoms and effects, both acute and delayed**

Central nervous system effects.

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

Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Small Fire</b>	Dry chemical. Carbon dioxide (CO <sub>2</sub> ).
<b>Large Fire</b>	Water spray. Foam.
<b>Unsuitable extinguishing media</b>	Avoid heavy hose streams.
<b>Specific Hazards Arising from the Chemical</b>	Not combustible
<b>Hazardous Combustion Products</b>	Thermal decomposition can lead to release of irritating and toxic gases and vapors, boric anhydride.
<b><u>Explosion data</u></b>	
<b>Sensitivity to Mechanical Impact</b>	No information available.
<b>Sensitivity to Static Discharge</b>	No information available.
<b>Protective equipment and precautions for firefighters</b>	Wear self-contained breathing apparatus and protective suit. Isolate fire area. Evaluate downwind.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Isolate and post spill area. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8.
<b>Other</b>	For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.
<b>Environmental Precautions</b>	Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains.
<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Sweep up and shovel into suitable containers for disposal. Clean and neutralize spill area, tools and equipment by washing with water and soap. Absorb rinsate and add to the collected waste. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal. Reference to other sections.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep/store only in original container.
<b>Packaging material</b>	Must only be kept in original packaging.
<b>Incompatible products</b>	Strong reducing agents. Bases. Metals. Strong reducing agents, Bases Metals

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical name	ACGIH TLV	OSHA PEL	NIOSH	Mexico
Boric acid (10043-35-3)	STEL: 6 mg/m <sup>3</sup> TWA: 2 mg/m <sup>3</sup>	-	-	Mexico: TWA 2 mg/m <sup>3</sup>
Chemical name	British Columbia	Quebec	Ontario TWAEV	Alberta
Boric acid (10043-35-3)	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>	-	TWA: 2 mg/m <sup>3</sup> inhalable  STEL: 6 mg/m <sup>3</sup>	-

**Appropriate engineering controls**

**Engineering measures** Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

**Skin and Body Protection** Wear long-sleeved shirt, long pants, socks, and shoes.

**Hand Protection** Use protective gloves made of chemical materials such as nitrile or neoprene. Wash the outside of gloves with soap and water before reuse. Check regularly for leaks.

**Respiratory Protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene measures** Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Remove and wash contaminated clothing before re-use. Launder work clothing separately from regular household laundry.

**General information** If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

Appearance	Powder White
Physical State	Dry powder
Color	White
Odor	Odorless
Odor threshold	No information available
pH	No information available
Melting point/freezing point	171 °C
Boiling Point/Range	No information available
Flash point	Not applicable
Evaporation Rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Relative density	No information available
Specific gravity	No information available
Water solubility	Partly soluble
Solubility in other solvents	No information available

Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	No information available
Explosive properties	No information available
Oxidizing properties	No information available
Molecular weight	No information available
Bulk density	No information available

## 10. STABILITY AND REACTIVITY

Reactivity	None under normal use conditions.
Chemical Stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	Reacts with strong reducing agents forming flammable hydrogen gas. Reacts as a weak acid which may cause corrosion of base metals.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Heat, flames and sparks
Incompatible materials	Strong reducing agents. Bases. Metals.
Hazardous Decomposition Products	None known.

## 11. TOXICOLOGICAL INFORMATION

### Product Information

LD50 Oral	3160 mg/kg (rat) Boric acid
LD50 Dermal	> 2000 mg/kg (rat) Boric acid
LC50 Inhalation (dust)	> 2.03 mg/L (4-hr) (rat) Boric acid
Serious eye damage/eye irritation	Non-irritating.
Skin corrosion/irritation	Non-irritating.
Sensitization	Not expected to be sensitizing based on the components.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation (vapor)
Boric acid (10043-35-3)	>2600 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 2.12 mg/L ( Rat ) 4 h

### Information on toxicological effects

Symptoms	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
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### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic toxicity	Contains a known or suspected reproductive toxin.
Mutagenicity	Not mutagenic
Carcinogenicity	Not recognized as carcinogenic by Research Agencies (IARC, NTP, OSHA, ACGIH).
Reproductive toxicity	Animal studies have shown that ingestion of large amounts of Borates over prolonged periods of time cause a decrease in sperm production and testicle size in males.
Developmental toxicity	Animal studies have shown that ingestion of large amounts of Borates produced developmental effects in fetuses of pregnant animals.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified.
Target organ effects	Central Nervous System (CNS), Gastrointestinal tract (GI), Reproductive System
Aspiration hazard	No information available.

Legend:

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

The environmental impact of this product has not been fully investigated

Boric acid (10043-35-3)				
Active Ingredient(s)	Duration	Species	Value	Units
	48 h LC50	Daphnia magna	133	mg/L
	96 h EC50	Algae	24	mg/L

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Boric acid 10043-35-3		72 h LC50: = 1020 mg/L (Carassius auratus) flow-through	48 h EC50: 115 - 153 mg/L (Daphnia magna)

**Persistence and degradability** Boron is naturally occurring and ubiquitous in the environment. The boric acid decomposes in the natural environment to borate.

**Bioaccumulation** No information available.

**Mobility** Boric acid is soluble in water.

## 13. DISPOSAL CONSIDERATIONS

**Waste disposal methods** Improper disposal of excess pesticide, spray mixture, or rinsate is prohibited. If these wastes cannot be disposed of by use according to label instructions, contact appropriate disposal authorities for guidance. Proper personal protective equipment, as described in Sections 7 and 8, must be worn while handling materials for waste disposal.

**Contaminated containers and packages** Containers must be disposed of in accordance with local, state and federal regulations. Refer to the product label for container disposal instructions.

## 14. TRANSPORT INFORMATION

**DOT** This material is not a hazardous material as defined by U.S. Department of Transportation at 49 CFR Parts 100 through 185.

**TDG** Not regulated

**ICAO/IATA** Not regulated

**IMDG/IMO** Not regulated

## 15. REGULATORY INFORMATION

### U.S. Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic health hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

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### Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

### FIFRA Information

*This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:*

#### ATTENTION

*Nocif en cas d'ingestion. Provoque une irritation modérée des yeux*

## US State Regulations

### California Proposition 65

This product does not contain any Proposition 65 chemicals.

### U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

## International Inventories

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINC S (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Boric acid 10043-35-3	X	X	X	X	X	X	X	X

### CANADA

This Safety Data Sheet is for a pesticide product registered by the Pest Management Regulatory Agency (PMRA), and is therefore also subject to certain requirements under Canadian pesticide laws, including the Pest Control Products Act (PCPA). These requirements differ from the classification criteria and hazard information required by the Hazardous Product Regulations (HPR) and WHMIS 2015 for safety data sheets, and for workplace labels of non-pesticide chemicals. The following information is determined by PMRA.

The approved pest control product label (the label), under the Pest Control Products Act, needs to be followed at all times and in cases where there are any discrepancies between the approved label and an SDS for that product it is the label information that prevails.

## 16. OTHER INFORMATION

NFPA	Health Hazards 1	Flammability 0	Instability 0	Special Hazards -
HMIS	Health Hazards 1	Flammability 0	Physical hazard 0	Personal Protection X

\*Indicates a chronic health hazard.

### NFPA/HMIS Ratings Legend

Severe = 4; Serious = 3; Moderate = 2; Slight = 1; Minimal = 0

Revision date: 2020-03-16  
Reason for revision: SDS sections updated

**Disclaimer**

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.

**Prepared By:**

FMC Corporation

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**End of Safety Data Sheet**