



Material Safety Data Sheet

FOR EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL:
CHEMTREC 1-800-424-9300

Section 1—Chemical Product and Company Identification

| | | |
|---|---|-----------------------|
| Product Name: | Boll'd® | EPA Reg. No. 9779-349 |
| Common Name: | Ethephon | |
| Chemical Description: | 2-(Chloroethyl) phosphonic acid | |
| Manufacturer's Name: WINFIELD SOLUTIONS, LLC P. O. Box 64589 St. Paul, MN 55164-0589 | Medical Emergency Telephone Number: 1-877-424-7452 MSDS Revision Date: 08/08/2014 Supersedes document dated 05/05/2010 | |

Section 2—Hazards Identification

Emergency Overview: Clear to slightly hazy liquid with mild odor. **CORROSIVE!** Causes eye and skin damage. Product may cause oxygen deficiency in enclosed spaces; follow all OSHA regulations pertaining to enclosed space entry. See health effects below.

CAUTION: Keep out of reach of children.

Route(s) of Entry: Eyes, Inhalation, Skin, and Ingestion.

Health Hazards (Acute and Chronic):

Inhalation: May cause irritation of the respiratory tract. May include choking coughing, burning of the throat, nausea, vomiting, dizziness, drowsiness, pinpoint pupils and blurred vision. High concentrations may be fatal. Chronic exposure may cause pulmonary edema and lung injury.

Eyes: Corrosive to eyes. May cause eye burns and permanent tissue damage. Symptoms include tearing, redness, burning and swelling.

Skin: May lead to rapid onset of nausea, vomiting, abdominal pain, pinpoint pupils, and blurred vision. Large exposures may be fatal.

Ingestion: Harmful if swallowed. May cause severe irritation of the mouth, throat, esophagus and stomach with severe abdominal and chest pain, nausea, vomiting, diarrhea, dizziness, drowsiness, weakness, pinpoint pupils and blurred vision.

Medical Conditions Generally Aggravated by Exposure:

Skin contact may aggravate preexisting skin conditions. Inhalation of mists may aggravate preexisting respiratory conditions.

Section 3—Composition Information on Ingredients

| Ingredient | % (wt) | CAS reg. # |
|-------------------|--------|------------|
| Ethephon | 55.4% | 16672-87-0 |
| Formulation aids* | 44.6% | |
| | | |

*Trade secret information available as provided in 29 CFR 1910.1200(i)

NFPA HAZARD RATING:

| | | | |
|---|----------|---|--------------|
| 0 | Least | | |
| 1 | Slight | 2 | Health |
| 2 | Moderate | 0 | Flammability |
| 3 | High | 0 | Reactivity |
| 4 | Severe | | |

Section 4—First Aid Measures

Inhalation: Remove person to fresh air and assist breathing as needed. Seek medical attention immediately.

Ingestion: Seek medical attention or call a poison control center immediately. If patient is alert and not convulsing, give 1-2 glasses of water. Do not induce vomiting.

Eyes: Flush with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. Seek medical attention.

Skin: Remove contaminated clothing and wash before re-using. Flush skin with water, and then wash with soap and water. Seek medical attention if skin becomes irritated.

Note to Physician: Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Section 5—Fire and Explosion Hazard Data

Extinguishing Media: Use carbon dioxide or dry chemical for small fires and water fog or foam (alcohol, polymer or ordinary) for large fires. Water stream may spread flames.

Special Fire Fighting Procedures: Wear self-contained breathing apparatus and full bunker gear. Smoke and fumes from fire may contain hazardous components. Contain water to prevent entry into water supplies.

Hazardous Combustion Products: Corrosive and toxic gases may be formed in a fire situation. Carbon monoxide and other asphyxiates may form as well.

Unusual Fire and Explosion Hazards: Material will not burn. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Section 6—Accidental Release Measures

Small Spills: Clean-up personnel should protect against mist inhalation and skin contact. Avoid generating mists. Spills should be cleaned up immediately to prevent spreading.

Large Spills: Clean-up personnel should protect against mist inhalation and skin contact. Avoid generating mist.

Containment: Do not release into sewers or waterways. Dike spills to prevent contamination to water supplies. Contain spills and absorb liquids by covering with clay or other absorbent material. Vacuum, scoop, or sweep up waste and place in a container for disposal. Clean area using a solution of water and detergent. Collect and contain wash water for disposal.

Section 7—Precautions for Safe Handling and Use

Precautions to Be Taken in Handling and Storage: Store in cool, dry areas away from children, feed and food products and sources of heat. Immediately clean up spills that occur during handling or storage. Protect from freezing. Keep containers tightly sealed when not in use.

Other Precautions: Consult Local, State, and Federal regulations pertaining to storage and disposal.

Section 8—Control Measures/Personal Protection

Respiratory Protection: Seek professional advice prior to respirator selection and use. Use NIOSH/MSHA approved respirator for organic vapors. Use positive pressure contained breathing apparatus where emergency conditions or where exposure limits are exceeded.

Ventilation: **Local Exhaust:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred.

Protective Gloves: Wear chemically protective gloves.

Eye Protection: Wear protective eyeglasses or chemical safety goggles. Contact lenses are not eye protective devices.

Other Protective Clothing or Equipment: Wear chemically protective boots, aprons, and gauntlets to prevent prolonged or repeated skin contact.

***See product label for full listing of required Personal Protective Equipment to be used when handling this product.**

Work/Hygienic Practices: Never eat, drink, nor smoke in work areas. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9—Physical/Chemical Characteristics

| | | | |
|------------------------------------|--|---|------------------|
| Physical State: | Liquid | Specific Gravity (H₂O=1): | 1.30 |
| Vapor Pressure (mm Hg): | 0.000061 mmHg @ 20°C (Ethephon) | Freezing Point: | < -40°C (<-40°F) |
| Vapor Density (Air=1): | Not determined | Boiling Point: | Not determined |
| Solubility in Water (wt %): | Soluble | pH: | < 2 |
| Appearance and odor: | Clear to slightly hazy yellow liquid with mild odor | Flash Point: | Not applicable |

Section 10—Reactivity Data

Stability: Product stable at room temperature in closed containers under normal storage and handling conditions.

Chemical Incompatibilities: Strong oxidizers and bases. Corrosive to metals such as iron, aluminum and copper.

Conditions to Avoid: Temperatures above 167°F (75°C)

Hazardous Decomposition Products: Hydrogen cyanides, hydrogen chloride, nitrogen oxides. Reaction with bases evolves ethylene gas.

Hazardous Polymerization: Will not occur.

Section 11—Toxicological Information

| | |
|---------------------------|--|
| Eye Effects: | Corrosive |
| Skin Effects: | LD50 = 1740 mg/kg (Rabbits); Severe irritation |
| Acute Inhalation Effects: | LC50 >4.99 mg/L (4 hour) (Rats) |
| Acute Oral Effects: | LD50 = 3270 mg/kg (Rats) |
| Chronic Effects: | Prolonged or repeated overexposure may cause red and irritated eyes and skin. May cause dermatitis. May cause pulmonary edema and lung injury. |
| Mutagenicity: | Not determined |
| Teratogenicity: | Not determined |
| Carcinogenicity: | NTP: Not listed IARC: Not listed OSHA: Not listed |

Section 12—Ecological Information

Do not apply directly to water, or to areas where surface water is present. Do not contaminate water when disposing of equipment washwaters. Do not contaminate water used for irrigation or domestic purposes.

Fish Toxicity: 96 hour LC50, Rainbow Trout – 350 mg/L; 96 hour LC50, Bluegill – 300 mg/L
Avian Toxicity: Oral LD50, Bobwhite quail – 1,000 mg/kg
Bee Toxicity: Not toxic

Section 13—Disposal Considerations

Waste: Dispose of in accordance with applicable Federal, state and local laws and regulations.
Container: Triple rinse (or equivalent) the empty containers. Then offer for recycling or reconditioning.
RCRA characteristics: D002 (Corrosive)

Section 14—Transport Information

UN3265, Corrosive liquid, acidic, organic, n.o.s. (Ethepon), 8, PG III
Emergency Response Guide #: 153

Section 15—Regulatory Information

TSCA Inventory: Not determined
SARA Title III, Section 302: None listed

| | | |
|----------------------------------|----------------|--------------|
| SARA Title III, Section 311/312: | Immediate: Yes | Delayed: Yes |
| Sudden Release of Pressure: No | Fire: No | Reactive: No |

SARA Title III, Section 313: None listed
CERCLA: None listed
PROPOSITION 65: WARNING: This product may contain chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

Section 16—Other

Disclaimer: The information presented herein is based on available data from reliable sources and is correct to the best of Winfield Solutions' knowledge. Winfield Solutions, LLC makes no warranty, express nor implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions. We disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.

Sections Revised: 1