



Safety Data Sheet

Report Date 13-Apr-15

Page 1 of 4

1. Identification

Product Name : BUFFER XTRA STRENGTH
Synonyms : Buffer XS
Product Use : Buffering/Conditioning Agent for Pesticide Sprays
Manufacturer/Supplier : Helena Chemical Company
Address : 225 Schilling Blvd. Collierville, TN 38017
General Information : 901-761-0050
Transportation Emergency Number : CHEMTREC:800-424-9300

2. Hazard Identification



Signal Word : Danger
Skin Irritation : Causes severe skin burns.
Eye Irritation : Causes serious eye damage.
Acute Toxicity Oral : LD50 (rat) 1,500 mg/kg (phosphate ester)
Acute Toxicity Dermal : LD50 (rabbit) 2,500 mg/kg (phosphate ester)

Hazard Categories : Oral Toxicity - 4; Dermal/Inhalation Toxicity - 5/5; Eye Irritation - 1; Skin Irritation - 1B

Hazard Statement : Harmful if swallowed
May be harmful in contact with skin
Causes serious eye damage
Causes severe skin burns and eye damage
May be harmful if inhaled

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Proprietary blend of Alkyl Aryl Polyethoxy Ethanol Phosphates and Organic Phosphatic Acids	Proprietary	50.00
Components ineffective as Buffer or Conditioner	Proprietary	50.00

4. First Aid Measures

Eye : Rinse cautiously with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin : Take off contaminated clothing immediately. Rinse skin with water. Get medical attention if irritation develops or persists. Launder contaminated clothing before reuse.

Inhalation : Move person to fresh air. If not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

Ingestion : Call a poison control center or doctor immediately. Rinse mouth. Do not induce vomiting. Do not give anything by mouth to an unconscious person.

Indication of Immediate Medical Attention and Special Treatment Needed : Treat symptomatically.



Safety Data Sheet

Report Date 13-Apr-15

Page 2 of 4

5. Fire Fighting Measures

- Extinguishing Media** : Use alcohol foam, dry chemical, carbon dioxide or water to extinguish fires.
- Specific Hazards Arising from the Chemical** : May produce hazardous fumes or hazardous decomposition products under fire conditions.
- Special Fire Fight Proc** : Wear self-contained breathing apparatus and full protective clothing.

6. Accidental Release Measures

- Personal Precautions** : Keep unprotected and unnecessary personnel out of spill area. Use appropriate protective equipment.
- Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Eyewash station and emergency shower must be available in work area. Use NIOSH-approved respirator with acid gas cartridge if TLV is exceeded.
- Emergency Procedures** : Isolate spill area.
- Methods and Materials for Containment and Cleanup** : Cover the spill with an absorbent, such as clay, sand or sawdust. Collect and place in suitable chemical waste containers for proper disposal.

7. Handling and Storage

- Precautions for Safe Handling** : Keep out of reach of children. Keep container tightly closed. Do not allow water to be introduced into the contents of this container. Do not contaminate water sources by runoff from cleaning of equipment, disposal of equipment wash waters or spray waste.
- Conditions for Safe Storage** : Store in original container only. Do not store near heat or open flame. Do not store with oxidizing agents.

8. Exposure Controls / Personal Protection

- TLV/PEL** : 3 mg/m3 (phosphoric acid)
- Appropriate Engineering Controls** : Local exhaust sufficient.
- Personal Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Eyewash station and emergency shower must be available in work area. Use NIOSH-approved respirator with acid gas cartridge if TLV is exceeded.

9. Physical and Chemical Properties

- Odor/Appearance** : Clear, light yellow liquid; surfactant odor.
- Flash Point, °F** : >200 Degrees F.
- Boiling Point, °F** : >200 Degrees F.
- Melting Point(Freezing point), °C** : Not determined
- Vapor Pressure, mm Hg @ 20 °C** : Not determined
- Vapor Density** : Not determined
- Solubility in Water** : Soluble
- Molecular Formula** : Not applicable, formulated mixture.
- Density, g/mL @ 25 °C** : 1.175-1.190
- Evaporation Rate(Butyl Acetate = 1)** : No information found
- Octanol/Water Partition Coefficient** : No information found
- pH** : 1.4



Safety Data Sheet

Report Date 13-Apr-15

Page 3 of 4

Flammable Limits (approximate volume % in air) : No information found
Auto-ignition Temperature : Not determined
Decomposition temperature : No information found

10. Stability and Reactivity

Reactivity : No information found
Chemical Stability : Stable
Hazardous Decomposition Products : When heated to decomposition, product will produce oxides of phosphorus.
Hazardous Polymerization : Will not occur
Conditions to Avoid : None currently known.
Incompatible Materials : Do not mix with alkali, cyanides, sulfides, aluminum, magnesium, zinc and chlorine releases.

11. Toxicological Information

Acute Toxicity (Oral LD50) : 1,500 mg/kg (rat) for phosphate ester. Harmful if swallowed.
Acute Toxicity (Dermal LD50) : 2,500 mg/kg (rabbit) for phosphate ester. May be harmful in contact with skin.
Acute Toxicity Inhalation LC50 : No inhalation toxicity data. May cause respiratory irritation.
Likely Routes of Exposure : Eyes, skin, ingestion
Skin Irritation : Causes severe skin burns.
Eye Irritation : Causes serious eye damage.
Skin Sensitization : Not a skin sensitizer.
Carcinogenic : May contain residual (<100 ppm) concentrations of ethylene oxide (causes tumors in lab animals).
Chronic Effects : Repeated skin contact may cause a persistent irritation or dermatitis.
Other Hazards : CA Prop 65 Warning: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

12. Ecological Information

Ecotoxicity : No information found
Persistence and Degradability : No information found
Bioaccumulative Potential : No information found
Mobility in Soil : No information found
Other Adverse Effects : No information found

13. Disposal Considerations

Waste Disposal Method : This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

14. Transport Information

UN Proper Shipping Name : Corrosive Liquid, n.o.s., (contains phosphoric acid)
Transport Hazard Class : Class 8 (Corrosive)
UN Identification Number : UN1760
Packaging Group : PG III
Environmental Hazards : No information found



Safety Data Sheet

Report Date 13-Apr-15

Page 4 of 4

Transport in Bulk : No information found
Special Precautions for Transportation : No information found
Freight Classification : Adhesives, Adjuvants, Spreaders or Stickers, N.O.I. (NMFC Item 42652, Class 60)

15. Regulatory Information

National Fire Protection Association Rating :

Health: 2 Fire: 1 Reactivity: 0
Rating Level: (4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

S.A.R.A Title III Hazard Classification (Yes/No) :

Immediate(Acute) Health: Y
Delayed (Chronic) Health: N
Sudden Release of Pressure: N
Fire: N
Reactive: N

16. Other Information

Data of Preparation/Revision : 13-April-2015