



NFPA HAZARD RATING				U.S. TRANSPORT SUMMARY	
0	Least				Regulated in bulk packaging (119 gallons); see Section 14 for additional information.
1	Slight	2	Health		
2	Moderate	2	Flammability		
3	High	0	Reactivity		
4	Severe				

SECTION 1: IDENTIFICATION	
<b>Product Name:</b> Heatwave® <b>EPA Registration #:</b> Exempt <b>Product ID/Unity #:</b> 10111709, 60324841 <b>Common Name:</b> Agricultural adjuvant <b>Chemical Description:</b> Mixture of anionic and nonionic surfactants. <b>Recommended Uses:</b> Adjuvant – See product label for full directions for use. <b>Restrictions for Use:</b> See product label for any restrictions on use.	<b>MEDICAL EMERGENCY TELEPHONE NUMBER:</b> 1-877-424-7452 (24hrs)  <b>Non-Emergency Business Inquiries:</b> 1-855-494-6343 Mon – Fri 8am – 5pm (Central Standard Time)
<b>Manufactured For:</b> WINFIELD SOLUTIONS, LLC P. O. Box 64589 St. Paul, MN 55164-0589	
<b>FOR EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL:</b> CHEMTREC 1-800-424-9300 (24 hours)	

SECTION 2: HAZARDS IDENTIFICATION			
<b>EMERGENCY OVERVIEW:</b> Light yellow liquid with slight odor. Flammable liquid. Causes serious eye irritation/damage. Causes skin irritation and is harmful if in contact with skin. Harmful if inhaled.			
<b>POTENTIAL HEALTH EFFECTS:</b> <b>Eyes:</b> Causes serious eye irritation with the potential for long-lasting damage. <b>Skin:</b> Causes moderate skin irritation and is harmful if absorbed through the skin. <b>Inhalation:</b> Harmful if inhaled. <b>Ingestion:</b> May cause burning or irritation of the digestive tract. <b>Preexisting Conditions:</b> Preexisting respiratory conditions may be aggravated by exposure to mist. Preexisting skin conditions may be aggravated by contact with product. <b>Chronic Health Effects:</b> None known			
Carcinogenicity	NTP: Not listed	IARC: Not listed	OSHA: Not listed
<b>OSHA HCS 2012 CLASSIFICATION:</b> Flammable Liquids Category 3; Eye Irritation Category 1; Skin Irritation Category 2; Acute Inhalation Toxicity Category 4; Acute Dermal Toxicity Category 4			
<b>SIGNAL WORD:</b> DANGER			
<b>HAZARD STATEMENTS:</b> Flammable liquid and vapor. Harmful if inhaled. Harmful in contact with skin. Causes skin irritation. Causes serious eye damage.			
<b>Percent of product with unknown toxicity:</b> 0%			

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**PRECAUTIONARY STATEMENTS:**

**Prevention:** Keep away from heat, sparks, open flames, hot surfaces. - No Smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves, eye protection, face protection and protective clothing (See Section 8). Wash hands thoroughly after handling. Avoid breathing mist, vapors or spray. Use only outdoors or in a well-ventilated area.

**Response:** **If on skin (or hair):** Take off immediately all contaminated clothing and wash before reuse. Rinse skin with water/shower. Wash with plenty of water. Immediately call a poison control center (1-877-424-7452) or doctor for treatment advice. If skin irritation occurs: Get medical attention. **In case of fire:** Use dry sand, dry chemical or alcohol-resistant foam to extinguish. **If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison control center (1-877-424-7452) or doctor for treatment advice. **If inhaled:** Remove person to fresh air and keep comfortable for breathing. Call a poison control center (1-877-424-7452) or doctor for treatment advice if you feel unwell.

**Storage:** Store in a well-ventilated place. Keep cool.

**Disposal:** Dispose of contents/container in accordance with Federal, state and local regulations.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredient	% (wt)	CAS Reg. #
Surfactant blend	77.0%	*
Ethylene glycol monobutyl ether	19.0%	111-76-2
Ethanol	<4.0%	64-17-5
*Ingredients not specifically listed are non-hazardous and/or are considered to be confidential business information under 29 CFR 1910.1200(i).		
See Section 8 for exposure limits.		

**SECTION 4: FIRST AID MEASURES**

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

**Ingestion:** Seek medical attention or call a poison control center for treatment advice. Do not induce vomiting unless instructed to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Eyes:** Flush eyes with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Seek medical attention immediately.

**Skin:** Remove contaminated clothing and wash before re-using. Flush skin with water and then wash with soap and water. Seek medical attention immediately.

**SECTION 5: FIRE FIGHTING MEASURES**

**Suitable Extinguishing Media:** Foam, carbon dioxide, dry chemical, water spray or water fog

**Unsuitable Extinguishing Media:** Water jet (frothing is possible)

**Special Fire Fighting Procedures:** Wear NIOSH/MSHA approved self-contained breathing apparatus and full bunker gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later. Avoid breathing vapors; keep upwind.

**Hazardous Combustion Products:** Carbon oxides and sulfur oxides

**Unusual Fire and Explosion Hazards:** Product will burn following evaporation of water. Vapors may spread long distances and ignite. Container may explode if heated

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.

**Environmental Precautions:** Do not allow spilled product to enter sewers or waterways.

**Methods for Containment:** Contain spilled liquid by diking area with sand or earth. DO NOT use combustible materials such as sawdust.

**Methods for Clean-up:** Cover contained spill with an inert absorbent material such as sand, vermiculite or other appropriate material. Do not use combustible material such as sawdust. Scoop or sweep up material and place in a container for disposal. Do not place spilled material back in original container. Eliminate all ignition sources.

**Other Information:** None known

## SECTION 7: HANDLING AND STORAGE

**Handling:** Ensure adequate ventilation as ethylene oxide may accumulate in container head space. Immediately clean up spills that occur during handling. Keep containers closed when not in use. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

**Storage:** Store in secured, cool, dry areas away from children, feed and food products and sources of heat or flame. Store in original container. Protect from freezing. Protect package from physical damage. Take measures to prevent the buildup of electrostatic charge. Store between 45 - 90°F

**Minimum Storage Temperature:** 45°F

**Other Precautions:** Consult Federal, state and local laws and regulations pertaining to storage.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

## Exposure Guidelines

Component:	OSHA PEL	ACGIH TLV	NIOSH REL
Ethylene glycol monobutyl ether	50 ppm/240 mg/m <sup>3</sup> (TWA)	20 ppm (TWA)	5 ppm/24 mg/m <sup>3</sup> (TWA)
Ethanol	1,000 ppm/1,900 mg/m <sup>3</sup> (TWA)	1,000 ppm (STEL)	1,000 ppm/1,900 mg/m <sup>3</sup> (TWA)

**Respiratory Protection:** When handling this product in areas which are not properly ventilated wear NIOSH approved air-purifying respirator with cartridges/canisters approved for general particulates and organic vapors.

**Engineering Controls:** **Local Exhaust:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.

**Protective Gloves:** Wear chemical resistant gloves to prevent skin contact.

**Eye Protection:** To avoid contact with eyes, wear chemical goggles or full face shield and safety glasses. Contact lenses are not protective eye devices. An emergency eyewash or water supply should be readily accessible to the work area.

**Other Protective Clothing or Equipment:** Wear long-sleeve shirt, long pants and chemical resistant shoes plus socks to prevent skin contact.

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

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Liquid	<b>Specific Gravity (H<sub>2</sub>O=1):</b>	1.00 (typical)
<b>Vapor Pressure (mm Hg):</b>	Not determined	<b>Density (lbs/gallon):</b>	8.35 lbs/gallon (typical)
<b>Vapor Density (Air=1):</b>	Not determined	<b>Freezing Point:</b>	45°F (7°C)
<b>Solubility in Water (wt %):</b>	Dispersable	<b>Boiling Point/Range:</b>	Not determined
<b>Viscosity:</b>	Not determined	<b>pH (5% m/m):</b>	6.0 – 7.5
<b>Appearance and odor:</b>	Light yellow liquid with slight odor	<b>Flash Point:</b>	107°F (42°C)

## SECTION 10: STABILITY AND REACTIVITY

**Reactivity:** Flammable liquid

**Chemical Stability:** This product is stable at ambient temperature and pressure, under normal storage and handling conditions.

**Possibility of Hazardous Reactions:** Will not occur

**Conditions to Avoid:** Avoid high temperatures. Avoid heat, flame, and sparks.

**Incompatible Materials:** Strong oxidizing agents and reducing agents

**Hazardous Decomposition Products:** Carbon and sulfur oxides

## SECTION 11: TOXICOLOGICAL INFORMATION

**ACUTE TOXICITY**

**Eye Effects:** Causes serious eye irritation with the potential for long-term damage.

**Skin Effects:** LD50 is not determined. Based upon component data, this product is anticipated to be acutely toxic via dermal absorption.

**Acute Inhalation Effects:** LC50 is not determined. Based upon component data, this product is anticipated to be acutely toxic via inhalation.

**Acute Oral Effects:** LD50 is not determined. Based upon component data, this product is not anticipated to be acutely toxic via ingestion.

**Specific Target Organ Toxicity:** None known

**CHRONIC TOXICITY**

**Chronic Effects:** None known

**Carcinogenicity:** Ethylene glycol monobutyl ether and ethanol are both confirmed animal carcinogens with unknown relevance to humans.

**Mutagenicity:** No component is known to have a mutagenic effect.

**Teratogenicity:** No component is known to have a teratogenic effect.

**Reproductive Toxicity:** No component is known to have an effect on the reproductive system.

**POTENTIAL HEALTH EFFECTS:**

**Eyes:** Causes serious eye irritation with the potential for long-lasting damage.

**Skin:** Causes moderate skin irritation and is harmful if absorbed through the skin.

**Inhalation:** Harmful if inhaled.

**Ingestion:** May cause burning or irritation of the digestive tract.

## SECTION 12: ECOLOGICAL INFORMATION

**ENVIRONMENTAL SUMMARY:** According to the components, this product is toxic to aquatic life and toxic to aquatic life with long lasting effects.

**ECOTOXICITY DATA:**

**Fish Acute and Prolonged Toxicity:** Not determined

**Aquatic Invertebrate Acute Toxicity:** Not determined

**Aquatic Plant Toxicity:** Not determined

**Bird Acute and Prolonged Toxicity:** Not determined

**Honeybee Toxicity:** Not determined

**ENVIRONMENTAL EFFECTS:**

**Soil Absorption/Mobility:** Not determined

**Persistence and degradability:** Not determined

**Bioaccumulative Potential:** Not determined

**Other adverse effects:** Not determined

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste:** Dispose of in accordance with applicable Federal, state and local laws and regulations.

**Container:** Triple rinse and recycle the container or dispose of in accordance with Federal, state and local laws and regulations.

**RCRA Characteristics:** It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste. If product is disposed of as purchased – D001.

## SECTION 14: TRANSPORT INFORMATION

<b>DOT: (Ground)</b>	This product is not regulated by the U.S. Department of Transportation in quantities less than 119 gallons. For quantities of 119 gallons or greater: UN1993, Flammable liquids, n.o.s. (ethanol, 2-butoxyethanol), 3, PGIII
<b>IMDG: (Sea)</b>	For all sizes: UN1993, Flammable liquids, n.o.s. (ethanol, 2-butoxyethanol), 3, PGIII
<b>IATA: (Air)</b>	For all sizes: UN1993, Flammable liquids, n.o.s. (ethanol, 2-butoxyethanol), 3, PGIII
<b>TDG: (Canada)</b>	For all sizes: UN1993, Flammable liquids, n.o.s. (ethanol, 2-butoxyethanol), 3, PGIII

## SECTION 15: REGULATORY INFORMATION

<b>TSCA Inventory:</b> All components are listed or are exempt from listing on the TSCA inventory.		
<b>SARA Title III Information:</b>		
Section 302 - Extremely hazardous substances: Formaldehyde (CAS # 50-00-0); Ethylene oxide (CAS # 75-21-8)		
Section 311/312 – Hazard Categories: Immediate (Acute), Fire		
Section 313 – The following chemicals are subject to the reporting requirements of Section 313 of Title III, Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372:		
Ethylene glycol monobutyl ether (CAS # 111-76-2)		
<b>CERCLA</b> - This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):		
Formaldehyde (CAS #50-00-0) has an RQ of 100 lbs		
1,4-Dioxane (CAS #123-91-1) has an RQ of 100 lbs		
Ethylene oxide (CAS #75-21-8) has an RQ of 10 lbs		
<b>California Proposition 65: WARNING:</b> This product contains chemicals known to the state of California to cause cancer and/or reproductive harm.		
<b>U.S. State Worker and Community Right-To-Know (RTK) Information (CT, IL, MA, MN, NH, NJ, PA, RI):</b>		
<b>Chemical Name</b>	<b>CAS #</b>	<b>State(s)</b>
Ethylene glycol monobutyl ether	111-76-2	MA, NJ, PA
Ethanol	64-17-5	MA, PA
<b>Canadian Domestic Substances List:</b> All components are listed on the DSL.		
<b>WHMIS Classification:</b> This product is not approved for use in Canada. WHMIS classification is not determined.		

## SECTION 16: OTHER

<b>Disclaimer:</b> 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.	
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<b>Sections Revised:</b> All	