NFPA HAZARD RATING

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

U.S. TRANSPORT SUMMARY

Not regulated as a hazardous material for ground transport. (See Section 14 for additional information)

SECTION 1: IDENTIFICATION

Product Name: Turbulence®
EPA Registration #: Exempt
Product ID/Unity #: 1433752
Common Name: Agricultural adjuvant
Chemical Description: Modified vegetable oil and surfactant blend
Recommended Uses: Agricultural Adjuvant. See product label for complete list of recommended uses and use sites.
Restrictions for Use: See product label for information regarding restrictions on the use of this product.

Manufactured For:
WINFIELD SOLUTIONS, LLC
P. O. Box 64589
St. Paul, MN 55164-0589

MEDICAL EMERGENCY TELEPHONE NUMBER: 1-877-424-7452 (24hrs)

Non-Emergency Business Inquiries: 1-855-494-6343
Mon – Fri 8am – 5pm (Central Standard Time)

FOR EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL:
CHEMTREC 1-800-424-9300 (24 hours)

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Clear yellow liquid with a mild fatty odor. Causes eye and skin irritation. May cause irritation of the respiratory tract.

POTENTIAL HEALTH EFFECTS:
Eyes: Causes moderate but temporary irritation to the eyes.
Skin: Prolonged or repeated exposure may cause moderate skin irritation.
Inhalation: May be harmful if inhaled.
Ingestion: May be harmful if swallowed.
Preexisting Conditions: Pre-existing respiratory conditions may be aggravated by exposure to mists.
Chronic Health Effects: None known.

Carcinogenicity NTP: Not listed IARC: Not listed OSHA: Not listed

OSHA HCS 2012 CLASSIFICATION: Eye Irritant Category 2A; Skin Irritation Category 2; Specific Target Organ Toxicity – Single Exposure – Category 3

SIGNAL WORD: WARNING

HAZARD STATEMENTS:
Causes serious eye irritation.
Causes skin irritation.
May cause respiratory irritation.

Percent of product with unknown toxicity: 0%

PRECAUTIONARY STATEMENTS:
Prevention: Wash hands thoroughly after handling. Wear eye and face protection and protective gloves. Avoid breathing mist or spray. Use only outdoors in a well-ventilated area.

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Response:	**If in eyes:** Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists get medical attention. **If on skin:** Wash with plenty of water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash before reuse. **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 and locked place. Keep container tightly closed.
Disposal:	Dispose of contents/container in accordance with Federal, state and local regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	% (wt)	CAS Reg. #
Proprietary blend of Methyl Esters, Polyether modified Polysiloxane and Formulation Aids	100.0%	*

*Ingredients not specifically listed are non-hazardous and/or 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 or call a poison control center for treatment advice. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Ingestion:	Seek medical attention or call a poison control center immediately. Do not induce vomiting unless told 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 if irritation persists.
Skin:	Remove contaminated clothing and wash before re-using them. Wash exposed skin with soap and water. Seek medical attention if skin becomes irritated.

SECTION 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Use water spray, alcohol foam, dry chemical, or carbon dioxide (CO2).
Unsuitable Extinguishing Media: Water jet.
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: Toxic gases such as carbon monoxide and other asphyxiates may form.
Unusual Fire and Explosion Hazards: Heat may build pressure and rupture closed containers, spreading fire and increasing the risk of injury.

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: Keep spilled product from entering nearby sewers or waterways.
Methods for Containment: Contain spilled liquid by diking area with sand or earth.
Methods for Clean-up: Cover contained spill with an inert absorbent material such as sand, vermiculite or other appropriate material. Vacuum, scoop or sweep up material and place in a container for disposal. Do not place spilled material back in original container.
Other Information: No other information available.

SECTION 7: HANDLING AND STORAGE

Handling: Ensure adequate ventilation. 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 a locked, cool, dry area away from children, feed and food products in an area away from incompatible substances. Protect packaging from physical damage. Protect from exposure to fire. Maintain product between 40°F and 120°F.
Minimum Storage Temperature: 40°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
No components have exposure guidelines.			

Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear an OSHA/NIOSH-approved respirator for 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 chemically protective gloves to prevent repeated exposure to the skin.
Eye Protection: To avoid contact with eyes, wear chemical goggles or shielded safety glasses. Contact lenses are not eye protective 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 shoes plus socks to prevent prolonged or repeated 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

Physical State:	Liquid	**Specific Gravity (H_2O=1):**	0.917 (typical)
Vapor Pressure (mm Hg):	Not determined	**Density (lbs/gallon):**	7.65 lbs/gal (typical)
Vapor Density (Air=1):	Not determined	**Melting Point/Freezing Point:**	Not determined
Solubility in Water (wt %):	Dispersible	**Boiling Point/Range:**	Not determined
Viscosity:	Not determined	**pH (5% Solution):**	5.67
Appearance and odor:	Clear yellow liquid with a mild fatty odor	**Flash Point:**	>200°F

SECTION 10: STABILITY AND REACTIVITY

Reactivity: None known.
Chemical Stability: Product is stable at ambient temperature and pressure, under normal storage and handling.
Possibility of Hazardous Reactions: None known.
Conditions to Avoid: Avoid heat and open flame. Keep material away from aluminum metal, oleum and nitroform.
Incompatible Materials: Strong oxidizing agents
Hazardous Decomposition Products: Toxic gases such as carbon monoxide and other asphyxiates may form.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Eye Effects:	Causes moderate but temporary irritation including redness, tearing, blurred vision and mild discomfort.
Skin Effects:	LD50 is not determined. May cause mild irritation to skin including defatting and dermatitis. Prolonged exposure may cause more severe irritation such as local redness and swelling.
Acute Inhalation Effects:	LC50 is not determined
Acute Oral Effects:	LD50 is not determined. Swallowing can cause severe abdominal irritation, nausea, vomiting, and diarrhea
Specific Target Organ Toxicity:	None known.

CHRONIC TOXICITY

Chronic Effects:	Not anticipated to have chronic health effects due to exposure.
Carcinogenicity:	None of the components of this product are known or suspected of having carcinogenic effects.
Mutagenicity:	None of the components of this product are known or suspected of having mutagenic effects.
Teratogenicity:	None of the components of this product are known or suspected of having teratogenic effects.
Reproductive Toxicity:	None of the components of this product are known or suspected of having effects on the reproductive system.

POTENTIAL HEALTH EFFECTS:

Eyes: Causes moderate but temporary irritation to the eyes.
Skin: Prolonged or repeated exposure may cause moderate skin irritation.
Inhalation: May be harmful if inhaled.
Ingestion: May be harmful if swallowed.

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: Not determined

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:	None known

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.

SECTION 14: TRANSPORT INFORMATION

DOT: (Ground)	Not regulated by the U.S. Department of Transportation as a hazardous material.
IMDG: (Sea)	Not determined
IATA: (Air)	Not determined
TDG: (Canada)	Not determined

SECTION 15: REGULATORY INFORMATION

TSCA Inventory: All components are listed on the TSCA inventory or are exempt from listing.
SARA Title III Information:
Section 302 - Extremely hazardous substances: None listed
Section 311/312 – Hazard Categories: None listed
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:
None listed

CERCLA - This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
None listed

California Proposition 65: This product contains no chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

U.S. State Worker and Community Right-To-Know (RTK) Information (CT, IL, MA, MN, NH, NJ, PA, RI):

Chemical Name	CAS #	State(s)
None listed		

Canadian Domestic Substances List: Not determined

WHMIS Classification: This product is not approved for use in Canada. WHMIS classification is not determined.

Other Information: A maximum of 1 ppm Ethylene Oxide (CAS # 75-21-8) may be present in this product. The OSHA PEL and the ACGIH TLV for Ethylene Oxide are 1 ppm. Ethylene Oxide is a NTP, IARC, and OSHA carcinogen. Ethylene Oxide has also been determined to be a reproductive hazard. The trace levels of Ethylene Oxide in this product are not expected to result in acute or long-term hazards when handled according to the precautions set forth in this SDS. However, Ethylene Oxide may accumulate in the container headspace and be released into the ambient environment. It is the responsibility of the employer to comply with OSHA Ethylene Oxide standards (29 CFR 1910.1047).

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.

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Sections Revised: All