NFPA HAZARD RATING

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

U.S. TRANSPORT SUMMARY

Regulated in packages of 26 gallons or greater; see Section 14 for additional information.

SECTION 1: IDENTIFICATION

Product Name: Shredder® Amine 4
EPA Registration #: 1381-103
Product ID/Unity #: 1421535, 1421536, 1421537, 1421538, 1426769, 60317699
Common Name: Phenoxy herbicide
Chemical Description: 2,4-Dichlorophenoxyacetic acid, dimethylamine salt
Recommended Uses: Agricultural herbicide. See product label for complete list of 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 amber to dark brown liquid with fishy odor. Causes severe eye irritation. Harmful if swallowed.

POTENTIAL HEALTH EFFECTS:
Eyes: May cause severe irritation with corneal injury and may result in permanent impairment of vision, even blindness.
Skin: Repeated contact, as with clothing wetted with material, may cause mild skin irritation.
Inhalation: Single exposure to vapors is not likely to be hazardous.
Ingestion: Harmful if swallowed. May cause gastrointestinal irritation.
Preexisting Conditions: Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.
Chronic Health Effects: Excessive exposure may cause liver, kidney, gastrointestinal and muscular effects. Signs and symptoms of excessive exposure may be nausea and/or vomiting and abdominal cramps and/or diarrhea. In animals, effects have been reported on the following organs: adrenal gland, bone marrow, eye, kidney, liver, spleen, testes, and thyroid.

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

OSHA HCS 2012 CLASSIFICATION: Eye Corrosion Category 1; Acute Oral Toxicity Category 4; Specific Target Organ Toxicant – Repeated Exposure Category 2

SIGNAL WORD: DANGER

HAZARD STATEMENTS:
Causes serious eye damage.
Harmful if swallowed.
May cause damage to multiple organs through prolonged or repeated exposure.

Percent of product with unknown toxicity: 0%

Continued on next page

PRECAUTIONARY STATEMENTS:

Prevention:	Wear eye and face protection. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe mist or spray.
Response:	If in eyes: Rinse cautiously with water for 15 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 Swallowed: Immediately call a poison control center (1-877-424-7452) or doctor for treatment advice. Rinse mouth. Get medical attention if you feel unwell.
Storage:	See Section 7 for storage information.
Disposal:	Dispose of contents/container in accordance with Federal, state and local regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	% (wt)	CAS Reg. #
2,4-Dichlorophenoxyacetic acid, dimethylamine salt	47.3%	2008-39-1

*Ingredients not specifically listed are non-hazardous and 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 if irritation occurs.
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 if irritation occurs.

SECTION 5: FIRE FIGHTING MEASURES

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

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: Flammable dimethyl amine may be formed in a fire situation. Hydrogen chloride and nitrogen oxides may also form.

Unusual Fire and Explosion Hazards: Closed containers may explode from vapor expansion in high heat.

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: This product may be toxic to fish and aquatic invertebrates. Keep spilled product from entering sewers or waterways.

Methods for Containment: Contain spilled product 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: Spills of this product may require reporting under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as the product contains 2,4-Dichlorophenoxyacetic acid (2,4-D) with a reportable quantity (RQ) of 100 lbs. See Section 15 for additional information.

SECTION 7: HANDLING AND STORAGE

Handling: RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS AND WORKERS must refer to the pesticide product label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. 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 cool, dry areas designated specifically for pesticides, away from children, feed and food products and sources of heat. Protect from freezing. Keep containers closed when not in use. Do not store below 45°F (7°C). If frozen (crystallized), warm to 80-90°F (27-32°C) and re-dissolve before using by rolling or shaking the container. See pesticide product label for additional storage information.
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
2,4-D Dichlorophenoxy acetic acid	10 mg/m3 (TWA)	10 mg/m3 (TWA)	

NOTE TO END USERS: PERSONAL PROTECTIVE EQUIPMENT (PPE) AND CLOTHING LISTED IN THIS SECTION IS FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD REFER TO THE PESTICIDE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT (PPE) AND CLOTHING.

Respiratory Protection: Where airborne exposure to concentrations greater than the above listed exposure limits is likely, use a NIOSH approved respirator with cartridges/canisters approved for pesticides.

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 exposure.
Eye Protection: Wear chemical goggles or safety glasses and full-face shield. 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 chemical resistant shoes plus socks to prevent skin exposure.

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):**	1.157 (typical)
Vapor Pressure (mm Hg):	16.5 at 20°C (68°F)	**Density (lbs/gallon):**	9.66 lbs/gallon (typical)
Vapor Density (Air=1):	Not determined	**Melting Point/Freezing Point:**	Not determined
Solubility in Water (wt %):	Infinite	**Boiling Point/Range:**	212°F (100°C)
Viscosity:	Not determined	**pH:**	Not determined
Appearance and odor:	Clear amber to dark brown with a fishy smell.	**Flash Point:**	Not combustible

SECTION 10: STABILITY AND REACTIVITY

Reactivity: None known
Chemical Stability: 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, heat or flame.
Incompatible Materials: Strong oxidizing agents, acids and bases.
Hazardous Decomposition Products: Hydrogen chloride, nitrogen oxides, and dimethyl amine under fire conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Eye Effects:	May cause severe irritation with corneal injury and may result in permanent impairment of vision, including blindness.
Skin Effects:	LD50 > 5,050 mg/kg
Acute Inhalation Effects:	May cause irritation of the upper respiratory tract but a single exposure to vapors is not likely to be hazardous.
Acute Oral Effects:	Estimated LD50 = 1340 mg/kg
Specific Target Organ Toxicity:	In animals, effects of exposure to 2,4-D have been reported on the following organs: adrenal gland, bone marrow, eye, kidney, liver, spleen, testes, and thyroid.

CHRONIC TOXICITY

Chronic Effects:	Excessive exposure may cause liver, kidney, gastrointestinal and muscular effects. Signs and symptoms of excessive exposure may be nausea and/or vomiting and abdominal cramps and/or diarrhea.
Carcinogenicity:	No components are anticipated to have carcinogenic effects.
Mutagenicity:	No components are anticipated to have mutagenic effects.
Teratogenicity:	No components are anticipated to have teratogenic effects.
Reproductive Toxicity:	No components are anticipated to have effects on the reproductive system.

POTENTIAL HEALTH EFFECTS:

Eyes: May cause severe irritation with corneal injury and may result in permanent impairment of vision, even blindness.
Skin: Repeated contact, as with clothing wetted with material, may cause mild skin irritation.
Inhalation: Single exposure to vapors is not likely to be hazardous.
Ingestion: Harmful if swallowed. May cause gastrointestinal irritation.

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: This product may be toxic to fish and aquatic invertebrates. Information presented below is based upon the technical ingredient 2,4-Dichlorophenoxyacetic acid.

ECOTOXICITY DATA:

Fish Acute and Prolonged Toxicity:	Bioconcentration factor in fish is 0.1-0.47. Acute LC50=344 mg/L for *Pimephales promelas* (fathead minnow) Acute LC50 = 524 mg/L for *Lepomis macrochirus* (bluegill), Acute LC50 =245 mg/L for *Oncohynchus mykiss* (rainbow trout) in 96 hours.
Aquatic Invertebrate Acute Toxicity:	Acute LC50 = 184 mg/L for *Daphnia magna* (water flea) Acute LC50 = 181 mg/L for *Penaeus duorarum* (pink shrimp) Acute LC50 = 469 mg/L for *Menidia beryllina* (tidewater silverside) Acute EC50=136 mg/L for shell deposition inhibition in *Crassostrea virginica* (eastern oyster)
Aquatic Plant Toxicity:	Growth inhibition EC50= 0.58 mg/L for *Lemna* sp. (duckweed) EC50 = 36.60 mg/L for *Skeletonema costatum* (marine diatom) EC50 = 153 mg/L for *Anabaena flosaquae* (blue-green alga) EC50 = 66.5 mg/L for *Selenastrum capricornutum* (green alga) EC50 = 5.28 mg/L for *Navicula* sp. (diatom)
Bird Acute and Prolonged Toxicity:	Dietary LC50 > 5620 ppm for *Colinus virginianus* (bobwhite) and for *Anas platyrhynchos* (mallard).
Honeybee Toxicity:	Not determined

ENVIRONMENTAL EFFECTS:

Soil Absorption/Mobility:	Potential for mobility in soil is high (50 < Koc < 150). Soil organic carbon/water partition coefficient (Koc) is 72-136.
Persistence and degradability:	Biochemical oxygen demand is 0.72 for 5, 10 and 20 days. Chemical oxygen demand is 0.72. Under aerobic soil conditions the half-life is 4 - 23 days. Under aerobic aquatic conditions, the half-life is 0.5 - 11 days.
Bioaccumulative Potential:	Bioconcentration potential is low (BCF < 100 or log Pow < 3).
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. See pesticide product label for full instructions on disposal.
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)	This product is not regulated by the U.S. Department of Transportation as a hazardous material for ground shipment in quantities less than 26 gallons. For quantities greater than or equal to 26 gallons: UN3082, Environmental Hazardous Substance, Liquid, N.O.S (Contains 2,4-D), 9, PG III, RQ
IMDG: (Sea)	Not determined
IATA: (Air)	Not determined
TDG: (Canada)	Not determined

SECTION 15: REGULATORY INFORMATION

TSCA Inventory: This product is exempt from TSCA inventory listing requirements as it is solely for FIFRA regulated use.
SARA Title III Information:
Section 302 - Extremely hazardous substances: None listed
Section 311/312 – Hazard Categories: Immediate (Acute); Delayed (Chronic)
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):
2,4-Dichlorophenoxyacetic acid (CAS# 94-75-7) has an RQ of 100 lbs (reached with 26 gallons of product).

EPA Registration 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:

DANGER
Corrosive.
Causes irreversible eye damage.
Harmful if swallowed.
Do not get in eyes, on skin or on clothing. Avoid breathing spray mist.

California Proposition 65: This product does not contain any components known to the state of California to cause cancer and/or 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)
No components listed		

Canadian Domestic Substances List: Not determined

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

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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