

**SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

<b>COMPANY ADDRESS:</b>	<b>EMERGENCY TELEPHONE NUMBERS:</b>
WINFIELD SOLUTIONS, LLC	(800) 424-9300 (CHEMTREC, transportation and spills)
P.O. Box 64589	Medical Emergency: 1-877-424-7452 (24 hrs)
St. Paul, MN 55164-0589	Non-Emergency Business Inquiries: 1-855-494-6343 Mon – Fri 8am – 5pm (CST)
PRODUCT NAME	: <b>2,4-DB 200</b>
CHEMICAL NAME	: Dimethylamine Salt of 4-(2,4-dichlorophenoxy)butyric acid
PRODUCT USE	: Herbicide
PRODUCT CODE	: EPA Reg. No 1381-215

**SECTION 2 - HAZARDS IDENTIFICATION SUMMARY**

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

Clear light amber liquid

**HEALTH HAZARDS:** DANGER. Corrosive and severe eye irritant with permanent eye injury possible including blindness. Harmful if swallowed or absorbed through skin.

**PHYSICAL HAZARDS:** May release toxic fumes if burned.

**ENVIRONMENTAL HAZARDS:** Toxic to some aquatic organisms.

**SECTION 3 - COMPOSITION, INFORMATION OF INGREDIENTS**

COMPONENT	PERCENTAGE	CAS NUMBER
Dimethylamine Salt of 4-(2,4-dichlorophenoxy)butyric acid	25.9 %	2758-42-1
Inert Ingredients	74.1 %	N/A

**SECTION 4 - FIRST AID MEASURES**

First Aid responders should use protective equipment in Section 8 if there is a potential for exposure to product.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**IF INHALED:** Move person to fresh air, if person is 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 further treatment advice.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**SECTION 5 - FIRE FIGHTING MEASURES**

National Fire Protection Rating (NFPA)

HEALTH	2
FLAMMABILITY	0
REACTIVITY	1
4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

**FLASHPOINT:** >100°C

**EXTINGUISHING MEDIA:** Water spray, Foam

**FIRE AND EXPLOSION HAZARD:** Combustion may generate hydrogen chloride and oxides of nitrogen,gases

**FIRE FIGHTING INSTRUCTIONS:** Evacuate area and fight fire upwind from a safe distance to avoid possible hazardous fumes and decomposition products. Dike and collect water used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water run off.

**FIRE FIGHTING EQUIPMENT:** Self-contained breathing apparatus with full facepiece and protective clothing.

Minimize use of water to prevent environmental contamination. Contact your State Pesticide or Environmental Control Agency, or nearest EPA Regional Office for guidance on disposal.

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**IN CASE OF SPILLS OR LEAKS:** Clean up spills immediately, observing precautions in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

**SMALL SPILL:** Absorb small spills on sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal.

**LARGE SPILL:** Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify, and scrape up for disposal.

Minimize use of water to prevent environmental contamination

**SECTION 7 - HANDLING AND STORAGE**

KEEP OUT OF REACH OF CHILDREN!

Wear proper safety equipment specified in Section 8 when mixing, loading or otherwise handling concentrate.

**HANDLING:** Use only in a well-ventilated area. Do not reuse this container. Wear proper safety equipment

**STORAGE:** Store in original container in a dry secured storage area. Keep container tightly closed when not in use. . Keep away from food, feed and drinking water. Store away from heat (> 100 F) and keep from freezing (< 35 F).

Do not contaminate water, food or feed by storage or disposal.

**SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION**

EXPOSURE LIMITS (8 hour TWA, ppm): .

COMPONENT	OSHA PEL	ACIGH TLV
Dimethylamine Salt of 4-(2,4-dichlorophenoxy)butyric acid	Not listed	Not listed

**ENGINEERING CONTROLS:** Proper ventilation is required when handling or using this product to avoid exposure to airborne contaminants. Local mechanical exhaust ventilation may be required. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**PERSONAL PROTECTIVE EQUIPMENT:**

EYE PROTECTION - Safety goggles or full face respirator if vapors cause eye discomfort.

CLOTHING – Long-sleeved shirt and long pants, Shoes plus socks. Chemical-resistant apron when mixing/loading, cleaning up spills, cleaning equipment, or otherwise exposed to concentrate.

GLOVES – Chemical resistant gloves made of any waterproof material.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Clear light amber liquid
<b>Odor:</b>	Amine like odor
<b>pH:</b>	6.9 – 7.9
<b>Melting Point:</b>	Not applicable
<b>Boiling Point:</b>	No data
<b>Flash Point:</b>	>100°C
<b>Evaporation Rate:</b>	No data
<b>Flammability:</b>	Not flammable
<b>Flammability Limits:</b>	Not applicable
<b>Vapor Pressure:</b>	No data
<b>Vapor Density:</b>	Not applicable
<b>Density:</b>	1.06 – 1.10 g/ml (8.85 – 9.18 lb/gl)*
<b>Solubility:</b>	Emulsifies
<b>Partition Coefficient:</b>	No data
<b>Auto-Ignition Temperature:</b>	No data
<b>Decomposition Temperature:</b>	No data
<b>Viscosity:</b>	5.329 cSt @ 20°C; 3.014 cSt @ 40°C

\*Listed density is an approximate value and does not necessarily represent that of a specific batch.

**SECTION 10 - STABILITY AND REACTIVITY**

**PRODUCT REACTIVITY:** Not known to be reactive.

**CHEMICAL STABILITY:** Stable under normal conditions

**HAZARDOUS REACTION/POLYMERIZATION:** Will not occur

**CONDITIONS TO AVOID:** Avoid excessive heat.

**INCOMPATIBLE MATERIALS:** Oxidizing agents and acids.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition may release toxic gases such as HCl

**SECTION 11 - TOXICOLOGICAL INFORMATION****ACUTE TOXICITY:**

Oral LD <sub>50</sub> (rat)	>2000 mg/kg
Dermal LD <sub>50</sub> (rat)	>5000 mg/kg
Inhalation LC <sub>50</sub> (rat)	>2.01 mg/L
Eye Irritation (rabbit)	Severely irritating
Skin Irritation (rabbit)	Slightly irritating
Sensitization (guinea pig)	Not a contact sensitizer

**CARCINOGEN STATUS:**

OSHA	No
NTP	No
IARC	2B (chlorophenoxy herbicides)

**TERATOGENICITY:** No evidence of developmental or reproductive toxicity

**MUTAGENICITY:** No known to be mutagenic

**SECTION 12 - ECOLOGICAL INFORMATION**

**ENVIRONMENTAL SUMMARY:** This chemical is toxic to fish. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring issues. Do not contaminate water when disposing of equipment washwaters. Do not contaminate water intended for irrigation or domestic purposes. Do not apply when weather conditions favor drift from target area.

Ground Water Contamination Most cases of ground water contamination involving phenoxy herbicides such as 2,4-DB have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-DB pesticides at such sites to prevent contamination of ground water supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent ground water contamination.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

**FATE:** 2,4-DB DMA salt dissociates to the parent acid rapidly after application. 2,4-DB acid has a half-life of 6-30 days depending on soil type. 2,4-DB acid is moderately mobile in soil.

**FISH TOXICITY:** (Acid Technical)

96 hour LC<sub>50</sub>, Bluegill – Unknown  
96 hour LC<sub>50</sub>, Rainbow trout – 2 mg/L

**AVIAN TOXICITY:** (Acid Technical)

Oral Dietary LC<sub>50</sub>, Bobwhite Quail - > 5,000 ppm  
Oral Dietary LC<sub>50</sub>, Mallard Duck - > 5,000 ppm

**BEE TOXICITY:** 14.5 ug/bee.

### **SECTION 13 - DISPOSAL CONSIDERATIONS**

Do not contaminate water, food or feed by storage or disposal.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Non-refillable containers: Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Refillable container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Refer to the container label to determine if it is refillable and for complete cleaning and disposal instructions.

### **SECTION 14 - TRANSPORT INFORMATION**

**SHIPPING DESCRIPTION:** Not regulated by DOT  
(Ground transport)

**TRANSPORT HAZARD CLASS:** n/a  
**UN NUMBER:** n/a  
**DOT PACKING GROUP:** III

### **SECTION 15 - REGULATORY INFORMATION**

**CERCLA REPORTABLE QUANTITY:** Not listed

**SARA TITLE III STATUS:**

311/312 Hazard Categories – Immediate & Delayed Health  
313 Toxic Chemicals – Not listed

**CALIFORNIA PROP 65:** 2,4-DB acid listed

**TSCA:** This product is exempted from TSCA because it is solely for FIFRA regulated use.

**SECTION 16 - OTHER INFORMATION**

HMIS HAZARD RATINGS	HEALTH	3
	FLAMMABILITY	0
	PHYSICAL HAZARD	1
	4=Severe   3=Serious   2=Moderate   1=Slight   0=Minimal	

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This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling.

It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

**REVISED DATE:** September, 2014

**REFERENCE:** Update for GHS compliance