

# MATERIAL SAFETY DATA SHEET

## SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**COMPANY ADDRESS:**

ALBAUGH, INC.  
Ankeny, IA 50021

**EMERGENCY TELEPHONE NUMBERS:**

(800) 424-9300 (CHEMTREC, transportation and spills)

**PRODUCT NAME**

: **LANDMASTER BW**

**CHEMICAL NAME**

: Isopropylamine salt of 2,4-D  
Isopropylamine salt of glyphosate

**CHEMICAL FAMILY**

: Phenoxy herbicide (2,4-D) and phosphonic acid herbicide (glyphosate)

**PRODUCT CODE**

: EPA Reg. No. 42750-62

## SECTION 2 - COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS NUMBER	OSHA PEL	ACIGH TLV
2,4-D IPA Salt	20.6 %	5742-17-6	Not established	Not established
Glyphosate IPA Salt	12.9 %	38641-94-0	Not established	Not established
N-Methylpyrrolidone	< 7.0 %	872-50-4	Not established	Not established
Inert Ingredients	66.5 %	N/A	N/A	N/A

## SECTION 3 - HAZARDS IDENTIFICATION SUMMARY

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

**HEALTH HAZARDS:** Harmful if swallowed or absorbed through skin. Severely irritating to eyes.

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

**ENVIRONMENTAL HAZARDS:** 2,4-D is toxic to some aquatic species. Glyphosate is phytotoxic to non-target terrestrial plant species.

## SECTION 4 - FIRST AID MEASURES

**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.

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**

**FLASH POINT:** Not combustible

**AUTOIGNITION TEMPERATURE:** Not established

**FLAMMABLE LIMITS:** Not established

**EXTINGUISHING MEDIA:** Water spray, Foam

**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.

**HAZARDOUS COMBUSTION PRODUCTS:** Hydrogen chloride, Oxides of nitrogen, phosphorous and carbon

## **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

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.

## **SECTION 7 - HANDLING AND STORAGE**

KEEP OUT OF REACH OF CHILDREN!

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

**STORAGE:** Keep container closed when not in use. Keep away from food, feed and drinking water. Store away from heat (> 100 F) and keep from freezing (< 30 F).

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

**EXPOSURE LIMITS (8 hour TWA, ppm):** Refer to Section 3.

**ENGINEERING CONTROLS:** Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. 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. Mixers and loaders who do not use a mechanical system to transfer the contents of this container must also wear coveralls or a chemical-resistant apron.

**GLOVES** – Chemical resistant gloves made of any waterproof material.

**RESPIRATOR** - When handling in enclosed areas where exposure limits may be exceeded, use a respirator with either an organic vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G)

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**

**PHYSICAL DESCRIPTION:** Clear yellow to amber liquid.  
**ODOR:** Mild amine  
**SPECIFIC GRAVITY:** 1.09 – 1.15 g/mL @ 20 C (9.10 – 9.65 lb/gal)\*  
**pH:** 5.0 – 6.0  
**VAPOR PRESSURE:** Unknown  
**WATER SOLUBILITY:** Soluble

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

### **SECTION 10 - STABILITY AND REACTIVITY**

**STABILITY:** Stable under normal conditions.  
**CONDITIONS TO AVOID:** Avoid excessive heat.  
**INCOMPATIBILITY WITH OTHER MATERIALS:** Strong oxidizers or bases, mild and galvanized steel.  
**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, Nitrogen oxides, phosphorous oxides.  
**HAZARDOUS POLYMERIZATION:** Will not occur

### **SECTION 11 - TOXICOLOGICAL INFORMATION**

**ACUTE TOXICITY:**

Oral LD <sub>50</sub> (rat)	-	> 2,000 mg/Kg
Dermal LD <sub>50</sub> (rat)	-	> 5,000 mg/Kg
Inhalation LC <sub>50</sub> (rat)	-	> 5.0 mg/L
Eye Irritation (rabbit)	-	Moderate to severe
Skin Irritation (rabbit)	-	Slight
Sensitization (guinea pig)	-	Non-sensitizer

**CARCINOGEN STATUS:**

OSHA	-	No
NTP	-	No
IARC	-	2B (2,4-D)

**MUTAGENIC DATA:** No known to be mutagenic

### **SECTION 12 - ECOLOGICAL INFORMATION**

**ENVIRONMENTAL SUMMARY:** This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and non-target plants. Do not apply directly to water, or 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. Apply this product only as directed on label. Data indicate that glyphosate IPA and dicamba IPA dissociate to the parent acids in the environment.

**FISH TOXICITY:** (Glyphosate acid)  
96 hour LC<sub>50</sub>, Rainbow trout – 8.2 mg/L  
96 hour LC<sub>50</sub>, Bluegill – 5.8 mg/L  
**FISH TOXICITY:** (2,4-D acid)  
96 hour LC<sub>50</sub>, Bluegill – 524 mg/L  
96 hour LC<sub>50</sub>, Rainbow trout – 250 mg/L

**AVIAN TOXICITY:** (Glyphosate acid)  
Oral LD<sub>50</sub>, Bobwhite quail – > 3,800 mg/Kg

Oral LD<sub>50</sub>, Mallard duck – Unknown  
**AVIAN TOXICITY:** (2,4-D acid)  
 Oral LD<sub>50</sub>, Quail – 500 mg/Kg  
 Oral Dietary LC<sub>50</sub>, Mallard Duck - > 5,500 ppm

**SECTION 13 - DISPOSAL CONSIDERATIONS**

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

**WASTE:** Pesticide wastes are toxic. Dispose of in accordance with applicable Federal, state and local laws and regulations at an approved facility.

**CONTAINER:** Do not reuse container. Triple rinse (or equivalent). Then offer for recycling, reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**SECTION 14 - TRANSPORT INFORMATION**

**DOT SHIPPING DESCRIPTION:**

Containers < 50 gallon - Not regulated by DOT  
 Containers ≥ 50 gallons - UN3082, Environmentally Hazardous Substances, Liquid, N.O.S., 9, PG III, RQ (2,4-D salt)

**DOT HAZARD CLASS:** Class 9 (≥ 50 gallon)  
**IDENTIFICATION NUMBER:** UN3082  
**DOT PACKING GROUP:** PG III  
**DOT PRIMARY/SECONDARY LABEL:** Class 9 (≥ 50 gallon)  
**DOT PRIMARY/SECONDARY PLACARD:** Class 9 (≥ 50 gallon)  
**DOT EMERGENCY RESPONSE GUIDE #:** 171

**SECTION 15 - REGULATORY INFORMATION**

**CERCLA REPORTABLE QUANTITY:** 100 lb. 2,4-D (approximately 50 gallons of product)

**SARA TITLE III STATUS:**  
 311/312 Hazard Categories – Immediate & Delayed Health  
 313 Toxic Chemicals – 2,4-D, N-methyl pyrrolidone

**CALIFORNIA PROP 65:** Contains N-methyl pyrrolidone

**SECTION 16 - OTHER INFORMATION**

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

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REVISED DATE: September, 2008  
REVISED FOR: Revise DOT description in Section 14