




# Material Safety Data Sheet

<b>NFPA</b>	<b>Transport Symbol</b>
	Not regulated

Preparation Date 21-Apr-2011

Revision Date 21-Apr-2011

Revision Number 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Code** 2100201  
**Product Name** 2,4-DB 200  
**Synonyms** 2,4-DB Dimethylamine Salt  
**Formula** C<sub>14</sub>H<sub>18</sub>Cl<sub>2</sub>O<sub>3</sub>  
**CAS Number** 2758-42-1  
**EPA Registration Number** 2749-516

**Contact**

ACETO AGRICULTURAL  
CHEMICALS CORP.  
4 Tri Harbor Court  
Port Washington, NY 11050-4661  
Phone: (516) 627-6000  
Fax: (516) 627-6093  
Email: regulatory@aceto.com

**ChemTrec Emergency Telephone Numbers** 1-800-424-9300  
1-703-527-3887

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

May be fatal if swallowed. May be harmful if inhaled. May be harmful in contact with skin. Corrosive to the eyes and may cause severe damage including blindness. Severe eye irritation. May cause skin irritation. May cause irritation of the mucous membranes. May cause irritation of respiratory tract. Toxic to fish.

**Appearance** Light, Amber, Clear.

**Physical State** Liquid.

**Odor** Slight, Phenoxy

**OSHA Regulatory Status** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Mexico - Grade** Not available

### Potential Health Effects

**Principle Routes of Exposure** Not available

**Acute Effects**

- Eyes** Corrosive to the eyes and may cause severe damage including blindness. Severe eye irritation. Avoid contact with eyes.
- Skin** May be harmful in contact with skin. Substance may cause slight skin irritation. May aggravate existing skin disease. Avoid contact with skin.
- Inhalation** May be harmful by inhalation. May cause irritation of the mucous membranes. May cause irritation of respiratory tract. Avoid breathing vapors or mists. May aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis.
- Ingestion** May be fatal if swallowed. Do not ingest.

**Additional Acute Effects** Nausea. Vomiting. Abdominal pain. May cause fall in blood pressure. Muscle weakness. Muscle cramps/spasms.

**Chronic Effects** Avoid repeated exposure.

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions** Not available

**Interactions with Other Chemicals** Not available

**Potential Environmental Effects** Toxic to fish.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**CAS Number** 2758-42-1

**Formula** C<sub>14</sub>H<sub>18</sub>Cl<sub>2</sub>O<sub>3</sub>

**Hazardous Components**

Chemical Name	CAS-No	Weight %
Dimethylamine Salt of 4-(2,4-Dichlorophenoxy) Butyric Acid	2758-42-1	26.2

**Non-hazardous Components**

Chemical Name	CAS-No	Weight %
Other Ingredients	N/A	73.8

### 4. FIRST AID MEASURES

**General Advice** Show this safety data sheet to the doctor in attendance.



<b>Environmental Precautions</b>	Local authorities should be advised if significant spillages cannot be contained. Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Should not be released into the environment.
<b>Methods for Containment</b>	Not available
<b>Methods for Cleaning up</b>	Evacuate personnel to safe areas. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Clean contaminated surface thoroughly.
<b>Other Information</b>	Not applicable

## 7. HANDLING AND STORAGE

<b>Handling</b>	Use only in an area equipped with a safety shower. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation. Use only in well-ventilated areas. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Avoid repeated exposure.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labelled containers. Keep out of the reach of children. Protect from freezing. Store at temperatures above 32°F. If product is allowed to freeze, warm to 50°F and agitate thoroughly before using.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Exposure Guidelines</b>	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
<b>Engineering Controls</b>	Ensure adequate ventilation, especially in confined areas
<b>Personal Protective Equipment</b>	
<b>Eye/face Protection</b>	Goggles. Face-shield.
<b>Skin Protection</b>	Long sleeved clothing. Shoes plus socks. Chemical resistant apron. Chemical resistant boots. Protective gloves. If you want more options, follow the instructions for category A on the EPA chemical-resistance category selection chart.
<b>Respiratory Protection</b>	In case of insufficient ventilation wear suitable respiratory equipment.

### **General Hygiene Considerations**

Handle in accordance with good industrial hygiene and safety practice. Wash hands and face before breaks and immediately after handling the product. For additional information consult the EPA Pesticide Label.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Light, Amber, Clear
<b>Physical State</b>	Liquid
<b>Odor</b>	Slight, Phenoxy
<b>pH</b>	6.92
<b>Flash Point</b>	> 100°C
<b>Method</b>	Pensky-Marten Closed cup
<b>Autoignition Temperature</b>	Not available
<b>Boiling Point/Range</b>	Not available
<b>Melting Point/Range</b>	0°C
<b>Flammability Limits in Air</b>	<b>Lower</b> Not available <b>Upper</b> Not available
<b>Vapor Pressure</b>	Not available
<b>Vapor Density</b>	Not available
<b>Specific Gravity</b>	1.094 g/ml@20°C
<b>Density</b>	8.9 – 9.3 lb/Gal
<b>Water Solubility</b>	Not available
<b>Reactivity in Water</b>	Not available
<b>Viscosity</b>	6.468 Centistokes@20°C
<b>Molecular Weight</b>	294.18

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable under normal conditions.
<b>Conditions to Avoid</b>	Heat, flames and sparks.
<b>Incompatible Materials</b>	Strong oxidizing agents. Bases. Acids.
<b>Hazardous Decomposition Products</b>	Carbon monoxide, Carbon dioxide (CO <sub>2</sub> ), Hydrogen chloride gas, Nitrogen oxides (NO <sub>x</sub> ).
<b>Possibility of Hazardous Reactions</b>	None under normal processing

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

<b>LD50 Oral:</b>	635 mg/kg (rat)
<b>LD50 Dermal:</b>	> 2,000 mg/kg (rat)
<b>LC50 Inhalation:</b>	> 3.27mg/L (rat)

### Chronic Toxicity

#### **Carcinogenicity**

Chronic effects were observed in liver, kidney, heart and blood chemistry. The International Agency for Research on Cancer (IARC) lists exposure to chlorophenoxy herbicides as a class 2B carcinogen, the category for limited evidence for carcinogenicity in humans. However, more current 2,4-DB lifetime feeding studies in rats and mice did not show carcinogenic potential.

<b>Irritation</b>	Eye,rabbit: Severe / Corrosive
<b>Corrosivity</b>	Not available
<b>Sensitization</b>	Not available
<b>Neurological Effects</b>	Not available
<b>Mutagenic Effects</b>	Not available
<b>Reproductive Effects</b>	No impairment of reproductive function attributable to 2,4-DB has been noted in laboratory animal studies. At doses toxic to parental animals, there were effects to kidneys, adrenals and ovaries of offspring. At the highest dose, offspring mortalities and growth reductions were observed during lactation.
<b>Developmental Effects</b>	Studies in laboratory animals with 2,4-DB have shown early resorptions, decreased fetal body weights and skeletal variations in the offspring at doses toxic to mother animals. These are considered to result from maternal toxicity.
<b>Target Organ Effects</b>	Repeated overexposure may cause effects to: Liver, Kidney, Heart, Thyroid, Adrenals, Blood, Stomach, Reduced body weight, Eyes, Skin.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Toxicity to fish. In laboratory and field studies, 2,4-DB-DMAS rapidly dissociated to parent acid in the environment. The average field half-life of 2,4-DB is approximately 7 days.

<b>Persistence / Degradability</b>	Not available
<b>Bioaccumulation / Accumulation</b>	Not available
<b>Mobility in Soil</b>	Not available

## 13. DISPOSAL CONSIDERATIONS

<b>Waste Disposal Method</b>	Contact waste disposal services. Dispose of in accordance to EPA Pesticide Label Instructions.
<b>Contaminated Packaging</b>	Dispose of in accordance to EPA Pesticide Label Instructions.
<b>US EPA Waste Number</b>	Not available

## 14. TRANSPORT INFORMATION

<b><u>DOT</u></b>	Not regulated
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<u>TDG</u>	Not regulated
<u>MEX</u>	Not regulated
<u>ICAO</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG/IMO</u>	Not regulated
<u>RID</u>	Not regulated
<u>ADR</u>	Not regulated
<u>ADN</u>	Not regulated

## 15. REGULATORY INFORMATION

### International Inventories

<b>U.S.A. (TSCA)</b>	Does not Comply
<b>Canada (DSL)</b>	Does not Comply
<b>EU (ELINCS)</b>	Does not Comply
<b>EU (EINECS)</b>	Does not Comply
<b>Japan (ENCS)</b>	Does not Comply
<b>China</b>	Does not Comply
<b>Korea (KECL)</b>	Does not Comply
<b>Philippines (PICCS)</b>	Does not Comply
<b>Australia (AICS)</b>	Does not Comply

Chemical Name	U.S.A. (TSCA)	Canada (DSL)	EU (EINECS)	EU (ELINCS)
Dimethylamine Salt of 4-(2,4-Dichlorphenoxy) Butyric Acid	-	-	220-422-0	-
Other Ingredients	-	-	-	-

Chemical Name	Japan (ENCS)	China	Korea (KECL)	Philippines (PICCS)	Australia (AICS)
Dimethylamine Salt of 4-(2,4-Dichlorphenoxy) Butyric Acid	-	-	-	-	-
Other Ingredients	-	-	-	-	-

This material as a whole is exempt from the TSCA Inventory // FIFRA Regulated Pesticide

### USA

#### Federal Regulations

##### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### SARA 311/312 Hazardous Categorization

<b>Acute Health Hazard</b>	Yes
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Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain any HAPs.

**State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**State Right-to-Know**

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS Hazard Class**

Not determined

<b>16. OTHER INFORMATION</b>
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<b>Prepared By</b>	Environmental Health and Safety, Regulatory Affairs
<b>Preparation Date</b>	21-Apr-2011
<b>Revision Date</b>	21-Apr-2011
<b>Revision Summary</b>	Not available

**Disclaimer**

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of MSDS**