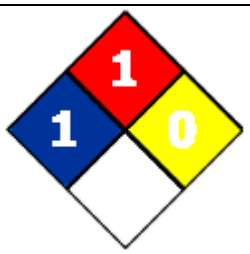
Material Safety Data Sheet

NFPA	Transport Symbol
	Not regulated

Preparation Date 07-Mar-2011 **Revision Date** 08-Mar-2011 **Revision Number** 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Code 2100101
Product Name 2,4-DB 175
Synonyms 2,4-DB Dimethylamine Salt
Formula C14H18Cl2O3
CAS Number 2758-42-1
EPA Registration Number 2749-126

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 aggravatae 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 C14H18Cl2O3

Hazardous Components

Chemical Name	CAS-No	Weight %
Dimethylamine Salt of 4-(2,4-Dichlorphenoxy) Butyric Acid	2758-42-1	23

Non-hazardous Components

Chemical Name	CAS-No	Weight %
Other Ingredients	N/A	77

4. FIRST AID MEASURES

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

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician or Poison Control Centre immediately.
Skin Contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Discard contaminated shoes. Call a physician or Poison Control Centre immediately.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician or Poison Control Centre immediately.
Ingestion	If swallowed, and the victim is conscious and alert, induce vomiting immediately, as directed by medical personnel. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Centre immediately.
Notes to Physician	Treat symptomatically
Protection of First-aiders	Use personal protective equipment. Avoid contact with skin, eyes and clothing.

5. FIRE-FIGHTING MEASURES

Flammable Properties	Not available.
Suitable Extinguishing Media	Water spray. Carbon dioxide (CO2). Foam. Dry chemical.
Unsuitable Extinguishing Media	Not available.
Hazardous Combustion Products	Thermal decomposition or combustion may produce hazardous gases and/or materials.

Explosion Data

Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

Specific Hazards Arising from the Chemical
Keep product and empty container away from heat and sources of ignition.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA **Health** 1 **Flammability** 1 **Instability** 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental Precautions	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.
Methods for Containment	Not available
Methods for Cleaning up	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.
Other Information	Not applicable

7. HANDLING AND STORAGE

Handling	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.
Storage	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

Exposure Guidelines	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Engineering Controls	Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Eye/face Protection	Goggles. Face-shield.
Skin Protection	Long sleeved clothing. Shoes plus socks. Chemical resistant apron. Chemical resistant boots. Protective gloves. If you want more options, follow the instructions for catagory A on the EPA chemical-resistance catagory selection chart.
Respiratory Protection	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

Appearance	Light, Amber, Clear	
Physical State	Liquid	
Odor	Slight, Phenoxy	
pH	7.29	
Flash Point	> 100°C	
Method	Pensky-Marten Closed cup	
Autoignition Temperature	Not available	
Boiling Point/Range	Not available	
Melting Point/Range	0°C	
Flammability Limits in Air	**Lower** Not available	**Upper** Not available
Vapor Pressure	Not available	
Vapor Density	Not available	
Specific Gravity	1.086 g/ml@20°C	
Density	8.9 – 9.3 lb/Gal	
Water Solubility	Not available	
Reactivity in Water	Not available	
Viscosity	4.633 Centistokes@20°C	
Molecular Weight	294.18	

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Conditions to Avoid	Heat, flames and sparks.
Incompatible Materials	Strong oxidizing agents. Bases. Acids.
Hazardous Decomposition Products	Carbon monoxide, Carbon dioxide (CO_2), Hydrogen chloride gas, Nitrogen oxides (NO_x).
Possibility of Hazardous Reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

LD50 Oral:	635 mg/kg (rat)
LD50 Dermal:	> 2,000 mg/kg (rat)
LC50 Inhalation:	> 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.

Irritation	Eye,rabbit: Severe / Corrosive
Corrosivity	Not available
Sensitization	Not available
Neurological Effects	Not available
Mutagenic Effects	Not available
Reproductive Effects	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.
Developmental Effects	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 tomother animals. These are considered to result from maternal toxicity.
Target Organ Effects	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 appoximately 7 days.

Persistence / Degradability	Not available
Bioaccumulation / Accumulation	Not available
Mobility in Soil	Not available

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

DOT	Not regulated

TDG	Not regulated
MEX	Not regulated
ICAO	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated
RID	Not regulated
ADR	Not regulated
ADN	Not regulated

15. REGULATORY INFORMATION

International Inventories

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

Acute Health Hazard	Yes

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

16. OTHER INFORMATION

Prepared By	Environmental Health and Safety, Regulatory Affairs
Preparation Date	07-Mar-2011
Revision Date	08-Mar-2011
Revision Summary	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