

SAFETY DATA SHEET

Issuing Date 12-Jul-2013

Revision Date 09-Dec-2019

Revision Number 4

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product Name **2,4-DB 175**

Other means of identification

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

Recommended use of the chemical and restrictions on use

Recommended Use Agriculture
Uses advised against Do not use where contact with food or drinking water is possible. Avoid prolonged contact with eyes, skin, and clothing.

Details of the supplier of the safety data sheet

Supplier Address ACETO LIFE SCIENCES, LLC
4 Tri Harbor Court
Port Washington, NY 11050-4661
Phone: (516) 627-6000
Fax: (516) 627-6093
Email: aceto@aceto.com

Emergency Telephone Number(s)

ChemTrec: 1-800-424-9300 Outside of the United States: 1-703-527-3887

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Oral	Category 2
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Gases)	Category 4
Acute toxicity - Inhalation (Vapors)	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin Corrosion/Irritation	Category 1
Serious eye damage/eye irritation	Category 1
Respiratory Sensitization	Category 1
Skin Sensitization	Category 1

Label elements

Emergency Overview

Signal Word
DANGER

Hazard statements
Fatal if swallowed

Harmful in contact with skin
 Harmful if inhaled
 Causes severe skin burns and eye damage
 May cause allergy or asthma symptoms or breathing difficulties if inhaled
 May cause an allergic skin reaction
 Toxic to aquatic life with long lasting effects

**Appearance**

Light Amber Clear

Physical State

Liquid

Odor

Slight Phenoxy

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Wear protective gloves/protective clothing/eye protection/face protection
 Use only outdoors or in a well-ventilated area
 Do not breathe dust/fume/gas/mist/vapors/spray
 In case of inadequate ventilation wear respiratory protection
 Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response

Specific treatment (see supplemental first aid instructions on this label)
 Immediately call a POISON CENTER or doctor/physician
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present .
 Immediately call a POISON CENTER or doctor/physician
 Call a POISON CENTER or doctor/physician if you feel unwell
 Wash contaminated clothing before reuse
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 If skin irritation or rash occurs: Get medical advice/attention
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician if you feel unwell
 Immediately call a POISON CENTER or doctor/physician
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
 Rinse mouth
 Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None known

Other Information

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS**Synonyms**

2,4-DB Dimethylamine Salt

Formula C14H18Cl2O3

Chemical name	CAS No.	Weight-%	North American Hazard Indicator
Dimethylamine Salt of 4-(2,4-Dichlorophenoxy) Butyric Acid	2758-42-1	23	True
Other Ingredients	N/A	77	False

4. FIRST AID MEASURES

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 center immediately.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Destroy contaminated shoes. Call a physician or poison control center immediately.
Inhalation	Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician or poison control center 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 center immediately.
Self-Protection of the First Aider	Use personal protective equipment as required. Avoid contact with eyes, skin and clothing.

Most important symptoms and effects, both acute and delayed

Signs and Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment as required. Avoid contact with eyes, skin 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 into any sewer, on the ground or into any body of water. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Should not be released into the environment.

Methods and material for containment and cleaning up

Methods for Clean-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.
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7. HANDLING AND STORAGE

Precautions for safe handling

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 eyes, skin and clothing. Avoid repeated exposure.
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Conditions for safe storage, including any incompatibilities

Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled 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.
Incompatible Materials	Strong Acids. Bases. Acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Exposure Guidelines</u>	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
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Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Dimethylamine Salt of 4-(2,4-Dichlorphenoxy) Butyric Acid 2758-42-1	-	-	-
Other Ingredients N/A	-	-	-

Appropriate engineering controls

Individual protection measures, such as personal protective equipment

Eye/Face Protection	Goggles. Face shield.
Skin and body protection	Use suitable eye protection and gloves.
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

Information on basic physical and chemical properties

Appearance	Light Amber Clear
Physical State	Liquid
Odor	Slight Phenoxy
Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	7.29	
Melting point / Freezing point	0 °C	Literary Reference
Boiling point / boiling range	No information available	
Flash Point	> 100 °C	Pensky-Marten CC (closed cup)
Evaporation Rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air	No information available	
Upper flammability limit	No information available	
Lower flammability limit	Not available	
Vapor Pressure	No information available	
Vapor Density	Not available	
Specific Gravity	1.086 g/ml@20°C	
Water Solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient: n-octanol/water	Not available	
Autoignition temperature °C	No Data Available	Estimated
Decomposition temperature	No Data Available	
Kinematic Viscosity	No information available	
Dynamic Viscosity	4.633 Centistokes@20°C	
Explosive Properties	No information available	
Oxidizing Properties	No information available	

Other Information

Softening Point	No information available
Molecular Weight	294.18
VOC content	No information available
Liquid Density	8.9 – 9.3 lb/Gal
Bulk density	No information available
Corrosion characteristics	No information available

10. STABILITY AND REACTIVITY

Reactivity	Not applicable.
Chemical Stability	Stable under normal conditions
Conditions to Avoid	Heat, flames and sparks.
Incompatible Materials	Strong Acids. 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

Product Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Dimethylamine Salt of 4-(2,4-Dichlorphenoxy) Butyric Acid	-	-	-
Other Ingredients	-	-	-

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

The following values are calculated based on chapter 3.1 of the GHS document .

Information on likely routes of exposure

Eyes	Corrosive to the eyes and may cause severe damage including blindness. Avoid contact with eyes.
Skin	Harmful in contact with skin. Causes burns. Avoid contact with skin.
Inhalation	Harmful by inhalation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Avoid breathing vapors or mists.
Ingestion	Fatal if swallowed. Do not take internally.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

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
Serious eye damage/irritation	No information available.
Skin Corrosion/Irritation	No information available.
Sensitization	May cause allergic skin reaction.
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.
Mutagenic Effects	No information available.
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 to other animals. These are considered to result from maternal toxicity.

STOT - single exposure No information available.

STOT - Repeated Exposure No information available.

Chronic Toxicity Avoid repeated exposure.

Target Organ Effects Repeated overexposure may cause effects to: Liver, Kidney, Heart, Thyroid, Adrenals, Blood, Stomach, Reduced body weight, Eyes, Skin.

Aspiration Hazard No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects
Avoid release to the environment

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Dimethylamine Salt of 4-(2,4-Dichlorophenoxy) Butyric Acid 2758-42-1	-	-	-	-
Other Ingredients N/A	-	-	-	-

Persistence/Degradability No information available.

Bioaccumulation/Accumulation No information available.

Mobility in Soil No information available.

Chemical name	log Pow =
Dimethylamine Salt of 4-(2,4-Dichlorophenoxy) Butyric Acid 2758-42-1	-
Other Ingredients N/A	-

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal Methods Contact waste disposal services. Dispose of in accordance to EPA Pesticide Label Instructions.

Contaminated Packaging Dispose of in accordance to EPA Pesticide Label Instructions.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

<u>MEX</u>	Not regulated
<u>ICAO</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG</u>	Not regulated
<u>RID</u>	Not regulated
<u>ADR</u>	Not regulated
<u>ADN</u>	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Does not comply
Canada (DSL)	Does not comply
EU (EINECS)	Does not comply
EU (ELINCS)	Does not comply
Japan (ENCS)	Does not comply
China (IECSC)	Does not comply
Korea (KECL)	Does not comply
Philippines (PICCS)	Does not comply
Australia (AICS)	Does not comply
Mexico INV	Does not comply
Taiwan INV	Does not comply

Chemical name	U.S.A. (TSCA)	Canada (DSL)	EU (EINECS)	EU (ELINCS)	
Dimethylamine Salt of 4-(2,4-Dichlorphenoxy) Butyric Acid	-	-	X	-	
Other Ingredients	-	-	-	-	
Component	Japan (ENCS)	China (IECSC)	Korea (KECL)	Philippines (PICCS)	Australia (AICS)
	-	-	-	-	-
	-	-	-	-	-
Chemical name	Mexico INV		Taiwan INV		
Dimethylamine Salt of 4-(2,4-Dichlorphenoxy) Butyric Acid 2758-42-1	-		-		
Other Ingredients N/A	-		-		

This material as a whole is exempt from the TSCA Inventory, FIFRA Regulated Pesticides, and Canadian PMRA Regulations.

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 Hazard Categories

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.

VOC content

This Product does not contain any VOCs

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

*State Regulations***California Proposition 65**

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

This product does not contain any State Right-to-Know chemicals.

U.S. EPA Label Information

EPA Pesticide Registration Number 2749-126

*Canada***WHMIS Statement**

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.

16. OTHER INFORMATION

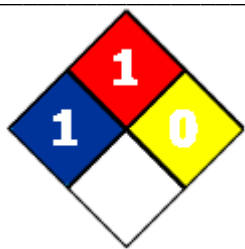
NFPA

Health 1

Flammability 1

Instability 0

Physical Hazard 0



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Revision Summary
Not available

Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet