

SECTION 1: Identification

Identification

Product form : Mixture
Trade name : Droptec™
Other means of identification : EPA Reg. No 71368-138

Recommended use and restrictions on use

Recommended use : Herbicide
Restrictions on use : All other uses not recommended above

Supplier

Nufarm Americas, Inc.
11901 South Austin Avenue
Alsip, IL 60803
United States
T 1-800-345-3330
www.nufarm.com

Emergency telephone number

Emergency number : For Hazardous Materials or Dangerous Goods Incident Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night: 1-800-424-9300 (Toll Free, USA) / 703-527-3887 (Virginia, USA)
CCN 16105

SECTION 2: Hazard(s) identification

Classification of the substance or mixture

GHS US classification

Acute toxicity (oral) Category 4	Harmful if swallowed
Serious eye damage/eye irritation Category 1	Causes serious eye damage
Skin sensitization, Category 1	May cause an allergic skin reaction
Specific target organ toxicity – Single exposure, Category 3,	May cause respiratory irritation
Respiratory tract irritation	
Full text of H statements : see section 16	

GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

Harmful if swallowed
May cause an allergic skin reaction
Causes serious eye damage
May cause respiratory irritation

Precautionary statements (GHS US) :

Avoid breathing mist, spray, vapors, gas.
Wash hands, forearms and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call a poison center or doctor if you feel unwell.

Rinse mouth.

If on skin: Wash with plenty of water.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a poison center or doctor.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

Call a poison center or doctor if you feel unwell.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Other hazards which do not result in classification

No additional information available

Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

Substances

Name	Product identifier	%	GHS US classification
Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid	CAS-No.: 94-75-7	500 g/L	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Acute 2, H401 Aquatic Chronic 3, H412
ACTIVE INGREDIENTS:			
2,4-Dichlorophenoxyacetic acid, dimethylamine salt*		42.02%	
2,4-Dichlorophenoxyacetic acid, monomethylamine salt*		9.95%	

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

Description of first aid measures

First-aid measures general	: Call a poison center/doctor/physician if you feel unwell. First aider: Pay attention to self-protection. Never give anything by mouth to an unconscious person. Give artificial respiration if necessary. Induce artificial respiration with mask fitted with one-way valve or other suitable device but not mouth-to-mouth.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. If experiencing respiratory symptoms: Call a poison center or a doctor.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately transport the casualty to an eye doctor / hospital. Continue rinsing during the transport with isotonic saline solution, alternatively with water.
First-aid measures after ingestion	: Rinse mouth and spit the fluids out. Drink water in small sips. Do NOT induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Call a poison center/doctor/physician if you feel unwell.

Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: Irritation to the upper airways.
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Symptoms/effects after skin contact	: May cause an allergic skin reaction. Repeated or prolonged contact may cause skin irritation.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Harmful if swallowed. Ingestion may cause nausea and vomiting. May cause irritation to the digestive tract.
Most Important Symptoms/Effects	: Causes serious eye damage. May cause an allergic skin reaction.

Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Dry chemical, CO2, dry sand, or alcohol-resistant foam.
Unsuitable extinguishing media	: Do not use a heavy water stream.

Specific hazards arising from the chemical

Fire hazard	: Not flammable. Presents no particular fire or explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Hydrogen chloride. Phosgene.

Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. Use extinguishing media appropriate for surrounding fire. Use water spray or fog for cooling exposed containers. Move containers from fire area if it can be done without personal risk.
Protection during firefighting	: Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

General measures	: Avoid all personal contact including breathing in the mist, spray, vapors, gas. Do not take actions involving personal risks. Absorb spillage to prevent material-damage. Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.
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For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Evacuate the danger area. If outdoors, move to an area upwind of the danger area. If possible without taking personal risks, remove ignition sources, ventilate area. Avoid breathing mist, spray, vapors, gas. Avoid contact with skin and eyes. Prevent other non-emergency personnel from entering the danger area.

For emergency responders

Protective equipment	: Wear the recommended personal protective equipment.
Emergency procedures	: Evacuate personnel to a safe area. Ventilate spillage area. Stop leak if safe to do so.

Environmental precautions

Follow product instructions and best practices for use to avoid misapplications of the product. Do not negligently allow product to enter off-target drains, sewers, or ground water.

Methods and material for containment and cleaning up

For containment	: Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
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Methods for cleaning up : Take up liquid spill into absorbent material. Contaminated absorbent material may pose the same hazard as the spilt product. Decontaminate surfaces and equipment with water and detergent. Until a sufficient level of dilution is achieved, the decontamination water may pose the same hazards as the product. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Precautions for safe handling : Use only outdoors or in a well-ventilated area. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe mist, spray, vapors, gas. Do not get in eyes, on skin, or on clothing.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace.

Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a cool, dry and well-ventilated area away from incompatible substances. Do not store for prolonged periods in direct sunlight. Keep container closed when not in use.

Incompatible products : Oxidizing agents.

Packaging materials : Store always product in container of same material as original container.

SECTION 8: Exposure controls/personal protection

Control parameters

Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid (94-75-7)

USA - ACGIH - Occupational Exposure Limits

Local name	2,4-D
ACGIH OEL TWA	10 mg/m ³ (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: Thyroid eff; kidney tubular dam. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2024

USA - OSHA - Occupational Exposure Limits

Local name	2,4-D (Dichlorophen-oxyacetic acid)
OSHA PEL TWA	10 mg/m ³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Local exhaust and general ventilation must be adequate to meet exposure standards.

Environmental exposure controls : Take measures to reduce or limit air emissions and releases to soil and the aquatic environment.

Individual protection measures/Personal protective equipment

Personal protective equipment:

Personal protective equipment should be chosen according to national standards and in discussion with the supplier of the protective equipment. Wear recommended personal protective equipment.

Hand protection:
Chemically impervious gloves as described by OSHA's hand protection regulations in 29 CFR 1910.138 . The following materials are suitable for protective gloves: Polyvinylchloride (PVC)
Eye protection:
Chemical goggles or face shield
Skin and body protection:
Chemical resistant apron. Wear suitable protective clothing. Long sleeved protective clothing. Chemical resistant safety shoes
Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	: Liquid.
Appearance	: Liquid.
Color	: Clear Light brown
Odor	: Amine-like
Odor threshold	: No data available
pH	: 6.8 (1% Solution)
Melting point	: < 0 °C
Freezing point	: No data available
Boiling point	: 100 °C
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

SECTION 10: Stability and reactivity

Reactivity:	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions of use.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: None under recommended storage and handling conditions (see section 7). Incompatible materials.
Incompatible materials	: Oxidizing agents.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates : Carbon monoxide. Carbon dioxide. Hydrogen chloride. Phosgene.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified pH: 6.8 (1% Solution)
Serious eye damage/irritation	: Causes serious eye damage. pH: 6.8 (1% Solution)
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid

IARC group	2B - Possibly carcinogenic to humans
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Symptoms/effects after inhalation	: Irritation to the upper airways.
Symptoms/effects after skin contact	: May cause an allergic skin reaction. Repeated or prolonged contact may cause skin irritation.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Harmful if swallowed. Ingestion may cause nausea and vomiting. May cause irritation to the digestive tract.
Most Important Symptoms/Effects	: Causes serious eye damage. May cause an allergic skin reaction.

SECTION 12: Ecological information

Toxicity

Ecology - general	: Harmful to aquatic life with long lasting effects. To protect aquatic organisms/non-target plants do not apply on impermeable surfaces such as asphalt, concrete, cobblestones, railway tracks and other situations with a high risk of run-off.
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Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid

LC50 - Fish [1]	100 mg/l
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Droptec™

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid	
EC50 - Crustacea [1]	1.4 mg/l

Persistence and degradability

No additional information available

Bioaccumulative potential

No additional information available

Mobility in soil

No additional information available

Other adverse effects

No additional information available

SECTION 13: Disposal considerations

Disposal methods

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Dispose of this material and its container at hazardous or special waste collection point. Refer to all applicable national, international and local regulations or provisions.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

DOT	IMDG	IATA
UN number		
Not regulated for transport		
Proper Shipping Name		
Not regulated	Not regulated	Not regulated
Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
Packing group		
Not regulated	Not regulated	Not regulated
Environmental hazards		
Not regulated	Not regulated	Not regulated
No supplementary information available		

Special precautions for user

DOT
Not regulated

IMDG
Not regulated

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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

IATA

Not regulated

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid	CAS-No. 94-75-7	500 g/L%
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Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid (94-75-7)

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ	100 lb
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15.2. International regulations

CANADA

Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid (94-75-7)

Listed on the Canadian DSL (Domestic Substances List)

water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid (94-75-7)

Listed on IARC (International Agency for Research on Cancer)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

water (7732-18-5)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-phrases	
H302	Harmful if swallowed
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H335	May cause respiratory irritation
H401	Toxic to aquatic life
H412	Harmful to aquatic life with long lasting effects

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.