



Safety Data Sheet

Preparation Date 28-Apr-2015

Revision date 10-Mar-2025

Revision Number: 11

1. Identification of the Substance/Preparation and of the Company/Undertaking

Identification of the product

Product Description

Hydrothol® Granular Aquatic Algaecide and Herbicide

Other means of identification

Internal SDS code

12-172

Synonyms

Hydrothol 191 Granular Aquatic Algicide and Herbicide

Registration number(s)

70506-174

Recommended use of the chemical and restrictions on use

Recommended use

Aquatic. Algaecide. - . Herbicide.

Uses advised against

Activities contrary to label recommendation

Details of the Supplier of the Safety Data Sheet

Supplier Address

UPL NA Inc.

PO Box 12219

Research Triangle Park, NC 27709-12219

Emergency telephone number

Company Phone Number

1-800-438-6071

Emergency telephone number

Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887

Medical: Rocky Mountain Poison and Drug Safety (866) 673-6671 (24hrs)

2. Hazards Identification

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral

Category 4

Label elements

EMERGENCY OVERVIEW

WARNING

Hazard Statements

HARMFUL IF SWALLOWED



Appearance grey brown

Physical state solid

Odor Solvent-like

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)

OTHER INFORMATION

- No information available

3. Composition/information on Ingredients

Synonyms Hydrothol 191 Granular Aquatic Algicide and Herbicide.

| Chemical name | CAS No | Weight-% |
|---|------------|----------|
| Mono(N,N-dimethylalkylamine)salt of endothall | 66330-88-9 | 11 |

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. First aid measures

FIRST AID MEASURES

| | |
|---------------------|--|
| Eye contact | Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. |
| Skin contact | 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. Seek immediate medical attention/advice. Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. |
| Inhalation | If breathing is irregular or stopped, administer artificial respiration. MAY CAUSE ALLERGIC RESPIRATORY REACTION. Call a poison control center or doctor for further treatment advice. Move to fresh air. Call a physician or poison control center immediately. Artificial respiration and/or oxygen may be necessary. |
| Ingestion | Call a physician or poison control center immediately. May produce an allergic reaction. Clean mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention/advice. Do not induce vomiting without medical advice. |

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and Effects Burning feeling and temporary redness.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician No information available. Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media no data available.

Specific hazards arising from the chemical

No information available.

Hazardous combustion products Extreme temperatures convert Endothall product to endothall anhydride which is a strong vesicant causing blistering of eyes, mucous membranes and skin.

Explosion data

Protective equipment and precautions for firefighters

Use personal protective equipment. 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 Avoid contact with skin, eyes and clothing. Wear protective gloves/protective clothing and eye/face protection.

Environmental Precautions

Environmental precautions Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for Clean-Up Sweep up and shovel into suitable containers for disposal. Keep in suitable and closed containers for disposal. Shovel or sweep up.

7. Handling and Storage

Precautions for safe handling

Handling Avoid dust formation. Avoid breathing dust. Keep out of reach of children. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin and eyes. Empty containers may contain hazardous residues.

Conditions for safe storage, including any incompatibilities

Storage Store in an area where cross-contamination with pesticides, fertilizers, food or feed could not occur. Keep tightly closed in a dry and cool place. Keep in properly labelled containers. Keep containers tightly closed in a cool, well-ventilated place.

incompatible materials No information available.

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 Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Personal protective equipment

Eye/Face Protection
Skin protection
Respiratory protection

Goggles.
Rubber gloves. Wear protective gloves/clothing.
Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134.

General hygiene considerations

Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | | |
|---|---|------------------------|
| Appearance | grey brown | |
| Physical state | solid | |
| Odor | Solvent-like | |
| color | No information available | |
| <u>Property</u> | <u>VALUES</u> | <u>Remarks/ Method</u> |
| pH | 4.6 | None known |
| Melting point/freezing point | | None known |
| Boiling Point/Range | | None known |
| Flash Point | No information available | None known |
| Evaporation Rate | | None known |
| Flammability (solid, gas) | | None known |
| Vapor pressure | 2.09 X 10 ⁻⁵ mmHg @25 C(Endothal salt) | |
| Specific gravity | | None known |
| Bulk density | | None known |
| Water solubility | | None known |
| Solubility in Other Solvents | Dispersible in water | None known |
| Partition coefficient: n-octanol/water | | None known |
| Autoignition temperature | | None known |
| Decomposition temperature | | None known |
| Viscosity | | None known |

9.2 OTHER INFORMATION- NONE

10. Stability and Reactivity

Reactivity

no data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Avoid dust formation. Not known.

incompatible materials

No information available.

Hazardous decomposition products

Extreme temperatures may convert endothall product to endothall anhydride, a strong vesicant, causing blistering of eyes, mucous membranes and skin.

11. Toxicological Information

Information on Likely Routes of Exposure

Product information

Single exposure studies indicate: Oral - Slightly toxic to rats (LD50 1,540 mg/kg)
Dermal - Practically non-toxic to rabbits (LD50 >10,000 mg/kg)
Inhalation - Practically non-toxic to rats (4 hr LC50 5.32 mg/l)
Skin irritation - Severely irritating
Eye irritation - Severely irritating Endothall
Intentional swallowing of 40 ml led to death within 12 hours. Skin allergy was observed in guinea pigs following repeated exposure. Repeated dietary administration (Via gelatin capsules) produced vomiting, diarrhea, sluggish movements, and liver, kidney and blood effects in dogs. Long-term dietary administration to rats and mice produced effects in the glandular stomach. High mortality rates and intestinal tumors considered to be secondary to the effects in the stomach were observed in mice. Long-term application to the skin of mice produced no tumors. No birth defects were observed in the offspring of rats exposed orally during pregnancy, even at dosages that produced adverse effects on the mothers. Skeletal abnormalities were observed in the offspring of rabbits and mice exposed during pregnancy, but only at dosages that produced adverse effects in the mothers. No genetic changes were observed in tests using bacteria, animal cells or animals.

Inhalation

May cause irritation of respiratory tract. Based on available data, the classification criteria are not met.

Eye contact

May cause irreversible damage to eyes.

Skin contact

Based on available data, the classification criteria are not met. Causes skin irritation.

Ingestion

HARMFUL IF SWALLOWED.

Information on Toxicological Effects

Symptoms

No information available.

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

Sensitization

No information available.

Mutagenic effects

no data available.

Carcinogenicity

There are no known carcinogenic chemicals in this product.

Reproductive effects

Not Available.

STOT - Single Exposure

no data available.

STOT - Repeated Exposure

no data available.

Aspiration hazard

No information available.

Numerical Measures of Toxicity - Product information

LD50 Oral

1540 mg/kg (rat)

LD50 Dermal

> 10000 mg/kg (rat)

LC50 Inhalation

LC50/inhalation/4h/rat = 5.32 mg/l

12. Ecological Information

ecotoxicity

Endothall mono amine salt:

Acute contact toxicity Honey Bee

Practically non toxic

Acute Toxicity Avian

Northern Bobwhite Quail LD50

736 mg/kg

Acute Toxicity Freshwater Fish EC50

Bluegill sunfish 0.94 ppm

Rainbow trout 0.56 ppm

Cutthroat trout 0.18 ppm

Channel catfish 0.49 ppm

Acute Toxicity Freshwater Invertebrates EC50

Daphnia magna 0.36 ppm (48 hr)

Grasshopper 0.05 ppm (96hr)

Scud 2.0 ppm (48hr)

Acute Toxicity Marine Invertebrates (flow thru) EC50 Mysid shrimp 2.2 ppm (96 hr)

Acute Toxicity Marine Fish (Flow thru) EC50

Sheepshead minnow 3.5 ppm (96 hr)

Persistence/Degradability

no data available.

Bioaccumulation/ Accumulation

No information available.

Other Adverse Effects

no data available

13. Disposal Considerations

Waste Treatment Methods

Waste Disposal Method

Pesticide wastes can be hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If the wastes cannot be disposed of by use or according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Contaminated packaging

Refer to product label.

14. Transport Information

DOT

When shipped domestically by highway in non-bulk containers this product can be shipped as not regulated.

When shipped in bulk, by vessel, or internationally refer to the IMDG shipping description:

TDG

When shipped in Canada domestic highway non-bulk this product can be shipped as Not regulated as per TDG 1.45.1

In bulk, by vessel or internationally - use IMDG description

IATA

| | |
|-----------------------------|--|
| UN/ID no | UN3077 |
| Proper shipping name | Environmentally hazardous substances, solid, n.o.s (Monodimethylalkylamine salt of endothal) |
| Hazard class | 9 |
| Packing group | PG III |
| Description | Marine pollutant |

IMDG

| | |
|------------------------------|--|
| | Single or inner packaging less than 5L (liquid) or 5 kg net (solids) are excepted from the Dangerous Goods regulations (IMDG 2.10.2.7) |
| UN/ID no | UN3077 |
| Proper shipping name | Environmentally hazardous substances, solid n.o.s. (Monodimethylalkylamine salt of endothal) |
| Hazard class | 9 |
| Packing group | PG III |
| Environmental hazards | Marine pollutant |

15. Regulatory Information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

signal word DANGER

Ventilation Control PESTICIDE APPLICATORS & WORKERS THESE WORKERS MUST REFER TO PRODUCT LABELING AND DIRECTIONS FOR USE IN ACCORDANCE WITH EPA WORKER PROTECTION STANDARD 40 CFR PART 170.

Keep out of Reach of Children. Causes irreversible eye damage. May be fatal if swallowed. Toxic to fish and aquatic invertebrates.

International Inventories

| | |
|-----------------|-------------|
| USINV | Not present |
| DSL/NDSL | Not present |
| EINECS/ | Not Present |
| ELINCS | |
| ENCS | Not Present |
| China | Not Present |
| KECL | Not Present |
| PICCS | Not Present |
| AICS | Not Present |
| TSCA | Not Present |

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

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.

CERCLA

Not applicable

CERCLA

RCRA

Pesticide Information

State Regulations

State Right-to-Know

International regulations

U.S. EPA Label information

EPA Pesticide registration number 70506-174

16. Other Information

NFPA

HEALTH 3

flammability 0

Instability 0

Physical hazard -

Preparation Date

28-Apr-2015

Revision date

10-Mar-2025

Revision Summary

Update section 14 updated technical name

Disclaimer

UPL NA Inc. believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with other materials or in any process. Further, since the conditions and methods of use are beyond the control of UPL NA Inc. and UPL NA Inc. expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

End of SDS