



United States Material Safety Data Sheet

The Ortho Group
P.O. Box 190
Marysville, Ohio 43040
United States

24 h. EMERGENCY TELEPHONE NUMBER
CHEMTREC (U.S.) 1-800-424-9300
CHEMTREC (International) 1-703-527-3887
Non-Emergency Calls 1-937-644-0011

ORTHO WEED B GON WEED KILLER FOR LAWNS CONCENTRATE2

1. Product and company identification

MSDS # : 320000007037
EPA Registration Number: : 228-553-239

2. Hazards identification

Physical state : liquid [Solution]
Color : Clear Yellow
Odor : Characteristic
Signal word : Warning
Precautionary measures : Do not ingest. Wash thoroughly after handling.
OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
Emergency Overview : Keep out of reach of children and pets.
Causes substantial but temporary eye injury.
Harmful if swallowed.
Harmful if absorbed through the skin.
Do not get in eyes, or on skin or clothing.
Do not allow people or pets to enter the treated area until spray has dried.

Potential acute health effects

Inhalation : No known significant effects or critical hazards.
Ingestion : Harmful if swallowed.
Skin : No known significant effects or critical hazards.
Eyes : No known significant effects or critical hazards.
Target organs : None known.

Potential chronic health effects : See section 11 for more information.

Over-exposure signs/symptoms

Inhalation : No specific data.
Ingestion : No specific data.
Skin : No specific data.

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Eyes : No specific data.
 Medical conditions aggravated : None known.
 by over-exposure
 See toxicological information (Section 11)

3. Composition/information on ingredients

Name	CAS number	%
dimethylammonium 2,4-dichlorophenoxyacetate	2008-39-1	>5 - <=10

4. First aid measures

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention immediately.

Ingestion : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Notes to physician : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product : In a fire or if heated, a pressure increase will occur and the container may burst.

Extinguishing media

Suitable : Use an extinguishing agent suitable for the surrounding fire.
Not suitable : None known.

Special exposure hazards : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous thermal decomposition products : No specific data.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material.

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- Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Occupational exposure limits

No exposure standard allocated.
Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference

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- should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Eyes** : Protective eyewear is not required, but may be used in situations where contact is expected.
- Skin** : No special protective clothing is required.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

- Physical state** : liquid [Solution]
- Flash point** : Not Applicable
- Burning time** : Not Applicable
- Auto-ignition temperature** : Not Applicable
- Flammable limits** : Not Applicable
- Density** : 8.62 lb/gal
- Color** : Clear Yellow
- Odor** : Characteristic
- pH** : 8
- Boiling/condensation point** : Not Applicable
- Melting/freezing point** : Not Applicable
- Relative density** : 1.035

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Vapor pressure	:	Not Applicable
Vapor density	:	Not Applicable
Volatility	:	Not Applicable
Odor threshold	:	Not Applicable
Evaporation rate	:	Not Applicable
Viscosity	:	Not Applicable
Solubility	:	Not Applicable
Solubility in water	:	Not Applicable

10. Stability and reactivity

Chemical stability	:	The product is stable.
Conditions to avoid	:	No specific data.
Incompatible materials	:	No specific data.
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
salts of 2,4-D	LD50 Oral	Rat	625 mg/kg	-
salts of 2,4-D	TDL0 Oral	Rat	22.8 mg/kg	-

Conclusion/Summary No additional remark.

Irritation/Corrosion

Skin	May cause skin irritation.
Eyes	May cause eye irritation.
Respiratory	No results available.

Sensitizer

Conclusion/Summary	Skin	No results available.
	Respiratory	No results available.

Chronic toxicity

Conclusion/Summary No known significant effects or critical hazards.

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Conclusion/Summary	No known significant effects or critical hazards.			

Mutagenicity

Conclusion/Summary No known significant effects or critical hazards.

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Conclusion/Summary	No known significant effects or critical hazards.			

Reproductive toxicity

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Conclusion/Summary : No known significant effects or critical hazards.

12. Ecological information

Ecotoxicity : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
dimethylammonium 2,4-dichlorophenoxyacetate			
	Acute LC50 > 100 mg/l Fresh water	Fish - Rainbow trout, donaldson trout	4 d

Conclusion/Summary : No known significant effects or critical hazards.

Persistence/degradability

Conclusion/Summary : No known significant effects or critical hazards.

Partition coefficient: n-octanol/water : No known significant effects or critical hazards.

Other adverse effects : This product may be hazardous to aquatic invertebrates

13. Disposal considerations

Waste disposal : Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. Transport information

<u>Regulatory information</u>	<u>UN no.</u>	<u>Proper shipping name</u>	<u>Class</u>	<u>PG*</u>	<u>Note</u>
DOT		Not Regulated			
IATA (C)		Not Regulated			
IATA (P)					
IMDG		Not Regulated			
TDG		Not Regulated			
PG* : Packing group					

15. Regulatory information

United States

U.S. Federal regulations : **United States - TSCA 12(b) - Chemical export notification:** None of the components are listed.
United States - TSCA 8(a) - Inventory update rule (IUR): Not determined
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.

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SARA 302/304/311/312 hazardous chemicals: No products were found.
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.
United States - EPA Clean water act (CWA) section 311 - Hazardous substances: Listed dicamba

United States inventory (TSCA 8b) : All components are listed or exempted.

State regulations

- Massachusetts :** None of the components are listed.
- New York :** None of the components are listed.
- New Jersey :** None of the components are listed.
- Pennsylvania :** None of the components are listed.
- California Prop. 65 :** Not listed

International regulations

Canada inventory : At least one component is not listed.

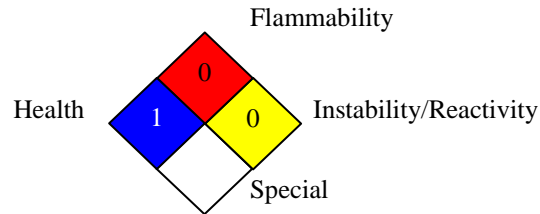
International lists : **Australia inventory (AICS):** Not determined.
Taiwan inventory (CSNN): Not determined.
Japan inventory: Not determined.
China inventory (IECSC): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Malaysia Inventory (EHS Register): Not determined.
Korea inventory: Not determined.
Philippines inventory (PICCS): Not determined.

16.Other information

Hazardous Material Information System (U.S.A.) :

Health	1
Flammability	0
Physical hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868. The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.):

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