



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 MAX GARDEN DISEASE CONTROL CONCENTRATE

1. Product and company identification

MSDS # : 320000000353  
EPA Registration Number: : 239-2522

2. Hazards identification

Physical state : liquid[]  
Color : White  
Odor : Characteristic  
Signal word : WARNING!  
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
Emergency Overview : Causes eye irritation.  
Causes skin irritation.  
Harmful if inhaled.  
Do not get in eyes, or on skin or clothing.  
Avoid breathing vapor or mist.  
Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.  
Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Potential acute health effects

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.  
Ingestion : No known significant effects or critical hazards.  
Skin : May cause sensitization by skin contact.  
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 : Adverse symptoms may include the following:

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irritation  
redness  
**Eyes** : No specific data.  
**Medical conditions aggravated by over-exposure** : Pre-existing skin disorders may be aggravated by over-exposure to this product.  
 See toxicological information (Section 11)

### 3. Composition/information on ingredients

Name	CAS number	%
1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-	1897-45-6	>15 - <=30

### 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** : In case of inhalation of decomposition products in a fire, symptoms may be delayed.

### 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** : Decomposition products may include the following materials:  
 carbon dioxide  
 carbon monoxide  
 nitrogen oxides  
 halogenated compounds

**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.

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## 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. 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. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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

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**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 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** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants 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. Contaminated work clothing should not be allowed out of the workplace. 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.
- Skin** : Wear long-sleeved shirt, long pants, shoes with socks. Remove and wash contaminated clothing before reuse.
- 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
- Flash point** : Not Applicable
- Burning time** : Not Applicable
- Auto-ignition temperature** : Not Applicable

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<b>Flammable limits</b>	:	Not Applicable
<b>Density</b>	:	9.66 lb/gal
<b>Color</b>	:	White
<b>Odor</b>	:	Characteristic
<b>pH</b>	:	6.5
<b>Boiling/condensation point</b>	:	Not Applicable
<b>Melting/freezing point</b>	:	Not Applicable
<b>Relative density</b>	:	1.16
<b>Vapor pressure</b>	:	Not Applicable
<b>Vapor density</b>	:	Not Applicable
<b>Volatility</b>	:	Not Applicable
<b>Odor threshold</b>	:	Not Applicable
<b>Evaporation rate</b>	:	Not Applicable
<b>Viscosity</b>	:	Not Applicable
<b>Solubility</b>	:	Not Applicable
<b>Solubility in water</b>	:	Not Applicable

## 10. Stability and reactivity

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

## 11. Toxicological information

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Product	LD50 Oral	Rat	> 17,400 mg/kg	-
Product	LD50 Inhalation	Rat	> 7.16 mg/l	4 h
Product	LD50 Dermal	Rat	> 5,800 mg/kg	-

Conclusion/Summary Toxic to humans or animal life.

### Irritation/Corrosion

Skin	Mildly irritating
Eyes	Irritating
Respiratory	May cause respiratory irritation

### Sensitizer

<b>Conclusion/Summary</b>	Skin	May cause skin sensitization.
	Respiratory	Not 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.			

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**Classification**

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
chlorothalonil (ISO)		2B				

**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**

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

**12. Ecological information**

**Ecotoxicity** : This pesticide is toxic to aquatic invertebrates and wildlife.

**Aquatic ecotoxicity**

Product/ingredient name	Result	Species	Exposure
1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-			
	Acute LC50 0.0143 mg/l Fresh water	Fish - Rainbow trout, donaldson trout	4 d
	Acute LC50 0.0171 mg/l Fresh water	Fish - Rainbow trout, donaldson trout	4 d
	Acute EC50 0.0068 mg/l Fresh water	Aquatic plants - Green algae	3 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** : No known significant effects or critical hazards.

**13. Disposal considerations**

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

**14. Transport information****Regulatory**

information	UN no.	Proper shipping name	Class	PG*	Note
DOT		Not Regulated			Consumer commodity

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<u>Regulatory information</u>	<u>UN no.</u>	<u>Proper shipping name</u>	<u>Class</u>	<u>PG*</u>	<u>Note</u>
IATA (C)	3082	Environmentally hazardous substance, liquid, n.o.s. (Chlorothalonil)	9	(, III)	Limited Quantities
IATA (P)	3082	Environmentally hazardous substance, liquid, n.o.s. (Chlorothalonil)	9	(, III)	Limited Quantities
IMDG	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Chlorothalonil)	9	(, III)	Limited Quantities
TDG		Not Regulated			Consumer commodity

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.
- SARA 302/304/311/312 hazardous chemicals:** No products were found.
- SARA 311/312 MSDS distribution - chemical inventory - hazard identification:** 1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-: Del
- Clean Air Act (CAA) 112 accidental release prevention:** No products were found.

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

### State regulations

**Massachusetts** : The following components are listed: 1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

**New York** : None of the components are listed.

**New Jersey** : The following components are listed: 1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

**Pennsylvania** : The following components are listed: 1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

**California Prop. 65** : WARNING: This product contains a chemical known to the State of California to cause cancer.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage
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				<b>level</b>
1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-	Yes.	No.	200 µg/day	No.

**International regulations**

- Canada inventory** : At least one component is not listed.
- International lists** :
  - Australia inventory (AICS):** Not determined.
  - Japan inventory:** At least one component is not listed.
  - China inventory (IECSC):** At least one component is not listed.
  - Korea inventory:** At least one component is not listed.
  - New Zealand Inventory of Chemicals (NZIoC):** At least one component is not listed.
  - Philippines inventory (PICCS):** At least one component is not listed.
  - Taiwan inventory (CSNN):** Not determined.
  - Malaysia Inventory (EHS Register):** Not determined.

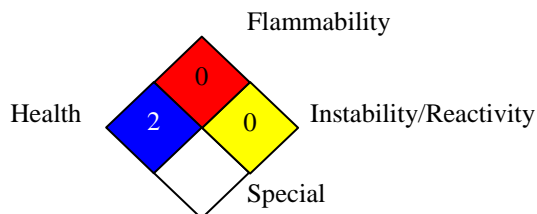
**16. Other information**

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

<b>Health</b>	1
<b>Flammability</b>	0
<b>Physical hazards</b>	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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