



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 HOME DEFENSE MAX BEDBUG KILLER

1. Product and company identification

MSDS # : 320000002388
EPA Registration Number: : 1021-1767-239

2. Hazards identification

Physical state : liquid [aerosol]
Color : White.
Signal word : CAUTION!
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Emergency Overview Harmful if absorbed through the skin.
Avoid contact with skin, eyes or clothing.
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 : Toxic in contact with skin.
Eyes : No known significant effects or critical hazards.
Target organs : Contains material which causes damage to the following organs:
central nervous system (CNS)

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

Over-exposure signs/symptoms

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
Ingestion : No specific data.
Skin : No specific data.
Eyes : Adverse symptoms may include the following:
irritation
redness

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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	%
Propane, 2-methyl-	75-28-5	>5 - <=10
Distillates (petroleum)	64742-47-8	>1 - <=3
4,7-Methano-1H-isoindole-1,3(2H)-dione, 2-(2-ethylhexyl)-3a,4,7,7a-tetrahydro-	113-48-4	>1 - <=3

4. First aid measures

- Eye contact** : Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- Skin contact** : Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
- Inhalation** : Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
- Ingestion** : Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Never give anything by mouth to an unconscious person.

5. Fire-fighting measures

- Flammability of the product** : In a fire or if heated, a pressure increase will occur and the container may burst. Bursting aerosol containers may be propelled from a fire at high speed.

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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
- 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

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- Personal precautions** : Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : No specific hazard.

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.

7. Handling and storage

- Handling** : Do not use near heat, sparks or open flame. Avoid inhalation or contact with skin, eyes or clothing. Do not puncture or incinerate. Keep out of reach of children.
- Storage** : Store in original container in a cool, dry, well-ventilated area inaccessible to children and pets. Do not contaminate food or feedstuffs.

8. Exposure controls/personal protection

Occupational exposure limits

Ingredient	Exposure limits
Propane, 2-methyl-	NIOSH REL (1994-06-01) Time Weighted Average (TWA) 1,900 mg/m3 , 800 ppm
Distillates (petroleum)	ACGIH TLV (2003-01-01) Notes: Skin contact does contribute to exposure. Confirmed animal carcinogen with unknown relevance to humans. Refers to Appendix A -- Carcinogens. ACGIH 2003 Adoption Application restricted to conditions in which there are negligible aerosol exposures. TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 200 mg/m3

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.
- Engineering measures** : Use adequate ventilation to keep the airborne concentrations below the recommended exposure standard.
- Hygiene measures** : Wash thoroughly with soap and water after handling. Remove and launder contaminated clothing before reuse.

Personal protection

- Respiratory** : No special respiratory protection required. If ventilation is inadequate to

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	keep the airborne concentrations below the recommended exposure standard wear appropriate respiration protection.
Hands	: Protective gloves are not required, but may be used in situations were significant contact is expected.
Eyes	: Protective eyewear is not required, but may be used in situations were contact is expected.
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 [aerosol]
Flash point	: Not Applicable
Burning time	: Not Applicable
Auto-ignition temperature	: Not Applicable
Flammable limits	: Not Applicable
Density	: 8.25 lb/gal
Color	: White.
Odor	: Not Applicable
pH	: 7.4
Boiling/condensation point	: Not Applicable
Melting/freezing point	: Not Applicable
Relative density	: Not Applicable
Vapor pressure	: Not Applicable
Vapor density	: Not Applicable
Volatility	: Not Applicable
Odor threshold	: Not Applicable
Evaporation rate	: Not Applicable
Viscosity	: Dynamic: 5 cPs
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
Product	LD50 Oral	Rat	> 5,000 mg/kg	-
Product	LC50 Inhalation	Rat	> 2 mg/l	4 h

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Product LD50 Dermal Rat > 2,000 mg/kg -

Conclusion/Summary Very low toxicity to humans or animals.

Irritation/Corrosion

Skin Slight
Eyes Mildly irritating
Respiratory May cause respiratory irritation

Sensitizer

Conclusion/Summary Skin Not sensitizing
Respiratory Not sensitizing - based on the individual components.

Chronic toxicity

Conclusion/Summary Not available.

Carcinogenicity

Conclusion/Summary Not available.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Distillates (petroleum)	A3					

Mutagenicity

Conclusion/Summary Not available.

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Conclusion/Summary	Not available.			

Reproductive toxicity

Conclusion/Summary Not available.

12. Ecological information

Ecotoxicity : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
4,7-Methano-1H-isoindole-1,3(2H)-dione, 2-(2-ethylhexyl)-3a,4,7,7a-tetrahydro-			
	Acute LC50 1.4 mg/l Fresh water	Fish - Rainbow trout, donaldson trout	4 d
	Acute EC50 2.3 mg/l Fresh water	Aquatic invertebrates. Water flea	2 d

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

Persistence/degradability

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

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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

<u>Regulatory information</u>	<u>UN no.</u>	<u>Proper shipping name</u>	<u>Class</u>	<u>PG*</u>	<u>Note</u>
DOT	1950	Aerosols non-flammable, (each not exceeding 1 L capacity) ()	2.2	(,)	
IATA (C)	1950	Aerosols, non-flammable	2.2	(,)	
IATA (P)	1950	Aerosols, non-flammable	2.2	(,)	
IMDG	1950	AEROSOLS	2.2	(,)	
TDG	1950	AEROSOLS non-flammable	2.2	(,)	

PG* : Packing group

15. Regulatory information

United States

U.S. Federal regulations : **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: Propane, 2-methyl-: Fire hazard - flammable, combustible liquid, pyrophoric, Pre Distillates (petroleum): Del 4,7-Methano-1H-isoindole-1,3(2H)-dione, 2-(2-ethylhexyl)-3a,4,7,7a-tetrahydro-: Acu, Del
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: No products were found.
Clean Air Act (CAA) 112 accidental release prevention: The following components are listed: Propane, 2-methyl-
Clean Air Act (CAA) 112 regulated flammable substances: The following components are listed: Propane, 2-methyl-
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

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

State regulations

Massachusetts : The following components are listed: Propane, 2-methyl-

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- New York : None of the components are listed.
- New Jersey : The following components are listed: Propane, 2-methyl-
- Pennsylvania : The following components are listed: Propane, 2-methyl-
- California Prop. 65 : Not listed.

International regulations

- Canada inventory : At least one component is not listed.
- International lists :
 - Australia inventory (AICS):** All components are listed or exempted.
 - New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.
 - China inventory (IECSC):** All components are listed or exempted.
 - Japan inventory:** Not determined.
 - Korea inventory:** Not determined.
 - Philippines inventory (PICCS):** Not determined.

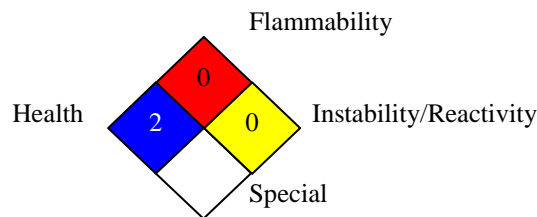
16. Other information

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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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended

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classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

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Notice to reader

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