



United States  
Material Safety Data Sheet

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

SDS 320000002388

ORTHO HOME DEFENSE MAX BEDBUG KILLER

## Section 1. Identification

**GHS product identifier** : ORTHO HOME DEFENSE MAX BEDBUG KILLER  
**Product type** : Pesticide  
**SDS #** : 320000002388  
**EPA Registration Number:** : 1021-1767-239

**Relevant identified uses of the substance or mixture and uses advised against**

Use only in accordance with label directions.

## Section 2. Hazards identification

This product is regulated by the Environmental Protection Agency (EPA) for label precautionary text see Section 15.

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
**Classification of the substance or mixture** : ACUTE TOXICITY (dermal) - Category 4  
AEROSOLS - Category 3

**GHS label elements**

**Hazard pictograms** :



**Signal word** : Warning

**Hazard statements** : Harmful in contact with skin.  
Pressurized container: may burst if heated.

**Precautionary statements**

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<b>General</b>	:	Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
<b>Prevention</b>	:	Wear protective gloves. Wear protective clothing.
<b>Response</b>	:	IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Wash contaminated clothing before reuse.
<b>Storage</b>	:	Not applicable.
<b>Disposal</b>	:	Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Supplemental label elements</b>	:	None known.
<b>Hazards not otherwise classified</b>	:	None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	:	Mixture
<b>Chemical name</b>	:	Not available.
<b>Other means of identification</b>	:	Not available.

Ingredient name	%	CAS number
Propane, 2-methyl-	10 - 20	75-28-5
Distillates (petroleum), hydrotreated light	3 - 7	64742-47-8

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**Occupational exposure limits, if available, are listed in Section 8.**

## Section 4. First aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
<b>Inhalation</b>	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.
<b>Skin contact</b>	:	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
<b>Ingestion</b>	:	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.

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Get medical attention if adverse health effects persist or are severe.  
Never give anything by mouth to an unconscious person.

### **Most important symptoms/effects, acute and delayed**

#### **Potential acute health effects**

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Harmful in contact with skin.
- Ingestion** : No known significant effects or critical hazards.

#### **Over-exposure signs/symptoms**

- Eye contact** : Adverse symptoms may include the following:  
irritation  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing
- Skin contact** : No specific data.
- Ingestion** : No specific data.

#### **Indication of immediate medical attention and special treatment needed, if necessary**

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## **Section 5. Fire-fighting measures**

#### **Extinguishing media**

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : 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.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides

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**Special protective actions for fire-fighters**

- : 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.

**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.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel**

- : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. 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.

**For emergency responders**

- : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**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 and materials for containment and cleaning up

**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.

## Section 7. Handling and storage

### Precautions for safe handling

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**Protective measures**

- : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Empty containers retain product residue and can be hazardous.

**Advice on general occupational hygiene**

- : 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. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities**

- : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Propane, 2-methyl-	<b>NIOSH REL (1994-06-01)</b> Time Weighted Average (TWA) 1,900 mg/m <sup>3</sup> 800 ppm

**Appropriate engineering controls**

- : Use only with adequate ventilation. 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.

**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.

### Individual protection measures

**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.

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**Eye/face protection** : Protective eyewear is not required, but may be used in situations where contact is expected.

**Skin protection**

**Hand protection** : Protective gloves are not required, but may be used in situations where significant contact is expected.

**Body protection** : Wear long-sleeved shirt, long pants, shoes with socks., Remove and wash contaminated clothing before reuse.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : 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.

## Section 9. Physical and chemical properties

### Appearance

**Physical state** : liquid [aerosol]

**Color** : White.

**Odor** : Not available.

**Odor threshold** : Not available.

**pH** : 7.4

**Melting point** : Not available.

**Boiling point** : Not available.

**Flash point** : Not available.

**Evaporation rate** : Not available.

**Flammability (solid, gas)** : Not available.

**Lower and upper explosive (flammable) limits** : **Lower:** Not available.  
**Upper:** Not available.

**Vapor pressure** : Not available.

**Vapor density** : Not available.

**Relative density** : Not available.

**Solubility** : Not available.

**Partition coefficient: n-octanol/water** : Not available.

**Auto-ignition temperature** : Not available.

**Decomposition temperature** : Not available.

**Viscosity** : **Dynamic:** 5 cPs

**Kinematic:** Not available.

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## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**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.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
	LD50 Oral	Rat - Female	> 5,000 mg/kg	-
	LC50 Inhalation	Rat	> 5 mg/l	4 h
	LD50 Dermal	Rat	< 2,000 mg/kg	-

**Conclusion/Summary** : Very low toxicity to humans or animals.

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
	Eyes - Erythema/Eschar	Rabbit	< 1.0		-
	Skin - Erythema/Eschar	Rabbit	< 1.0		-

#### Conclusion/Summary

**Skin** : Slight

**Eyes** : Mildly irritating

**Respiratory** : May cause respiratory irritation

#### Sensitization

Product/ingredient name	Route of exposure	Species	Result
	Skin	Guinea pig	Not sensitizing

#### Conclusion/Summary

**Skin** : Not sensitizing

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**Respiratory** : No results available.

#### **Mutagenicity**

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

#### **Carcinogenicity**

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

#### **Reproductive toxicity**

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

#### **Teratogenicity**

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

#### **Specific target organ toxicity (single exposure)**

Not available.

#### **Specific target organ toxicity (repeated exposure)**

Not available.

#### **Aspiration hazard**

Product/ingredient name	Result
Distillates (petroleum), hydrotreated light	

**Information on the likely routes of exposure** : Not available.

#### **Potential chronic health effects**

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

**General** : No known significant effects or critical hazards.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

## **Section 12. Ecological information**

#### **Toxicity**

**Conclusion/Summary** : Not available.

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**Persistence and degradability**

**Conclusion/Summary** : Not available.

**Mobility in soil**

**Soil/water partition coefficient (KOC)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

## Section 14. Transport information

<b>Regulatory information</b>	<b>UN no.</b>	<b>Proper shipping name</b>	<b>Class</b>	<b>PG*</b>	<b>Note</b>
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

**Special precautions for user** : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 15. Regulatory information

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**Precautionary statements****Signal word****Emergency Overview**

- : CAUTION!
- : Keep out of reach of children.
- : 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.

**U.S. Federal regulations**

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

**State regulations****California Prop. 65**

Not available.

**International lists****National inventory****Australia**

: All components are listed or exempted.

**Canada**

: At least one component is not listed.

**China**

: All components are listed or exempted.

**Europe**

: All components are listed or exempted.

**Japan**

: Not determined.

**Malaysia**

: Not determined.

**New Zealand**

: All components are listed or exempted.

**Philippines**

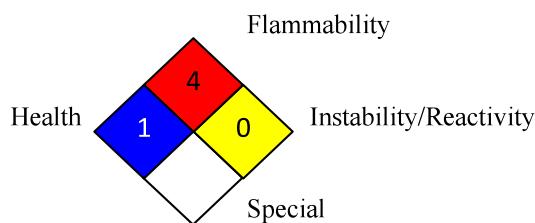
: Not determined.

**Republic of Korea**

: Not determined.

**Taiwan**

: Not determined.

**Section 16. Other information****National Fire Protection Association (U.S.A.):**

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**History**

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**Notice to reader**

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