

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



RAID® HOUSE & GARDEN BUG KILLER FORMULA 7

Version 2.0

Print Date 03/12/2018

Revision Date 07/13/2017

SDS Number 350000010288

1. PRODUCT AND COMPANY IDENTIFICATION

Product information

Product name : RAID® HOUSE & GARDEN BUG KILLER FORMULA 7

Recommended use : Insecticide

Restrictions on use : Use only as directed on label

Manufacturer, importer, supplier : S.C. Johnson & Son, Inc.
1525 Howe Street
Racine WI 53403-2236

Telephone : +1-800-558-5252

Emergency telephone number : 24 Hour Medical Emergency Phone: (866)231-5406
24 Hour International Emergency Phone: (703)527-3887
24 Hour Transport Emergency Phone: (800)424-9300

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Globally Harmonized System (GHS) Classification

Hazard classification	Hazard category	Hazards identification
Aerosol	Category 2	Flammable aerosol.
Gases under pressure	Liquefied gas	Contains gas under pressure; may explode if heated.

Labelling

Hazard symbols

Flame
Gas cylinder

Signal word

Warning

Hazard statements

Flammable aerosol.
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Precautionary statements

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Protect from sunlight. Store in a well-ventilated place.

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

Other hazards : None identified

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS-No.	Weight percent
Butane	106-97-8	5.00 - 10.00
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	64742-47-8	5.00 - 10.00
Propane	74-98-6	1.00 - 5.00
Isobutane	75-28-5	1.00 - 5.00
D-Allethrin	584-79-2	0.10 - 1.00
d-Phenothrin	188023-86-1	0.10 - 1.00

The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

For additional information on product ingredients, see www.whatsinsidescjohnson.com.

4. FIRST AID MEASURES

Description of first aid measures

Eye contact : No special requirements

Skin contact : No special requirements

Inhalation : No special requirements.

Ingestion : No special requirements

Most important symptoms and effects, both acute and delayed

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Indication of any immediate medical attention and special treatment needed

See Description of first aid measures unless otherwise stated.

5. FIREFIGHTING MEASURES

- Suitable extinguishing media** : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Specific hazards during firefighting** : Aerosol Product - Containers may rocket or explode in heat of fire. Do not allow run-off from fire fighting to enter drains or water courses.
- Further information** : Fight fire from maximum distance or protected area. Cool and use caution when approaching or handling fire-exposed containers. Wear full protective clothing and positive pressure self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Remove all sources of ignition.
Wear personal protective equipment.
Wash thoroughly after handling.
- Environmental precautions** : Do not flush into surface water or sanitary sewer system.
Use appropriate containment to avoid environmental contamination.
Outside of normal use, avoid release to the environment.
- Methods and materials for containment and cleaning up** : If damage occurs to aerosol can:
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Use only non-sparking equipment.
Dike large spills.
Clean residue from spill site.

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7. HANDLING AND STORAGE

Handling

Precautions for safe handling

: Avoid contact with skin, eyes and clothing.
Do not enter places where used or stored until adequately ventilated.
For personal protection see section 8.
Use only as directed.
KEEP OUT OF REACH OF CHILDREN AND PETS.
Pressurized container.
Do not pierce or burn, even after use.

Advice on protection against fire and explosion

: Keep away from sources of ignition - No smoking.
Do not spray on an open flame or other ignition source.

Storage

Requirements for storage areas and containers

: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.
Keep away from food, drink and animal feedingstuffs.
Keep in a dry, cool and well-ventilated place.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Occupational Exposure Limits**

Components	CAS-No.	mg/m ³	ppm	Non-standard units	Basis
Butane	106-97-8	-	1,000 ppm	-	ACGIH STEL
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	64742-47-8	1,200 mg/m ³	152 ppm	-	SUPPLIER
Propane	74-98-6	1,800 mg/m ³	1,000 ppm	-	OSHA TWA
Propane	74-98-6	-	-	-	ACGIH TWA
Isobutane	75-28-5	-	1,000 ppm	-	ACGIH STEL

Personal protective equipment**Respiratory protection** : Do not spray in enclosed areas.**Hand protection** : No special requirements.**Eye protection** : No special requirements.**Skin and body protection** : No special requirements.**Hygiene measures** : Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.**9. PHYSICAL AND CHEMICAL PROPERTIES****Form** : aerosol

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Form	: Compressed gas
Color	: opaque
Odour	: pleasant
Odour Threshold	: No data available
pH	: Not applicable
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: No data available
Flash point	: < -7 °C < 19.4 °F Method: Tag Closed Cup (TCC) Propellant
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper/lower flammability or explosive limits	: No data available
Vapour pressure	: No data available
Vapour density	: No data available
Relative density	: 0.85 g/cm ³
Solubility(ies)	: slightly soluble

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Partition coefficient: n-octanol/water	:	No data available	
Auto-ignition temperature	:	No data available	
Decomposition temperature	:	No data available	
Viscosity, dynamic	:	No data available	
Viscosity, kinematic	:	No data available	
Oxidizing properties	:	No data available	
Volatile Organic Compounds Total VOC (wt. %)*	:	15.8 % - additional exemptions may apply *as defined by US Federal and State Consumer Product Regulations	
Other information	:	None identified	:

10. STABILITY AND REACTIVITY

Possibility of hazardous reactions	:	Stable under recommended storage conditions.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	Strong oxidizing agents
Hazardous decomposition products	:	Thermal decomposition can lead to release of irritating gases and vapours.

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11. TOXICOLOGICAL INFORMATION**Acute oral toxicity** : LD50 > 5,000 mg/kg**Acute inhalation toxicity** : LC50 > 10 mg/L**Acute dermal toxicity** : LD50 > 5,000 mg/kg

GHS Properties	Classification	Routes of entry
Acute toxicity	No classification proposed	Oral
Acute toxicity	No classification proposed	Dermal
Acute toxicity	No classification proposed	Inhalation - Dust and Mist
Acute toxicity	No classification proposed	Inhalation - Vapour
Acute toxicity	No classification proposed	Inhalation - Gas
Skin corrosion/irritation	No classification proposed	-
Serious eye damage/eye irritation	No classification proposed	-
Skin sensitisation	No classification proposed	-
Respiratory sensitisation	No classification proposed	-
Germ cell mutagenicity	No classification proposed	-
Carcinogenicity	No classification proposed	-
Reproductive toxicity	No classification proposed	-
Specific target organ toxicity - single exposure	No classification proposed	-
Specific target organ toxicity - repeated exposure	No classification proposed	-
Aspiration hazard	No classification proposed	-

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Aggravated Medical Condition : None known.**12. ECOLOGICAL INFORMATION****Product** : The product itself has not been tested.**Toxicity**

The ingredients in this formula have been reviewed and no adverse impact to the environment is expected when used according to label directions.

Toxicity to fish

Components	End point	Species	Value	Exposure time
Butane	LC50 QSAR	Fish	27.98 mg/l	96 h
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	LC50	Fish	> 1,028 mg/l	96 h
Propane	LC50	Fish	27.98 mg/l	96 h
Isobutane	LC50 QSAR	Fish	27.98 mg/l	96 h
D-Allethrin	LC50	Danio rerio (zebra fish)	0.0708 mg/l	96 h
d-Phenothrin	LC50	Oncorhynchus mykiss (rainbow trout)	0.0027 mg/l	96 h
	NOEC	Oncorhynchus mykiss (rainbow trout)	> 0.0011 mg/l	90 d

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Toxicity to aquatic invertebrates

Components	End point	Species	Value	Exposure time
Butane	No data available			
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	EC50	Daphnid	> 3,193 mg/l	48 h
Propane	LC50	Daphnid	14.22 mg/l	48 h
Isobutane	LC50 QSAR	Daphnid	16.33 mg/l	48 h
D-Allethrin	EC50	Daphnia magna (Water flea)	0.047 mg/l	48 h
d-Phenothrin	EC50	Daphnia (water flea)	0.0043 mg/l	48 h
	NOEC	Daphnia (water flea)	0.00047 mg/l	21 d

Toxicity to aquatic plants

Components	End point	Species	Value	Exposure time
Butane	EC50 QSAR	Green algae	7.71 mg/l	96 h

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Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	EC50	Skeletonema costatum	> 3,198 mg/l	72 h
Propane	No data available			
Isobutane	EC50 QSAR	Green algae	8.57 mg/l	96 h
D-Allethrin	IC50	Desmodesmus subspicatus (green algae)	1.1 mg/l	72 h
d-Phenothrin	EbC50	Algae	> 0.011 mg/l	72 h

Persistence and degradability

Component	Biodegradation	Exposure time	Summary
Butane	100 %	385.5 h	Readily biodegradable.
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	74 %	28 d	Readily biodegradable.
Propane	70 %	< 10 d	Readily biodegradable.
Isobutane	70 %	< 10 d	Readily biodegradable.
D-Allethrin	No data available		Not readily biodegradable.
d-Phenothrin	1 %	28 d	Not readily biodegradable.

Bioaccumulative potential

Component	Bioconcentration factor (BCF)	Partition Coefficient n-Octanol/water (log)
Butane	No data available	2.89
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	61 - 159	No data available

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Propane	No data available	2.36
Isobutane	1.57 - 1.97	2.8
D-Allethrin	20	
d-Phenothrin	2,506 - 3,192 Measured	6.8

Mobility

Component	End point	Value
Butane	No data available	
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	No data available	
Propane	No data available	
Isobutane	No data available	
D-Allethrin	Koc	9500
d-Phenothrin	Koc	125893

PBT and vPvB assessment

Component	Results
Butane	Not fulfilling PBT and vPvB criteria
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	Not fulfilling PBT and vPvB criteria
Propane	Not fulfilling PBT and vPvB criteria
Isobutane	Not fulfilling PBT and vPvB criteria
D-Allethrin	Not fulfilling PBT and vPvB criteria
d-Phenothrin	Not fulfilling PBT and vPvB criteria

Other adverse effects : None known.

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13. DISPOSAL CONSIDERATIONS**PESTICIDAL WASTE:**

For disposal information, please read and follow Disposal instructions on the pesticide label.
Consumer may discard empty container in trash, or recycle where facilities exist.

14. TRANSPORT INFORMATION

Please refer to the Bill of Lading/receiving documents for up-to-date shipping information.

	Land transport	Sea transport	Air transport
UN number	1950	1950	1950
UN proper shipping name	AEROSOLS, Flammable	AEROSOLS, Flammable	AEROSOLS, Flammable
Transport hazard class(es)	2.1	2	2.1
Packing group	-	-	-
Environmental hazards	-	-	-
Special precautions for user	Limited quantities derogation may be applicable to this product, please check transport documents.	Limited quantities derogation may be applicable to this product, please check transport documents.	Limited quantities derogation may be applicable to this product, please check transport documents.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Product not transported as bulk.	Product not transported as bulk.	Product not transported as bulk.

15. REGULATORY INFORMATION**FIFRA Labeling**

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.

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Following is the hazard information as required on the pesticide label:

CAUTION:

Causes moderate eye irritation.

CONTENTS UNDER PRESSURE.

Exposure to temperatures above 130° F may cause bursting.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds.

This pesticide is toxic to fish and aquatic invertebrates.

Notification status : All ingredients of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

California Prop. 65 : This product is not subject to the reporting requirements under California's Proposition 65.

Registration # / Agency

4822-283/US/EPA

16. OTHER INFORMATION

HMIS Ratings

Health	1
Flammability	4
Reactivity	0

NFPA Ratings

Health	1
Fire	4
Reactivity	0
Special	-

This information is being provided in accordance with the Occupational Safety and Health Administration (OSHA) regulation (29 CFR 1910.1200). The information supplied is designed for workplaces where product use and frequency of exposure exceeds that established for the labeled

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consumer use.

Further information

This document has been prepared using data from sources considered to be technically reliable. It does not constitute a warranty, expressed or implied, as to the accuracy of the information contained herein. Actual conditions of use are beyond the seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.

Prepared by	SC Johnson Global Safety Assessment & Regulatory Affairs (GSARA)
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