

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



RAID® FLEA KILLER

Version 2.2

Print Date 03/12/2018

Revision Date 08/05/2016

SDS Number 350000003906

1. PRODUCT AND COMPANY IDENTIFICATION

Product information

Product name : RAID® FLEA KILLER

Recommended use : Insecticide

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

Telephone : +18005585252
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 1	Extremely flammable aerosol.
Acute toxicity	Category 4	Harmful if inhaled.
Gases under pressure	Liquefied gas	Contains gas under pressure; may explode if heated.

Labelling

Hazard symbols

Flame
Gas cylinder

Signal word

Danger

Hazard statements

Extremely flammable liquid and vapour.
Contains gas under pressure; may explode if heated.

Precautionary statements

If medical advice is needed, have product container or label at hand.

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Keep out of reach of children.

Read label before use.

IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of fire: Use water spray for extinction.

Call a POISON CENTER or doctor/ physician if you feel unwell.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Store in a well-ventilated place. Keep cool.

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

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

Dispose of contents/ container to an approved incineration plant.

Dispose of contents/ container to an approved incineration plant.

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

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wear protective gloves.

Use explosion-proof electrical/ ventilating/ lighting/ equipment.

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

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

Do not pierce or burn, even after use.

Avoid breathing spray.

Use only outdoors or in a well-ventilated area.

Other hazards : None identified

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Weight percent
Butane	106-97-8	10.00 - 30.00
Isobutane	75-28-5	5.00 - 10.00
Propane	74-98-6	1.00 - 5.00
n-Octyl bicycloheptene dicarboximide	113-48-4	0.10 - 1.00
Piperonyl butoxide	51-03-6	0.10 - 1.00
Pyrethrum	8003-34-7	0.10 - 1.00
Tetramethrin	7696-12-0	0.0001 - 0.10

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

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

4. FIRST AID MEASURES

Eye contact	: No special requirements
Skin contact	: No special requirements
Inhalation	: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Ingestion	: No special requirements

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.
NFPA Classification	: NFPA Level 1 Aerosol

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.

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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.

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.
Avoid breathing vapours, mist or gas.
Pressurized container.
Do not pierce or burn, even after use.
Use only outdoors or in a well-ventilated area.

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

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Components	CAS-No.	mg/m3	ppm	Non-standard units	Basis
Butane	106-97-8	-	1,000 ppm	-	ACGIH STEL
Isobutane	75-28-5	-	1,000 ppm	-	ACGIH STEL
Propane	74-98-6	1,800 mg/m3	1,000 ppm	-	OSHA TWA
Propane	74-98-6	-	-	-	ACGIH TWA

Personal protective equipment

Respiratory protection : Use only with adequate ventilation.
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

Color : clear

Odor : pleasant

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Odour Threshold	: No data available
pH	: No data available
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)	: Sustains combustion
Upper/lower flammability or explosive limits	: No data available
Vapour pressure	: No data available
Vapour density	: No data available
Relative density	: 0.8 g/cm ³
Solubility(ies)	: soluble
Partition coefficient: n-octanol/water	: No data available

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Auto-ignition temperature : Not applicable

Decomposition temperature : Test not applicable for this product type

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Oxidizing properties : No data available

Volatile Organic Compounds : 22.1 % - additional exemptions may apply
Total VOC (wt. %)* *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

Emergency Overview	: Danger Danger
Acute oral toxicity	: LD50 > 5,000 mg/kg
Acute inhalation toxicity	: LC50 > 2.09 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	Category 4	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	-

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Specific target organ toxicity - repeated exposure	No classification proposed	-
Aspiration hazard	No classification proposed	-

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
Isobutane	LC50 QSAR	Fish	27.98 mg/l	96 h
Propane	LC50	Fish	27.98 mg/l	96 h
n-Octyl bicycloheptene dicarboximide	No data available			
Piperonyl butoxide	LC50	Cyprinodon variegatus (sheepshead minnow)	3.94 mg/l	96 h
	flow-through test	Pimephales promelas (fathead minnow)	0.18 mg/l	35 d

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	NOEC			
Pyrethrum	LC50	Oncorhynchus mykiss (rainbow trout)	0.0052 mg/l	96 h
Tetramethrin	LC50	Oncorhynchus mykiss (rainbow trout)	0.0037 mg/l	96 h

Toxicity to aquatic invertebrates

Components	End point	Species	Value	Exposure time
Butane	No data available			
Isobutane	LC50 QSAR	Daphnid	16.33 mg/l	48 h
Propane	LC50	Daphnid	14.22 mg/l	48 h
n-Octyl bicycloheptene dicarboximide	No data available			
Piperonyl butoxide	flow-through test EC50 Calculated	Crassostrea virginica	0.23 mg/l	96 h
	flow-through test NOEC	Daphnia magna	0.03 mg/l	21 d

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	Measured			
Pyrethrum	NOEC	Daphnia magna (Water flea)	0.00086 mg/l	21 d
Tetramethrin	EC50	Daphnia magna (Water flea)	0.0110 mg/l	48 h

Toxicity to aquatic plants

Components	End point	Species	Value	Exposure time
Butane	EC50 QSAR	Green algae	7.71 mg/l	96 h
Isobutane	EC50 QSAR	Green algae	8.57 mg/l	96 h
Propane	No data available			
n-Octyl bicycloheptene dicarboximide	No data available			
Piperonyl butoxide	EC50 Calculated OECD Test Guideline 201	Selenastrum capricornutum, Skeletonema costatum	0.17 mg/l	72 h
Pyrethrum	No data available			
Tetramethrin	EC50	Algae	> 0.94 mg/l	72 h

Persistence and degradability

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Component	Biodegradation	Exposure time	Summary
Butane	100 %	385.5 h	Readily biodegradable
Isobutane	70 %	< 10 d	Readily biodegradable
Propane	70 %	< 10 d	Readily biodegradable
n-Octyl bicycloheptene dicarboximide	No data available		
Piperonyl butoxide			Not readily biodegradable.
Pyrethrum	No data available		Not readily biodegradable.
Tetramethrin	No data available		Not readily biodegradable.

Bioaccumulative potential

Component	Bioconcentration factor (BCF)	Partition Coefficient n-Octanol/water (log)
Butane	No data available	2.89
Isobutane	1.57 - 1.97	2.8
Propane	No data available	2.36
n-Octyl bicycloheptene dicarboximide	No data available	No data available
Piperonyl butoxide	91 - 380	4.8
Pyrethrum	471	5.9
Tetramethrin	No data available	4.58

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Mobility

Component	End point	Value
Butane	No data available	
Isobutane	No data available	
Propane	No data available	
n-Octyl bicycloheptene dicarboximide	No data available	
Piperonyl butoxide	Koc	599
Pyrethrum	Koc	35171
Tetramethrin		-

PBT and vPvB assessment

Component	Results
Butane	Not fulfilling PBT and vPvB criteria
Isobutane	Not fulfilling PBT and vPvB criteria
Propane	Not fulfilling PBT and vPvB criteria
n-Octyl bicycloheptene dicarboximide	Not fulfilling PBT and vPvB criteria
Piperonyl butoxide	Not fulfilling PBT and vPvB criteria
Pyrethrum	Not fulfilling PBT and vPvB criteria
Tetramethrin	Not fulfilling PBT and vPvB criteria

Other adverse effects : No data available**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

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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, Marine Pollutant	Aerosols, Flammable, Marine Pollutant	Aerosols, Flammable, Marine Pollutant
Transport hazard class(es)	2.1	2	2.1
Packing group	-	-	-
Environmental hazards	-	Marine pollutant	-
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.

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.

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

CAUTION:

Harmful if absorbed through skin.

Contents under pressure.

Exposure to temperatures above 130° F may cause bursting.

Notification status : All ingredients of this product are listed or are excluded from

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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

4822-73/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 consumer use.

Further information

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