

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



RAID® EARTH OPTIONS® FLYING INSECT KILLER I

Version 1.0

Print Date 03/04/2015

Revision Date 02/23/2015

SDS Number 350000021304

1. PRODUCT AND COMPANY IDENTIFICATION

Product information

Product name : RAID® EARTH OPTIONS® FLYING INSECT KILLER I

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 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.
Contains gas under pressure; may explode if heated.

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.
Do not pierce or burn, even after use.

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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
Piperonyl butoxide	51-03-6	0.10 - 1.00
Pyrethrum	8003-34-7	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

Eye contact : No special requirements
Skin contact : No special requirements
Inhalation : No special requirements.
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

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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.

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

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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.

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
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	64742-47-8	1,200 mg/m3	152 ppm	-	SUPPLIER
Propane	74-98-6	-	1,000 ppm	-	ACGIH TWA
Propane	74-98-6	1,800 mg/m3	1,000 ppm	-	OSHA 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.

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9. PHYSICAL AND CHEMICAL PROPERTIES

- Form** : aerosol
- Color** : opaque
- Odor** : 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)

- 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** : No data available

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Solubility(ies)	: soluble	
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. %)*	: 15.1 % - 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

- Emergency Overview** : Warning
- Acute oral toxicity** : NA GHS LD50 estimated > 5,000 mg/kg
- Acute inhalation toxicity** : NA GHS LC50 (dust and mist) estimated > 9.2 mg/l
- Acute dermal toxicity** : No data available

GHS Properties	Classification	Routes of entry
Acute toxicity	No classification proposed	-
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	-

Aggravated Medical Condition : None known.

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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	No data available			
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	Fish	27.98 mg/l	96 h
Piperonyl butoxide	LC50	Cyprinodon variegatus (sheepshead minnow)	3.94 mg/l	96 h
	NOEC	Pimephales promelas (fathead minnow)	0.18 mg/l	35 d
Pyrethrum	LC50	Oncorhynchus mykiss (rainbow trout)	0.0052 mg/l	96 h

Toxicity to aquatic invertebrates

Components	End point	Species	Value	Exposure time
Butane	No data			

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	available			
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	EC50 No data available		> 3,193 mg/l	48 h
Propane	LC50	Daphnid	14.22 mg/l	48 h
Isobutane	LC50	Daphnid	16.33 mg/l	48 h
Piperonyl butoxide	EC50	Daphnia magna (Water flea)	0.51 mg/l	48 h
	NOEC	Daphnia magna	0.03 mg/l	21 d
Pyrethrum	No data available NOEC	Daphnia magna (Water flea)	0.00086 mg/l	21 d

Toxicity to aquatic plants

Components	End point	Species	Value	Exposure time
Butane	No data available			
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	EC50	Skeletonema costatum	3,198 mg/l	72 h
Propane	No data available			
Isobutane	EC50	Green alga	8.57 mg/l	96 h
Piperonyl butoxide	static test EC50	Pseudokirchneriella subcapitata (green algae)	3.89 mg/l	72 h

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Pyrethrum	No data available			
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Persistence and degradability

Component	Biodegradation	Exposure time	Summary
Butane	100 %	385.5 h	Readily biodegradable
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	No data available		
Propane	70 %	< 10 d	Readily biodegradable
Isobutane	70 %	< 10 d	Readily biodegradable
Piperonyl butoxide	4 %	28 d	Not readily biodegradable.
Pyrethrum	No data available		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	No data available	No data available
Propane	No data available	2.36
Isobutane	1.57 - 1.97	2.8
Piperonyl butoxide	91 - 380	4.8
Pyrethrum	471	5.9

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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	
Piperonyl butoxide	Koc	599
Pyrethrum	Koc	35171

PBT and vPvB assessment

Component	Results
Butane	Not fulfilling PBT and vPvB criteria
Propane	Not fulfilling PBT and vPvB criteria
Isobutane	Not fulfilling PBT and vPvB criteria
Piperonyl butoxide	Not fulfilling PBT and vPvB criteria
Pyrethrum	Not fulfilling PBT and vPvB criteria

Other adverse effects : None known.

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.

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	Land transport	Sea transport	Air transport
UN number	1950	1950	1950
UN proper shipping name	AEROSOLS, Flammable, 2.1	AEROSOLS, Flammable, 2.1	AEROSOLS, Flammable, 2.1
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.

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 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.

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Registration # / Agency
4822-38/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

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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