

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



OFF!® DEFENSE INSECT REPELLENT 1 (EPA REG. NO. 4822-564)

Version 1.0

Print Date 07/27/2021

Revision Date 02/15/2018

SDS Number 350000017395

1. PRODUCT AND COMPANY IDENTIFICATION

Product information

Product name : OFF!® DEFENSE INSECT REPELLENT 1 (EPA REG. NO. 4822-564)

Recommended use : Insect Repellent

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 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.
Eye irritation	Category 2A	Causes serious eye irritation.
Gases under pressure	Compressed gas	Contains gas under pressure; may explode if heated.

Labelling

Hazard symbols

Flame
Gas cylinder
Exclamation mark

Signal word

Warning

Hazard statements

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Flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes serious eye irritation.

Precautionary statements

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/ attention.
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.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
Wash hands thoroughly after handling.

Other hazards : Intentional misuse by deliberately concentrating and inhaling contents can be harmful or fatal.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS-No.	Weight percent
Ethyl alcohol	64-17-5	30.00 - 60.00
Icaridine	119515-38-7	10.00 - 30.00
Butane	106-97-8	1.00 - 5.00
Propane	74-98-6	1.00 - 5.00
Isobutane	75-28-5	1.00 - 5.00

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

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- Eye contact** : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.
- Skin contact** : If you suspect a reaction to this product, discontinue use and remove contaminated clothing.
- Inhalation** : No special requirements.
- Ingestion** : No special requirements

Most important symptoms and effects, both acute and delayed

- Eyes** : Causes serious eye irritation.
- Skin effect** : No adverse effects expected when used as directed.
- Inhalation** : Intentional misuse by deliberately concentrating and inhaling contents can be harmful or fatal.
- Ingestion** : May cause irritation to mouth, throat and stomach.
May cause abdominal discomfort.
No adverse effects expected when used as directed.

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

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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 eyes and lips.
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.
Wash thoroughly after handling.

- 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** : Protect from sunlight. Do not expose to temperatures

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areas and containers

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/m ³	ppm	Non-standard units	Basis
Ethyl alcohol	64-17-5	1,900 mg/m ³	1,000 ppm	-	OSHA TWA
Ethyl alcohol	64-17-5	-	1,000 ppm	-	ACGIH STEL
Butane	106-97-8	-	1,000 ppm	-	ACGIH STEL
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** : Safety glasses with side-shields**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** : translucent
- Color** : to
- Color** : light yellow
- Odour** : solvent-like
- Odour Threshold** : Test not applicable for this product type

- pH** : 10.4
see user defined free text

- Melting point/freezing point** : Test not applicable for this product type
- Initial boiling point and boiling range** : Test not applicable for this product type
- Flash point** : >= 21 °C
>= 69.8 °F
-7 °C
19.4 °F
Propellant

- Evaporation rate** : Test not applicable for this product type

- Flammability (solid, gas)** : Sustains combustion

- Upper/lower flammability or explosive limits** : Test not applicable for this product type

- Vapour pressure** : Test not applicable for this product type

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Vapour density	:	Test not applicable for this product type	
Relative density	:	0.86 g/cm ³ at 21 °C	
Solubility(ies)	:	slightly soluble	
Partition coefficient: n-octanol/water	:	Test not applicable for this product type	
Auto-ignition temperature	:	not auto-flammable	
Decomposition temperature	:	Test not applicable for this product type	
Viscosity, dynamic	:	Test not applicable for this product type	
Viscosity, kinematic	:	Test not applicable for this product type	
Oxidizing properties	:	Test not applicable for this product type	
Volatile Organic Compounds Total VOC (wt. %)*	:	64.5 % - additional exemptions may apply *as defined by US Federal and State Consumer Product Regulations	
Other information	:	None identified	:

10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under recommended storage conditions.

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- Possibility of hazardous reactions** : If accidental mixing occurs and toxic gas is formed, exit area immediately. Do not return until well ventilated.

- Conditions to avoid** : Heat, flames and sparks.

- Incompatible materials** : Strong oxidizing agents
Do not mix with bleach or any other household cleaners.
Strong bases

- Hazardous decomposition products** : Thermal decomposition can lead to release of irritating gases and vapours.

11. TOXICOLOGICAL INFORMATION

- Acute oral toxicity** : LD50 > 5000 mg/kg
- Acute inhalation toxicity** : LC50 > 10 mg/L

- Acute dermal toxicity** : LD50 > 5000 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	-
Eye irritation	Category 2A	-
Skin sensitisation	No classification proposed	-
Respiratory	No classification proposed	-

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sensitisation		
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 : Do not apply to cuts or irritated skin.

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
Ethyl alcohol	LC50	Fish	11,200 mg/l	96 h
Icaridine	LC50	Oncorhynchus mykiss (rainbow trout)	173 mg/l	96 h
	flow-through test NOEC Measured	Danio rerio (zebra fish)	3.19 mg/l	32 d

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	OECD Guideline 210 (Fish, Early-Life Stage Toxicity Test)			
Butane	LC50 QSAR	Fish	27.98 mg/l	96 h
Propane	LC50	Fish	27.98 mg/l	96 h
Isobutane	LC50 QSAR	Fish	27.98 mg/l	96 h

Toxicity to aquatic invertebrates

Components	End point	Species	Value	Exposure time
Ethyl alcohol	static test LC50	Ceriodaphnia dubia	5,012 mg/l	48 h
	NOEC	Daphnia magna	9.6 mg/l	9 d
Icaridine	EC50	Daphnia magna (Water flea)	> 100 mg/l	48 h
Butane	No data			

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	available			
Propane	LC50	Daphnid	14.22 mg/l	48 h
Isobutane	LC50 QSAR	Daphnid	16.33 mg/l	48 h

Toxicity to aquatic plants

Components	End point	Species	Value	Exposure time
Ethyl alcohol	Static EC50	Chlorella vulgaris (Fresh water algae)	275 mg/l	72 h
Icaridine				
Butane	EC50 QSAR	Green algae	7.71 mg/l	96 h
Propane	No data available			
Isobutane	EC50 QSAR	Green algae	8.57 mg/l	96 h

Persistence and degradability

Component	Biodegradation	Exposure time	Summary
Ethyl alcohol	97 %	28 d	Readily biodegradable.
Icaridine	< 1 %	28 d	Not readily biodegradable.
Butane	100 %	385.5 h	Readily biodegradable.
Propane	70 %	< 10 d	Readily biodegradable.
Isobutane	70 %	< 10 d	Readily biodegradable.

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Bioaccumulative potential

Component	Bioconcentration factor (BCF)	Partition Coefficient n-Octanol/water (log)
Ethyl alcohol	3.2 estimated	-0.35 Measured
Icaridine	No data available	No data available
Butane	No data available	2.89
Propane	No data available	2.36
Isobutane	1.57 - 1.97	2.8

Mobility

Component	End point	Value
Ethyl alcohol	No data available	
Icaridine	No data available	
Butane	No data available	
Propane	No data available	
Isobutane	No data available	

PBT and vPvB assessment

Component	Results
Ethyl alcohol	Not fulfilling PBT and vPvB criteria
Icaridine	Not fulfilling PBT and vPvB criteria
Butane	Not fulfilling PBT and vPvB criteria
Propane	Not fulfilling PBT and vPvB criteria
Isobutane	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:

WARNING:

- Causes substantial but temporary eye injury.
- Use of this product may cause skin reactions in rare cases.
- Flammable
- 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.

16. OTHER INFORMATION

HMIS Ratings

Health	2
Flammability	4
Reactivity	0

NFPA Ratings

Health	2
Fire	4
Reactivity	0
Special	-

This information is being provided in accordance with the Occupational Safety and Health

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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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