according to Hazard Communication Standard; 29 CFR 1910.1200



OFF!® DEEP WOODS® INSECT REPELLENT VIII (DRY)

Version 1.1

Print Date 05/26/2015

Revision Date 02/24/2015

SDS Number 350000015104

1. PRODUCT AND COMPANY IDENTIFICATION

Product information		
Product name	:	OFF!® DEEP WOODS® INSECT REPELLENT VIII (DRY)
Recommended use	:	Insect Repellent
Manufacturer, importer, supplier	:	S.C. Johnson & Son, Inc. 1525 Howe Street Racine WI 53403-2236
Telephone Emergency telephone number	:	+18005585252 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.
Eye irritation	Category 2A	Causes serious eye irritation.
Gases under pressure	Liquefied gas	Contains gas under pressure;
		may explode if heated.

Labelling Hazard symbols Flame Gas cylinder Exclamation mark

Signal word Danger

Hazard statements

Extremely 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.

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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.
Do not pierce or burn, even after use.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
Wash hands thoroughly after handling.
Other hazards : None identified

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Weight percent
N,N-Diethyl-m-toluamide	134-62-3	10.00 - 30.00
Ethyl alcohol	64-17-5	10.00 - 30.00
Butane	106-97-8	10.00 - 30.00
Corn starch	9005-25-8	10.00 - 30.00
Propane	74-98-6	5.00 - 10.00
Isobutane	75-28-5	5.00 - 10.00
Isopropyl Myristate	110-27-0	1.00 - 5.00
Magnesium carbonate	546-93-0	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

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.	



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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 2 Aerosol		
6. ACCIDENTAL RELEASE ME	EASURES		
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 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 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/m3	ppm	Non- standard units	Basis
Ethyl alcohol	64-17-5	1,900 mg/m3	1,000 ppm	-	OSHA TWA
Ethyl alcohol	64-17-5	-	1,000 ppm	-	ACGIH STEL
Butane	106-97-8	-	1,000 ppm	-	ACGIH STEL
Corn starch	9005-25-8	5 mg/m3	-	-	OSHA TWA
Corn starch	9005-25-8	15 mg/m3	-	-	OSHA TWA
Corn starch	9005-25-8	10 mg/m3	-	-	ACGIH TWA
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
Magnesium carbonate	546-93-0	5 mg/m3	-	-	OSHA TWA
Magnesium carbonate	546-93-0	15 mg/m3	-	-	OSHA TWA

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.

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Hygiene measures

: Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: aerosol
Form	: Compressed gas
Color	: white
Odor	: pleasant
Odour Threshold	: No data available
рН	: 10.3 (as aqueous solution)
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: No data available
Flash point	: < -7 °C < 19.4 °F 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

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Vapour density	:	No data available	
Relative density	:	0.82 g/cm3	
Solubility(ies)	:	dispersible	
Partition coefficient: n- octanol/water	:	No data available	
Auto-ignition temperature	:	No data available	
Decomposition temperature	:		
Viscosity, dynamic	:	No data available	
Viscosity, kinematic	:	No data available	
Oxidizing properties	:	No data available	
Volatile Organic Compounds Total VOC (wt. %)*	:	52.6 % - 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	:	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	
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OFF!® DEEP WOODS® INSECT REPELLENT VIII (DRY) Version 1.1 Print Date 05/26/2015 Revision Date 02/24/2015 SDS Number 350000015104 Do not mix with bleach or any other household cleaners. Strong bases Hazardous decomposition : Thermal decomposition can lead to release of irritating gases products and vapours. **11. TOXICOLOGICAL INFORMATION Emergency Overview** : Danger Acute oral toxicity LD50 : estimated > 2,000 mg/kg Acute inhalation toxicity : NA GHS LC50 (dust and mist) estimated > 2.79 mg/l

Acute dermal toxicity : LD50 estimated > 5,000 mg/kg

GHS Properties	Classification	Routes of entry
Acute toxicity	No classification proposed	-
Skin corrosion/irritation	No classification proposed	-
Eye irritation	Category 2A	-
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	No classification proposed	-



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exposure		
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
N,N-Diethyl-m-toluamide	static test LC50	Oncorhynchus mykiss (rainbow trout)	71.25 mg/l	96 h
Ethyl alcohol	flow- through test LC50	Pimephales promelas (fathead minnow)	14,200 mg/l	96 h
Butane	No data available			
Corn starch	No data available			
Propane	LC50	Fish	27.98 mg/l	96 h
Isobutane	LC50	Fish	27.98 mg/l	96 h



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Isopropyl Myristate	LC50	Danio rerio (zebra fish)	8,400 mg/l	96 h
Magnesium carbonate	static test LC50	Pimephales promelas (fathead minnow)	2,800 mg/l	96 h

Toxicity to aquatic invertebrates

Components	End point	Species	Value	Exposure time
N,N-Diethyl-m-toluamide	No data available			
Ethyl alcohol	static test EC50	Daphnia magna (Water flea)		48 h
			2 mg/l	
	NOEC	Daphnia magna	9.6 mg/l	9 d
Butane	No data available			
Corn starch	No data available			
Propane	LC50	Daphnid	14.22 mg/l	48 h
Isobutane	LC50	Daphnid	16.33 mg/l	48 h



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Isopropyl Myristate	EC50	Daphnia magna (Water flea)	100 mg/l	48 h
Magnesium carbonate	No data available			

Toxicity to aquatic plants

Components	End point	Species	Value	Exposure time
N,N-Diethyl-m-toluamide	No data available			
Ethyl alcohol	Static EC50	Chlorella vulgaris (Fresh water algae)	275 mg/l	72 h
Butane	No data available			
Corn starch	No data available			
Propane	No data available			
Isobutane	EC50	Green algea	8.57 mg/l	96 h
Isopropyl Myristate	EC50	Desmodesmus subspicatus	> 100 mg/l	72 h
Magnesium carbonate	static test EC50 Read- across (Analogy)	Desmodesmus subspicatus (green algae)	> 100 mg/l	72 h

Persistence and degradability

Component	Biodegradation	Exposure time	Summary
N,N-Diethyl-m-toluamide	No data available		
Ethyl alcohol	97 %	28 d	Readily biodegradable



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Butane	100 %	385.5 h	Readily biodegradable
Corn starch	No data available		
Propane	70 %	< 10 d	Readily biodegradable
Isobutane	70 %	< 10 d	Readily biodegradable
Isopropyl Myristate	91.4 %	28 d	Readily biodegradable
Magnesium carbonate	No data available		

Bioaccumulative potential

Component	Bioconcentration factor (BCF)	Partition Coefficient n- Octanol/water (log)
N,N-Diethyl-m-toluamide	No data available	No data available
Ethyl alcohol	3.2 estimated	-0.35 Measured
Butane	No data available	2.89
Corn starch	No data available	No data available
Propane	No data available	2.36
Isobutane	1.57 - 1.97	2.8
Isopropyl Myristate	1,220.1	7.71
Magnesium carbonate	0.89 QSAR	-2.12 QSAR

Mobility

Component	End point	Value
N,N-Diethyl-m-toluamide	No data available	
Ethyl alcohol	No data available	
Butane	No data available	
Corn starch	No data available	
Propane	No data available	
Isobutane	No data available	
Isopropyl Myristate	log Koc	4.08
Magnesium carbonate	No data available	

PBT and vPvB assessment

Component	Results
N,N-Diethyl-m-toluamide	Not fulfilling PBT and vPvB criteria



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Not fulfilling PBT and vPvB criteria
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 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
1950	1950	1950
AEROSOLS,	AEROSOLS,	AEROSOLS,
Flammable, 2.1	Flammable, 2.1	Flammable, 2.1
2.1	2	2.1
-	-	-
-	-	-
Limited quantities	Limited quantities	Limited quantities
derogation may be	derogation may be	derogation may be
applicable to this	applicable to this	applicable to this
product, please check	product, please	product, please check
transport documents.	check transport	transport documents.
	documents.	
	1950 AEROSOLS, Flammable, 2.1 2.1 - Limited quantities derogation may be applicable to this product, please check	19501950AEROSOLS, Flammable, 2.1AEROSOLS, Flammable, 2.12.12

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:

WARNING: Causes substantial but temporary eye injury. Harmful if swallowed. Use of this product may cause skin reactions in rare cases. Extremely flammable Contents under pressure. Exposure to temperatures above 120° 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.
Notification status	: All ingredients of this product comply with the New Substances Notification requirements under the Canadian Environmental Protection Act (CEPA).
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California Prop. 65

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

Registration # / Agency 4822-572/US/EPA 30598/PMRA

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 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.

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