



Nature's Defense Water-Based Fly Repellent Spray

Safety Data Sheet

Date of issue: 09/19/2017

Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : Nature's Defense Water-Based Fly Repellent Spray
Synonyms : 12012

1.2. Recommended use and restrictions on use

Recommended use : Fly repellent.
Restrictions on use : Avoid contact with eyes, skin and clothing, Keep out of reach of children.

1.3. Supplier

Farnam Companies, Inc.
301 West Osborn Road
Phoenix, AZ 85067-4820
www.farnam.com

1.4. Emergency telephone number

Emergency number : 1-800-234-2269
1-800-424-9300 - CHEMTREC
1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Serious eye damage/eye irritation Category 2A Causes serious eye irritation
Skin sensitization, category 1B May cause an allergic skin reaction

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : May cause an allergic skin reaction
Causes serious eye irritation
Precautionary statements (GHS-US) : Avoid breathing dust/fume/gas/mist/vapors/spray
Wash hands, forearms and face thoroughly after handling
Contaminated work clothing must not be allowed out of the workplace
Wear protective gloves/protective clothing/eye protection/face protection
If on skin: Wash with plenty of water
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Wash contaminated clothing before reuse
Dispose of contents/container to in accordance with local/regional/national/international regulations

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

2.4. Unknown acute toxicity (GHS US)

Not applicable

Nature's Defense Water-Based Fly Repellent Spray

Safety Data Sheet

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Glycerine	(CAS-No.) 56-81-5	10
Citronella oil	(CAS-No.) 8000-29-1	0.35
Thyme oil	(CAS-No.) 8007-46-3	0.25
Cornmint Oil	(CAS-No.) 68917-18-0	0.25
Oils, clove	(CAS-No.) 8000-34-8	0.15
Other ingredients	(CAS-No.) N/A	Balance

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after 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 and attention.
- First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after skin contact : An allergic skin reaction may occur in individuals with a sensitivity to Citronella, Thyme, Cornmint and/or Clove Stem oils.
- Symptoms/effects after eye contact : Eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
- Unsuitable extinguishing media : Avoid heavy hose streams.

5.2. Specific hazards arising from the chemical

- Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: Exposure controls/personal protection.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Absorb spills with an inert material, clay granules or other inert absorbent material and put in container for disposal. Use appropriate PPE.

Nature's Defense Water-Based Fly Repellent Spray

Safety Data Sheet

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Wear personal protective equipment.
- Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

- Appropriate engineering controls : Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Clear light yellow liquid
- Color : Light yellow
- Odor : Herbal
- Odor threshold : No data available
- pH : No data available
- Melting point : Not applicable
- Freezing point : No data available
- Boiling point : No data available
- Flash point : No data available
- Relative evaporation rate (butyl acetate=1) : No data available
- Flammability (solid, gas) : Not applicable
- Vapor pressure : No data available
- Relative vapor density at 20 °C : No data available
- Relative density : 1.027
- Solubility : Soluble

Nature's Defense Water-Based Fly Repellent Spray

Safety Data Sheet

Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: Not explosive
Oxidizing properties	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Glycerine (56-81-5)	
LD50 oral rat	2000 mg/kg
LC50 inhalation rat (mg/l)	570 mg/l (Exposure Time: 1 hours)
Citronella oil (8000-29-1)	
LD50 oral rat	2420 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 inhalation rat (mg/l)	> 3.1 mg/l/4h
Thyme oil (8007-46-3)	
LD50 oral rat	2840 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
Oils, clove (8000-34-8)	
LD50 oral rat	1370 mg/kg
LD50 dermal rabbit	1200 mg/kg

GHS-US Properties	Classification
Acute toxicity	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Causes serious eye irritation.
Respiratory or skin sensitization	May cause an allergic skin reaction.
Germ cells mutagen	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicant (single exposure)	Not classified
Specific target organ toxicant (repeated exposure)	Not classified

Nature's Defense Water-Based Fly Repellent Spray

Safety Data Sheet

Aspiration hazard

Not classified

Potential health effects

Inhalation

Acute : Under normal conditions of use, no health effects are expected.

Skin

Acute : An allergic skin reaction may occur in individuals with a sensitivity to Citronella, Thyme, Cornmint and/or Clove Stem oils.

Eye

Acute : May cause eye irritation.

Ingestion

Acute : Under normal conditions of use, no health effects are expected.

SECTION 12: Ecological information

12.1. Toxicity

Glycerine (56-81-5)

LC50 Acute fish 1 51 - 57 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

Citronella oil (8000-29-1)

LC50 Acute fish 1 > 17.3 mg/l (Exposure time: na - Rainbow trout)

EC50 Daphnia 1 > 26.4 mg/l (Exposure time: na - Daphnia magna)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Glycerine (56-81-5)

BCF fish 1 (no bioaccumulation)

Log Pow -1.76

Log Kow -1.76

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
IMDG	Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
IATA	Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

Nature's Defense Water-Based Fly Repellent Spray

Safety Data Sheet

SECTION 15: Regulatory information

15.1. US Federal regulations

Glycerine (56-81-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Citronella oil (8000-29-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Thyme oil (8007-46-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Oils, clove (8000-34-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. US State regulations

No additional information available

SECTION 16: Other information

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SDS US (GHS HazCom 2012) - CGP

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