

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: Trilogy[®], Triact[®], Neem Oil 70%[®], Nimbuz[®]
EPA Registration No. 70051-2
Product Type: Emulsifiable Concentrate
Active Ingredient: Clarified Hydrophobic Extract of Neem Oil
CAS No.: 947173-77-5

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Insecticide, Miticide and Fungicide
Uses advised against: Any use not listed on the label.

1.3. Details of the supplier of the safety data sheet

Name: Certis U.S.A., L.L.C.
Address: 9145 Guilford Road, Suite 175
Columbia, Maryland 21046
U.S.A.
Phone Number: +01 (800) 847-5620
Website/E-mail: www.certisusa.com/ customerservice@certisusa.com

1.4. Emergency telephone number

Emergency number: Chem-Tel: +1 800 255-3924

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Hazard Classification: Flammable Liquid Cat. 4

Signal Word: Warning

Hazard Statements: Combustible Liquid

Pictogram: None

Precautionary Statements:

- Keep away from flames and hot surfaces. No smoking.
- Wear protective gloves/eye protection/face protection.
- In case of fire, use a suitable dry chemical, foam or carbon dioxide to extinguish.
- Store in a well-ventilated place. Keep cool.
- Dispose of contents/container in accordance with all local, regional, national, and international regulations.
- Refer to product label for complete precautionary statements, PPE, and storage and disposal instructions.

2.2 Other Hazards: Not available.

SECTION 3: Composition/information on ingredients

3.1 Substance

Ingredient	CAS Number	% by weight
Clarified Hydrophobic Extract of Neem Oil	947173-77-5	70.0
Specific identity of other components is withheld as a trade secret		30.0

SECTION 4: First aid measures

4.1. Description of first aid measures

- Generic measures** Call a poison control center or doctor for treatment advice. Have the product container or label with you when you calling the poison control center or doctor or going for treatment.
- Eye Contact:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses after 5 minutes, if present, then continue rinsing eye.
- Skin Contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.
- Inhalation:** Call a poison control center or doctor for treatment advice.
- Ingestion:** Call a poison control center or doctor for treatment advice.

4.2. Most important symptoms and effects, both acute and delayed

May cause moderate skin or eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Not available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable Extinguishing Media:** Dry chemical, foam, or carbon dioxide extinguisher.
- Unsuitable Extinguishing Media:** Do not extinguish with water.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: None known.

5.3. Advice for firefighters

Protection of Firefighters: Keep upwind of fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Keep unauthorized people away from the concerned area. Use personal protections as indicated in Section 8. Evacuate the area and observe emergency procedures.

For emergency responders: Use personal protective equipment as recommended in Section 8. Isolate the area and deny entry to unnecessary and unprotected personnel.

6.2. Environmental precautions

This product is hazardous to fish and aquatic vertebrates. For terrestrial uses: Do not apply directly to water or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are actively visiting the treatment area.

6.3. Methods and material for containment and cleaning up

Methods for Containment: Contain and/or absorb with inert material, then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate PPE.

Methods for Clean-Up: None specified.

Other Information: Not available.

6.4. Reference to other sections

Refer to section 8 for further information on protective clothing and section 13 for directions for waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Applicators and other handlers must wear:

- Long sleeved shirt, long pants,
- chemical resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, or poly vinyl chloride)
- shoes plus socks

Follow manufacturers instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container. Store in a dry place, away from direct sunlight, feed, or foodstuffs. Keep container tightly sealed when not in use. Do not store below 40°F (4°C).

7.3. Specific end use(s)

Use only as specified on label.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OSHA Permissible Exposure Limits (PELs): Not established.

ACGIH Threshold Limit Values: Not established.

Other Exposure Limits: Not established.

8.2. Exposure controls

Engineering Controls: None specified.

Personal Protective Equipment

Eye/Face Protection: None specified.

Skin Protection: Long-sleeved shirt and long pants, shoes plus socks.

Hand Protection: Chemical resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, or poly vinyl chloride)

Body Protection: Long-sleeved shirt and long pants, shoes plus socks.

Respiratory Protection: None specified.

Thermal Hazards: None specified.

General Hygiene Considerations: Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse.

Environmental exposure controls: For terrestrial use only: Do not apply directly to water or to areas where surface water is present, or to inter tidal areas below the mean high water mark. This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are actively visiting the treatment area.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance: Brown liquid.

Odour: Citrus/garlic.

Odour Threshold: Not determined.

pH: 1% dilution 4.5-6.5.

Melting Point / Freezing Point:	37°F (3°C).
Initial Boiling Point:	>275 °F.
Boiling Range:	Not determined.
Flash Point:	70°C.
Evaporation Rate:	Not determined.
Flammability (solid, gas):	Not applicable.
Lower & Upper Flammability Limits:	Not applicable.
Vapour Pressure:	Not determined.
Volatility by weight :	25%.
Density:	0.86-0.95 g/ml.
Solubility:	Not determined.
Partition Coefficient (n-octanol/water):	Not determined.
Auto-ignition Temperature:	Not determined.
Decomposition Temperature:	Not determined.
Viscosity:	Not determined.
Explosive Properties:	None known.
Oxidising Properties:	None known.

9.2. Other information

Not available.

SECTION 10: Stability and reactivity

<u>10.1. Reactivity</u>	Combustible liquid, no known hazardous reactions when handled and stored according to stated provisions.
<u>10.2. Chemical stability</u>	Stable when handled and stored according to stated provisions.
<u>10.3. Possibility of hazardous reactions</u>	No known hazardous reactions when handled and stored according to stated provisions.
<u>10.4. Conditions to avoid</u>	Keep away from flames and hot surfaces. Do not store below 40°F (4°C).
<u>10.5. Incompatible materials</u>	None known.
<u>10.6. Hazardous decomposition products</u>	None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute Toxicity

Toxicological information on the substance or mixture:

LD₅₀ (oral)	> 5000 mg/kg (test with similar product containing higher concentration of the same active ingredient)
LD₅₀ (dermal)	> 2000 mg/kg (test with similar product containing higher concentration of the same active ingredient)
LC₅₀ (inhalation)	> 6.17 ± 1.23 mg/L (test with similar product containing higher concentration of the same active ingredient)
Skin corrosion / irritation:	Slightly irritating, Toxicity Category IV (test with similar product containing higher concentration of the same active ingredient)
Eye irritation:	Minimally irritating, Toxicity Category III (test with similar product containing higher concentration of the same active ingredient)
Respiratory or skin sensitization:	Mildly sensitizing (test with similar product containing high concentration of the same AI)

Other information on adverse health effects:

Carcinogenicity

NTP Listed: Not applicable.
IARC Listed: Not applicable.
OSHA: Not applicable.

11.2 Reference to other sections

See Section 4 for symptoms and acute and delayed effects.

SECTION 12: Ecological information

12.1. Toxicity

Test species	Test method	Test substance	LC ₅₀
Bobwhite Quail	14-day acute oral	Active Ingredient	LD ₅₀ > 2,150 mg a.i./kg body weight
<i>Pimephales promelas</i> (Fathead Minnow)	96-hour	Active Ingredient	NOEC 96-hour: 2,000 mg/L
<i>Daphnia magna</i>	48-hour	Active Ingredient	NOEC 48-hour: 2,000 mg/L
<i>Apis mellifera</i> L	This product is toxic to bees exposed to direct treatment. Do not apply when bees are actively visiting the treatment area.		

12.2. Persistence and degradability

Neem oil degrades rapidly and does not persist in the environment.

12.3. Bioaccumulative potential

Neem oil is not intended for use in aquatic environments. Appropriate cautions are required for use around bodies of water.

12.4. Mobility in soil

No data available.

12.5. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal Instructions: Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Keep in original container. Store in a dry place, away from direct sunlight, feed, or foodstuffs. Keep container tightly sealed when not in use. Do not store below 40°F (4°C).

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on-site or at an approved waste disposal facility.

Container Handling: Non-refillable container. Do not reuse or refill this container.

-for containers equal to or less than 5 gallons-

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as following: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

-for containers greater than 5 gallons-

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

-for 250-gallon refillable containers-

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate

vigorously or recirculate water with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

SECTION 14: Transportation information

14.1. UN number

Not regulated.

14.3. Transport hazard class(es)

Not regulated.

14.5. Environmental hazards

Not regulated.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not regulated.

14.2. UN proper shipping name

Not regulated.

14.4. Packing group

Not regulated.

14.6. Special precautions for user

Not regulated.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EPA: This product is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticidal chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION, KEEP OUT OF REACH OF CHILDREN

Harmful if absorbed through the skin. Causes moderate eye irritation.

This product is hazardous to fish and aquatic invertebrates.

This product is highly toxic to bees exposed to direct treatment.

OSHA:	N/A
TSCA Status:	Exempt
CERCLA Reportable Quantity:	N/A
SARA Title III:	
Section 302:	N/A
Section 311/312:	N/A
Section 313:	N/A
RCRA Status:	N/A

SECTION 16: Other information

Disclaimer:

To the best of our knowledge, the information contained herein is accurate. However, neither Certis USA nor any of its subsidiaries assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of

the user. All material may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

SDS Authoring Information:

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