

SDS per US OSHA Hazard Communication Standard (HazCom) 2012, 29 CFR §1910.1200

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. PRODUCT IDENTIFIER

Product name: Neemix[®] 45 [Israel export product only]
Product Type: Botanical Insecticide
EPA Registration No. 70051-9
Active Ingredient: Azadirachtin
CAS No.: 11141-17-6

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Identified uses: For use on (from front panel burst or similar).
Uses advised against: Any use not listed on the label

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Name: Certis USA LLC
Address: Headquarters Address: 9145 Guilford Road, Suite 175, Columbia, Maryland 21046 USA
Phone Number: +1 (800) 847-5620 (in the US); +1 (301) 604-7340 (outside the US)
Website: <http://www.CertisBio.com>

1.4. EMERGENCY TELEPHONE NUMBER

Emergency number: +1 (800) 255-3924 (in the US); +1 (813) 248-0585 (outside the US)

SECTION 2: HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

OSHA Hazard Classification: Flammable liquid, Category 4
Signal Word: Warning
Hazard Statements: Combustible liquid
Pictogram: None
Precautionary Statements:
Prevention: Keep away from flames and hot surfaces. – No smoking. Wear protective gloves and eye protection.
Response: In case of fire, use dry chemical, carbon dioxide, alcohol, or polymer foam to extinguish.
Storage: Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents/container in accordance with all local/regional/national regulations.

2.2. OTHER HAZARDS

None specified.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS #	% w/w
Azadirachtin	11141-17-6	4.5

Hazardous Ingredient(s)	Classification	CAS #	% w/w
Solvent (Trade secret)	Category 4: Flammable liquid	N/A	30-55

SECTION 4: FIRST AID MEASURES

4.1. DESCRIPTION OF FIRST AID MEASURES

Treat symptomatically.

Eye Contact: Immediately flush with water holding eye open for 15-20 minutes. Remove contact lenses after 5 minutes if present and continue rinsing eye. Seek medical attention if irritation persists.

Skin Contact: Remove contaminated clothing and wash affected area with plenty of soap and water. If irritation persists call poison control or doctor for treatment advice

Inhalation: Move to fresh air. If still feeling unwell, with label in hand call poison control or doctor for treatment advice

Ingestion: If ingested, with label in hand call poison control or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything to an unconscious person.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Eye, skin, and throat irritation.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

None specified.

SECTION 5: FIREFIGHTING MEASURES

5.1. EXTINGUISHING MEDIA

Suitable Extinguishing Media: Dry chemical, carbon dioxide, alcohol or polymer foam

Unsuitable Extinguishing Media: None known

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Hazardous combustion products: None known.
Other precautions: Warning. Combustible liquid

5.3. ADVICE FOR FIREFIGHTERS;

Protection of Firefighters: Warning. Combustible liquid. Keep upwind of fire. Wear protective clothing and self-contained breathing apparatus. Fight fire from a safe distance.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

For non-emergency personnel: Avoid substance contact. Ensure adequate ventilation. Evacuate the area and observe emergency procedures. Goggles or safety glasses are suggested. Wear long-sleeved shirt, long pants, chemical resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, or polyvinyl chloride), shoes, and socks.

For emergency responders: Use appropriate personal protective equipment. Isolate the hazard 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 wash water or rinse water.

6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Methods for Containment and Clean-Up: Caution: spillages may be slippery. For small spills, contain the spill and stop the flow. Wear SCBA, rubber boots, and heavy rubber glove. Shut off sources of ignition. Dike around spill, adsorb on sand or similar, and place in closed containers for disposal. Ventilate area and wash spill site after material pick-up. Avoid run-off into storm sewers and ditches, which lead to waterways.

Other Information: Dispose of in accordance with all Federal, State and local procedures.

6.4. REFERENCE TO OTHER SECTIONS

Refer to Section 8 for occupational exposure limits and risk management measures and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING

Wear long pants, long sleeved shirt, chemical resistant gloves shoes plus socks, protective eyewear when handling this product. Remove clothing immediately if pesticide gets inside, then wash thoroughly and put on clean clothing.

Revision Date: 2021-07-07

Replaces: N/A

Reason for Revision: New country-specific SDS

Wash clothes separately before reuse. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Wash PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Combustible. Do not store near heat or flame.

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Do not store above 100°F or below -20°F for extended periods of time. Keep containers tightly closed when not in use.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. CONTROL PARAMETERS

Substance	Occupational Exposure Limits
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N/A	OSHA PELs: not established ACGIH TLVs: not established No occupational limit assigned.
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8.2. EXPOSURE CONTROLS

Wear protective equipment to comply with good occupational hygiene practice. Do not eat, drink or smoke at the workplace.

8.2.1. ENGINEERING CONTROLS:

None.

8.2.2. PERSONAL PROTECTIVE EQUIPMENT:

Applicators and other handlers must wear:

RESPIRATORY PROTECTION

- None specified.

EYE/FACE PROTECTION

- Safety glasses or goggles

SKIN PROTECTION

- Long-sleeved shirt
- Long pants
- Socks and shoes

8.2.3. ENVIRONMENTAL EXPOSURE CONTROLS

Dike around spill, adsorb on sand or similar, and place in closed containers for disposal. Ventilate area and wash spill site after material pick-up. Avoid run-off into storm sewers and ditches, which lead to waterways.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Dark brown liquid
Odor:	Aromatic
Odor Threshold:	Not determined
pH:	5.0 – 6.0 (0.5% emulsion)
Melting Point / Freezing Point:	Not determined
Initial Boiling Point:	Not determined
Boiling Range:	Not determined
Flash Point:	65-70°C [CIPAC MT 12]
Evaporation Rate:	Not determined
Flammability (solid, gas):	Not applicable
Lower & Upper Flammability Limits:	Not determined
Vapor Pressure:	Not determined
Vapor Density (Air = 1):	Not determined
Density:	0.9 – 1.0 g/mL @ 25°C
Solubility:	Soluble in water; immiscible in hydrocarbon oil
Partition Coefficient (n-octanol/water):	Not determined
Auto-ignition Temperature:	Not determined
Decomposition Temperature:	Not determined
Viscosity:	28±13 mPa·s
Other relevant properties:	None

9.2. OTHER INFORMATION

Percent volatile by weight:	35 – 55%
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SECTION 10: STABILITY AND REACTIVITY

10.1. REACTIVITY

No known or expected hazardous reactions when handled and stored according to stated provisions.

10.2. CHEMICAL STABILITY

Chemically stable under the conditions of storage, handling and use.

SECTION 12: ECOLOGICAL INFORMATION

12.1. TOXICITY

Species	Test	Study Duration	Conditions	Test substance	Results
Northern bobwhite (<i>Colinus virginianus</i>)	Avian acute	14-day	Oral capsule	Technical AI	LD ₅₀ > 2,250 mg/kg bw
Northern bobwhite (<i>Colinus virginianus</i>)	Avian dietary	8-day	Dietary	Technical AI	LC ₅₀ > 5,620 ppm
Sheepshead minnow (<i>Cyprinodon variegatus</i>)	Acute freshwater fish	96-hour	Flow-through	Technical AI	LC ₅₀ = 44.1 mg/L
Water flea (<i>Daphnia magna</i>)	Acute freshwater invertebrate	48-hour	Flow-through	Technical AI	LC ₅₀ = 10 mg/L
Honeybee (<i>Apis mellifera carnica</i> L)	Nontarget pollinator	48-hour	Acute contact	Technical AI	LD ₅₀ > 25 µg/bee

12.2. PERSISTENCE AND DEGRADABILITY

Azadirachtin exhibits rapid degradation and low persistence in soil.

12.3. BIOACCUMULATIVE POTENTIAL

Azadirachtin is not bioaccumulative in aquatic organisms, such as fish.

12.4. MOBILITY IN SOIL

Azadirachtin rapidly degrades in soil and is not expected to be mobile.

12.5. OTHER ADVERSE EFFECTS

None noted.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. WASTE TREATMENT METHODS

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. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: 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 ¼ 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.

SECTION 14: TRANSPORTATION INFORMATION

UN NUMBER	UN PROPER SHIPPING NAME	TRANSPORT HAZARD CLASS(ES)
<u>Ground—Non-bulk:</u> None <u>Ground—Bulk:</u> UN1993 <u>Sea/Air:</u> UN1993	<u>Ground—Non-bulk:</u> not regulated; Combustible liquid NOS (hexanol) <u>Ground—Bulk:</u> Flammable liquid NOS (hexanol) <u>Sea/Air:</u> Flammable liquid NOS (hexanol)	<u>Ground—Non-bulk:</u> None <u>Ground—Bulk:</u> 3 <u>Sea/Air:</u> 3
PACKING GROUP	ENVIRONMENTAL HAZARDS	SPECIAL PRECAUTIONS FOR USER
<u>Ground—Non-bulk:</u> None <u>Ground—Bulk:</u> PGIII <u>Sea/Air:</u> PGIII	Not applicable	None
TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL73/78 AND THE IBC CODE		
Not applicable		

SECTION 15: REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

EPA/FIFRA		
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 may differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticidal chemicals. The pesticide label also includes other important information, including directions for use. <ul style="list-style-type: none"> EPA Signal Word: Caution 		
OSHA	TSCA STATUS	CERCLA REPORTABLE QUANTITY
Not applicable	Exempt	Not applicable
SARA TITLE III	RCRA STATUS	OTHER
Section 302: Not applicable Section 311/312: Not applicable Section 313: Not applicable	Not applicable	None

SECTION 16: OTHER INFORMATION

ABBREVIATIONS

- OSHA US Occupational Health and Safety Administration
- EPA US Environmental Protection Agency
- FIFRA Federal Insecticide, Fungicide, and Rodenticide Act
- CERCLA Comprehensive Environmental Response, Compensation, and Liability Act (Superfund)
- RCRA Resource Conservation and Recovery Act
- SARA Superfund Amendments and Reauthorization Act
- TSCA Toxic Substances Control Act
- PEL Permissible exposure limit

STOT	Specific target organ toxicity
TLV	Threshold limit value
TWA	Time-weighted average
LD ₅₀	Median lethal dose: dose resulting in 50% mortality in the test species
LC ₅₀	Median lethal concentration: concentration resulting in 50% mortality in the test species
EC ₅₀	Median effective concentration: concentration resulting in 50% reduction in algae growth or algae growth rate, or <i>Daphnia</i> immobilization
PPE	Personal protective equipment
PBT	Persistent, bioaccumulative, and toxic
vPvB	Very persistent, very bioaccumulative
MARPOL 73/78	International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 (Marine Pollution 1973/1978 ,

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