

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Trade name : Starbar QuikStrike Fly Abatement Strip
 Synonyms : EPA Reg. No.: 2724-461, 25100D

1.2. Recommended use and restrictions on use

Recommended use : Insect growth regulator. Insecticide.
 Restrictions on use : Keep out of reach of children. Do not use or store near heat or open flame. Avoid contact with eyes, skin or clothing.

1.3. Supplier

Wellmark International
 1501 E. Woodfield Road, Suite 200W
 Schaumburg, IL 60173 - United States
 www.quikstrike.com

1.4. Emergency telephone number

Emergency number : 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

Flammable liquids Category 4	Combustible liquid
Skin corrosion/irritation Category 1B	Causes severe skin burns and eye damage
Serious eye damage/eye irritation Category 1	Causes serious eye damage
Skin sensitization, category 1A	May cause an allergic skin reaction

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS05



GHS07

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : Combustible liquid
 Causes severe skin burns and eye damage
 May cause an allergic skin reaction
 Causes serious eye damage

Precautionary statements (GHS-US) : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 Do not breathe 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 swallowed: rinse mouth. Do NOT induce vomiting
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
 If inhaled: Remove person to fresh air and keep comfortable for breathing
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a poison center or doctor
 If skin irritation or rash occurs: Get medical advice/attention.
 Wash contaminated clothing before reuse.
 In case of fire: Use dry chemical, CO₂, water spray or regular foam to extinguish.
 Store in a well-ventilated place. Keep cool.
 Store locked up.

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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

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
9-Tricosene, (Z) (Ampoule)	(CAS-No.) 27519-02-4	22.3
Butyric acid (Ampoule)	(CAS-No.) 107-92-6	33.3
Trimethylamine, hydrochloride (Ampoule)	(CAS-No.) 593-81-7	33.4
Nithiazine (2H-1,2-Thiazine, Tetrahydro-2-(nitromethylene) (Strip)	(CAS-No.) 58842-20-9	1
Corn starch (Strip)	(CAS-No.) 9005-25-8	5 - 10
Sucrose	(CAS-No.) 57-50-1	10 - 20
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. Rinse skin with water/shower. Remove/Take off immediately all 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 : Causes skin burns. May cause an allergic skin reaction in individuals with a sensitivity to Z-9 Tricosene.
- Symptoms/effects after eye contact : Causes serious eye damage.

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

5.2. Specific hazards arising from the chemical

- Fire hazard : Ampoule: Combustible liquid.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Evacuate area. Do not allow fire fighting water to escape into waterways or sewers. Eliminate all ignition sources if safe to do so.
- 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. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes.

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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.
- Emergency procedures : ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate unnecessary personnel. Stop leak if safe to do so. Ventilate area. Stay upwind. Wear appropriate personal protective equipment, avoid direct contact.

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. Keep away from fire, sparks, and heated surfaces.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Avoid contact with skin and eyes.
- Hygiene measures : 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 container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not refrigerate. Store in a cool (below 77°F/25°C) dry place inaccessible to children and pets.
- Incompatible materials : Heat, sparks, open flame. Strong oxidizers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Corn starch (Strip) (9005-25-8)		
ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
ACGIH	Remark (ACGIH)	Dermatitis
OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)
NIOSH	NIOSH REL (TWA) (mg/m ³)	10 mg/m ³ (total dust) 5 mg/m ³ (respirable dust)
Sucrose (57-50-1)		
ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
ACGIH	Remark (ACGIH)	Dental erosion
OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)
NIOSH	NIOSH REL (TWA) (mg/m ³)	10 mg/m ³ (total dust) 5 mg/m ³ (respirable dust)

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:

Wear chemical splash safety goggles

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Skin and body protection:

Wear long sleeved shirt, long pants, socks and shoes

Respiratory protection:

In case of insufficient ventilation, use NIOSH approved respiratory protection.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Yellow strip enclosed in perforated plastic holder with ampoule containing clear pale yellow to amber liquid
Color	: Strip: yellow. Ampoule: pale yellow to amber
Odor	: Chemical-like
Odor threshold	: No data available
pH	: Strip: 10.4 in 1% aq. solution
Melting point	: Nithiazine (2H-1,2-Thiazine, Tetrahydro-2-(nitromethylene) will decompose before melting.
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 71.7 °C (161° F)
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	: Strip: 1.16 Water = 1
Bulk density	: Strip: 60 lb(s)/ft3
Solubility	: No data available
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

No additional information available

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

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents.

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10.6. Hazardous decomposition products

Ampoule: Combustible liquid - may produce carbon dioxide and/or carbon monoxide upon heating.

Strip: Decomposes upon heating and may produce toxic vapors/gases.

Incomplete combustion can also produce formaldehyde.

Potentially toxic/irritating fumes may be evolved from heated material. At temperatures (>350°F, >177°C), polyethylenes can release vapors and gases, which are irritating to the mucous membranes of the eyes, mouth, throat, and lungs.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Starbar QuikStrike Fly Abatement Strip	
pH	Strip: 10.4 in 1% aq. solution
9-Tricosene, (Z) (Ampoule) (27519-02-4)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 5 mg/l
Nithiazine (2H-1,2-Thiazine, Tetrahydro-2-(nitromethylene) (Strip) (58842-20-9)	
LD50 oral rat	285 - 314 mg/kg
LD50 dermal rat	> 2000 mg/kg

GHS-US Properties	Classification
Acute toxicity	Not classified
Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/irritation	Causes serious eye damage.
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
Aspiration hazard	Not classified

Potential health effects

Inhalation

Acute : Ampoule: May cause nasal and respiratory irritation.

Skin

Acute : Ampoule: May cause an allergic skin reaction in individuals with a sensitivity to Z-9 Tricosene. Causes serious skin burns.

Eye

Acute : Ampoule: Causes serious eye damage.

Ingestion

Acute : Ampoule: May be harmful if swallowed.

Mutagenicity : Not classified. Nithiazine has been tested and found negative for mutagenicity potential.

Carcinogenicity : Z-9 Tricosene is not classified as a carcinogen by NTP, IARC and OSHA.

Reproductive Effects : Nithiazine has been tested and does not cause birth defects.

SECTION 12: Ecological information

12.1. Toxicity

9-Tricosene, (Z) (Ampoule) (27519-02-4)	
LC50 Acute fish 1	> 1000 mg/l (Exposure time: 96h - Rainbow trout)
LC50 Acute fish 2	> 1000 mg/l (Exposure time: 96h - Blue gill)
EC50 Daphnia 1	1.08 mg/l (Exposure time: 48h - Daphnia magna)
Nithiazine (2H-1,2-Thiazine, Tetrahydro-2-(nitromethylene) (Strip) (58842-20-9)	
LC50 Acute fish 1	110 mg/l (Exposure time: 96h - Rainbow trout)

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Nithiazine (2H-1,2-Thiazine, Tetrahydro-2-(nitromethylene) (Strip) (58842-20-9)

LC50 Acute fish 2	140 mg/l (Exposure time: 96h - Blue gill)
EC50 Daphnia 1	33 mg/l (Exposure time: 48h - Daphnia magna)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

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	UN2820	Butyric Acid Mixture	8	III	RQ: Butyric acid = 5,000 lbs.
IMDG	UN2820	Butyric Acid Mixture	8	III	Not applicable
IATA	UN2820	Butyric Acid Mixture	8	III	Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

9-Tricosene, (Z) (Ampoule) (27519-02-4)

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

Butyric acid (Ampoule) (107-92-6)

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

CERCLA RQ 5000 lb

Trimethylamine, hydrochloride (Ampoule) (593-81-7)

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

Corn starch (Strip) (9005-25-8)

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

EPA TSCA Regulatory Flag XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).

Sucrose (57-50-1)

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

FIFRA Labelling

EPA Registration Number 2724-461

This chemical 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-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

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FIFRA Signal word	Caution
FIFRA Precautionary Statement	KEEP OUT OF REACH OF CHILDREN.
FIFRA Hazards to Humans and Domestic Animals	Avoid contact with eyes.
FIFRA First Aid	IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

15.2. US State regulations

No additional information available

SECTION 16: Other information

Date of issue : 11 April 2016
Revision date : 28 September 2018

Indication of changes:

Sec. 14 - Revised transportation description.

SDS US (GHS HazCom 2012) - CGP

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