

## HALEX GT

Date: 1/30/2015

Replaces: 5/7/2014

### 1. PRODUCT IDENTIFICATION

Product identifier on label: **HALEX GT**

Product No.: A15189G

Use: Herbicide

Manufacturer: Syngenta Crop Protection, LLC  
Post Office Box 18300  
Greensboro NC 27419

Manufacturer Phone: 1-800-334-9481

**Emergency Phone: 1-800-888-8372**

### 2. HAZARDS IDENTIFICATION

Classifications: Skin Sensitizer: Category 1B  
Eye Damage/Irritation: Category 2B

Signal Word (OSHA): Warning

Hazard Statements: May cause an allergic skin reaction  
Causes eye irritation

Hazard Symbols:



Precautionary Statements: Avoid breathing mist, vapors, spray.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves, protective clothing, eye protection.  
If on skin: Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical advice.  
See Section 4 First Aid Measures.  
Wash contaminated clothing before reuse.  
Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: Flammable hydrogen gas may be formed on contact with incompatible metals. See "Conditions to Avoid", Section 10.

## HALEX GT

Date: 1/30/2015

Replaces: 5/7/2014

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	Common Name	CAS Number	Concentration
Other ingredients	Other ingredients	Trade Secret	56.95%
Acetamide, 2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl)-, (S)	S-Metolachlor	87392-12-9	20.50%
Glyphosate, N-(phosphonomethyl) glycine	Glyphosate Acid	1071-83-6	20.50%
2-[4-(methylsulfonyl)-2-nitrobenzoyl]-1,3-cyclohexanedione	Mesotrione	104206-82-8	2.05%

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

**4. FIRST AID MEASURES**

Have the product container, label or Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

- Ingestion:** If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
- Eye Contact:** If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
- Skin Contact:** If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
- Inhalation:** If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Most important symptoms/effects:

- Eye irritation
- Allergic skin reaction

Indication of immediate medical attention and special treatment needed:

There is no specific antidote if this product is ingested.

Treat symptomatically.

Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

**5. FIRE FIGHTING MEASURES**

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO<sub>2</sub> extinguishing media. If water is used to fight fire, dike and collect runoff.

Specific Hazards:

This product may form flammable and explosive hydrogen gas when in contact with galvanized or unlined steel.

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage.

## HALEX GT

Date: 1/30/2015

Replaces: 5/7/2014

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

### 7. HANDLING AND STORAGE

Precautions for safe handling:

Spray solutions of this product should be mixed, stored and applied using only plastic, plastic-lined steel, stainless steel or fiberglass containers. Concentrate should not be stored in galvanized steel, carbon steel, aluminum or unlined steel containers.

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities:

Not Applicable

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.**

**FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.**

#### Occupational Exposure Limits:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Other ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable
S-Metolachlor	Not Established	Not Established	5 mg/m <sup>3</sup> TWA	Syngenta
Glyphosate Acid	Not Established	Not Established	5 mg/m <sup>3</sup> TWA	Syngenta
Mesotrione	Not Established	Not Established	5 mg/m <sup>3</sup> TWA	Syngenta

#### Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

#### Individual protection measures:

Ingestion:

Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

## HALEX GT

Date: 1/30/2015

Replaces: 5/7/2014

## Eye Contact:

Where eye contact is likely, use chemical splash goggles.

## Skin Contact:

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.

## Inhalation:

A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH approved respirator with any N, R, P or HE filter.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: Tan liquid

Odor: Faint paint-like odor

Odor Threshold: Not Available

pH: 3.6 (1% solution in deionized H<sub>2</sub>O @ 77°F [25°C])

Melting point/freezing point: Not Applicable

Initial boiling point and boiling range: Not Available

Flash Point (Test Method): &gt; 212°F (Abel-Pensky CC)

Flammable Limits (% in Air): Not Available

Flammability: Not Available

Vapor Pressure: Glyphosate Acid < 1.8 x 10<sup>-7</sup> mmHg @ 77°F (25°C)Mesotrione < 4.3 x 10<sup>-8</sup> mmHg @ 68°F (20°C)S-Metolachlor 2.8 x 10<sup>-5</sup> mmHg @ 77°F (25°C)

Vapor Density: Not Available

Relative Density: 1.22 g/ml

Solubility (ies): Glyphosate Acid 0.91 g/100ml @ 68°F (20°C)

Mesotrione 160 mg/l @ 68°F (20°C) (99.7% pure)

S-Metolachlor 0.48 g/l @ 77°F (25°C)

Partition coefficient: n-octanol/water: Not Available

Autoignition Temperature: Not Available

Decomposition Temperature: Not Available

Viscosity: Not Available

Other: None

**10. STABILITY AND REACTIVITY**

Reactivity: Not reactive.

Chemical stability: Stable under normal use and storage conditions.

Possibility of hazardous reactions: Will not occur.

Conditions to Avoid: Concentrate should not be stored in galvanized steel, carbon steel, aluminum or unlined steel containers. Spray solutions should not be mixed, stored or applied in containers other than plastic, plastic-lined steel, stainless steel or fiberglass.

## HALEX GT

Date: 1/30/2015

Replaces: 5/7/2014

Incompatible materials: None known.

Hazardous Decomposition Products: Flammable hydrogen gas may be formed on contact with incompatible metals. See "Conditions to Avoid", Section 10.

### 11. TOXICOLOGICAL INFORMATION

#### Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Eye irritation, Rash, redness or itching

Delayed, immediate and chronic effects of exposure: Eye irritation, Allergic skin reaction

#### Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

Ingestion:	Oral (LD50 Rabbit) :	> 5000 mg/kg body weight (based on a substantially similar formulation)
Dermal:	Dermal (LD50 Rabbit) :	> 6147 mg/kg body weight (based on a substantially similar formulation)
Inhalation:	Inhalation (LC50 Rat) :	> 1.2 mg/l air - 4 hours (based on a substantially similar formulation)
Eye Contact:	Minimally Irritating (Rabbit)	
Skin Contact:	Non-Irritating (Rabbit)	
Skin Sensitization:	A skin sensitizer in animal tests (Guinea Pig)	

#### Reproductive/Developmental Effects

Glyphosate Acid: No developmental effects seen in animal studies.

Mesotrione : Did not show reproductive effects in animal experiments.

S-Metolachlor: Did not show reproductive effects in animal experiments.

#### Chronic/Subchronic Toxicity Studies

Glyphosate Acid: Rat subchronic 90-day study - NOEL of 5000 ppm (410 - 440 mg/kg). Body weight reduction, clinical chemistry changes.

No evidence of neurotoxic effects in acute and subchronic rat studies (NOEL both studies 2000 mg/kg). No evidence of delayed neurotoxic effects in hens (NOEL 2000 mg/kg).

Mesotrione : No adverse effect has been observed in chronic toxicity tests.

S-Metolachlor: No adverse effect has been observed in chronic toxicity tests.

#### Carcinogenicity

Glyphosate Acid: Not genotoxic in Ames, mouse lymphoma, human lymphocyte and mouse micronucleus tests. No mutagenic effects seen in animal studies.

Mesotrione : Did not show carcinogenic effects in animal experiments.

S-Metolachlor: Did not show carcinogenic effects in animal experiments.

Chemical Name	NTP/IARC/OSHA Carcinogen
Other ingredients	No

## HALEX GT

Date: 1/30/2015

Replaces: 5/7/2014

Acetamide, 2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl)-, (S)	No
Glyphosate, N-(phosphonomethyl) glycine	No
2-[4-(methylsulfonyl)-2-nitrobenzoyl]-1,3-cyclohexanedione	No

Other Toxicity Information

None

Toxicity of Other Components

Other ingredients  
Not Applicable

Target OrgansActive Ingredients

Glyphosate Acid:	Skin, eye
Mesotrione :	Blood, eye, kidney, liver.
S-Metolachlor:	Liver

Inert Ingredients

Other ingredients: Not Applicable

**12. ECOLOGICAL INFORMATION**

## Eco-Acute Toxicity

## S-Metolachlor:

Fish (Rainbow Trout) 96-hour LC50 1.23 mg/l  
Green Algae 96-hour ErC50 0.077 mg/l  
Invertebrate (Water Flea) 48-hour EC50 11.24 mg/l

## Glyphosate Acid:

Fish (Bluegill Sunfish) 96-hour LC50 45 ppm  
Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 134 ppm  
Green Algae 4-day EC50 12.54 ppm  
Bird (Bobwhite Quail) 14-day LD50 > 2000 mg/kg

## Mesotrione :

Fish (Rainbow Trout) 96-hour LC50 >120 mg/l  
Fish (Bluegill Sunfish) 96-hour LC50 >120 mg/l  
Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 900 mg/l  
Green Algae 72-hour EbC50 4.5 mg/l

## Environmental Fate

## Glyphosate Acid:

The information presented here is for the active ingredient, glyphosate.  
Not persistent in soil. Immobile in soil. Sinks in water (after 24 h).

## Mesotrione :

The substance has low potential for bioaccumulation. Mesotrione has medium to high mobility in soil.

## HALEX GT

Date: 1/30/2015

Replaces: 5/7/2014

S-Metolachlor:

The information presented here is for the active ingredient, S-Metolachlor.  
Low bioaccumulation potential. Not persistent in soil. Stable in water. Sinks in water (after 24 h).

### 13. DISPOSAL CONSIDERATIONS

Disposal:

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

### 14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA  
Not regulated

Comments

Water Transport - International  
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S.  
(S-Metolachlor/Glyphosate), Marine Pollutant  
Hazard Class: Class 9  
Identification Number: UN 3082  
Packing Group: PG III

Air Transport - International  
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S.  
(S-Metolachlor/Glyphosate)  
Hazard Class: Class 9  
Identification Number: UN 3082  
Packing Group: PG III

### 15. REGULATORY INFORMATION

Pesticide Registration:

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:

Caution: Harmful if inhaled. Causes moderate eye irritation. Avoid breathing spray mist. Avoid contact with eyes or clothing. This product may cause skin sensitization reactions in some people.

EPA Registration Number(s):

100-1282

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: None

## HALEX GT

Date: 1/30/2015

Replaces: 5/7/2014

CERCLA/SARA 304 Reportable Quantity (RQ):

None

RCRA Hazardous Waste Classification (40 CFR 261):

Not Applicable

TSCA Status:

Exempt from TSCA, subject to FIFRA

### 16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 2  
 Flammability: 1  
 Instability: 0

HMIS Hazard Ratings

Health: 2  
 Flammability: 1  
 Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme
*	Chronic

Syngenta Hazard Category: C,S

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 4/18/2007

Revision Date: 1/30/2015

Replaces: 5/7/2014

Section(s) Revised: 1-16

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.