

**HALEX GT**

Version 2 - This version replaces all previous versions.  
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**SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifier**

Product name : **HALEX GT**

Design code : A15189G

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

Use : Herbicide

**1.3 Details of the supplier of the safety data sheet**

Company : Syngenta Crop Protection AG  
Postfach  
CH-4002 Basel  
Switzerland

Telephone : +41 61 323 11 11

Telefax : +41 61 323 12 12

E-mail address : sds.ch@syngenta.com

**1.4 Emergency telephone number**

**Emergency tele-  
phone number** : +44 1484 538444

**SECTION 2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

Classification according to Regulation (EU) 1272/2008

Skin sensitization	Category 1	H317
Acute aquatic toxicity	Category 1	H400
Chronic aquatic toxicity	Category 1	H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

**Xi, Irritant**  
**N, Dangerous for the environment**  
**R43: May cause sensitization by skin contact.**  
**R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.**

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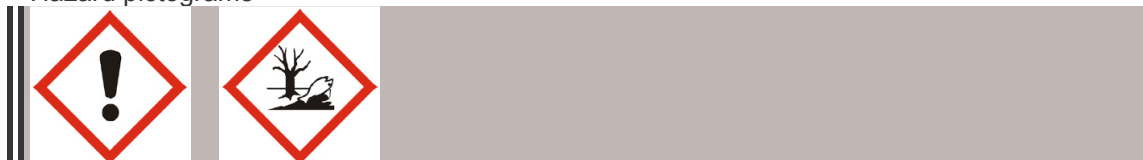
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### 2.2 Label elements

Labelling: Regulation (EC) No. 1272/2008

#### Hazard pictograms



Signal word	:	Warning	
Hazard statements	:	H317 H410	May cause an allergic skin reaction. Very toxic to aquatic life with long lasting effects.
Precautionary statements	:	P102 P273 P280 P302 + P352 P391 P501	Keep out of reach of children. Avoid release to the environment. Wear protective gloves/ protective clothing. IF ON SKIN: Wash with plenty of soap and water. Collect spillage. Dispose of contents/ container to an approved waste disposal plant.
Supplemental information	:	EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Hazardous components which must be listed on the label:

- S-metolachlor

Labelling: EU Directives 67/548/EEC or 1999/45/EC

#### Symbol(s)



R-phrases(s)	:	R43 R50/53	May cause sensitization by skin contact. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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S-phrase(s)	:	S 2	Keep out of the reach of children.
		S13	Keep away from food, drink and animal feedingstuffs.
		S20/21	When using do not eat, drink or smoke.
		S35	This material and its container must be disposed of in a safe way.
		S36/37	Wear suitable protective clothing and gloves.
		S57	Use appropriate container to avoid environmental contamination.
Additional Labelling	:	To avoid risks to man and the environment, comply with the instructions for use.	

Hazardous components which must be listed on the label:

- S-metolachlor

### 2.3 Other hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixtures

#### Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration
glyphosate	1071-83-6 213-997-4	N, Xi R41 R51/53	Eye Dam.1; H318 Aquatic Chronic2; H411	20.5 % WW
S-metolachlor	87392-12-9	Xi, N R43 R50/53	Skin Sens.1; H317 Aquatic Acute1; H400 Aquatic Chronic1; H410	20.5 % WW
mesotrione	104206-82-8	N R50/53	Aquatic Acute1; H400 Aquatic Chronic1; H410	2.05 % WW
tolu-ene-4-sulfonic acid	104-15-4 203-180-0	Xi R36/37/38	Skin Irrit.2; H315 Eye Irrit.2; H319 STOT SE3; H335	1 - 5 % WW

Substances for which there are Community workplace exposure limits.

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

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**SECTION 4. FIRST AID MEASURES****4.1 Description of first aid measures**

- General advice : Have the product container, label or Material Safety Data Sheet with you when calling the Syngenta emergency number, a poison control center or physician, or going for treatment.
- Inhalation : Move the victim to fresh air.  
If breathing is irregular or stopped, administer artificial respiration.  
Keep patient warm and at rest.  
Call a physician or poison control centre immediately.
- Skin contact : Take off all contaminated clothing immediately.  
Wash off immediately with plenty of water.  
If skin irritation persists, call a physician.  
Wash contaminated clothing before re-use.
- Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Remove contact lenses.  
Immediate medical attention is required.
- Ingestion : If swallowed, seek medical advice immediately and show this container or label.  
Do NOT induce vomiting.

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

- Symptoms : No information available.

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

- Medical advice : There is no specific antidote available.  
Treat symptomatically.

**SECTION 5. FIRE-FIGHTING MEASURES****5.1 Extinguishing media**

Extinguishing media - small fires  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
Extinguishing media - large fires  
Alcohol-resistant foam  
or  
Water spray

Do not use a solid water stream as it may scatter and spread fire.

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**5.2 Special hazards arising from the substance or mixture**

As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).

Exposure to decomposition products may be a hazard to health.

**5.3 Advice for firefighters**

Wear full protective clothing and self-contained breathing apparatus.

Do not allow run-off from fire fighting to enter drains or water courses.

Cool closed containers exposed to fire with water spray.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures**

Refer to protective measures listed in sections 7 and 8.

**6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so.

Do not flush into surface water or sanitary sewer system.

**6.3 Methods and materials for containment and cleaning up**

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

If the product contaminates rivers and lakes or drains inform respective authorities.

**6.4 Reference to other sections**

Refer to protective measures listed in sections 7 and 8.

Refer to disposal considerations listed in section 13.

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### SECTION 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

No special protective measures against fire required.  
 Avoid contact with skin and eyes.  
 When using do not eat, drink or smoke.  
 For personal protection see section 8.

#### 7.2 Conditions for safe storage, including any incompatibilities

No special storage conditions required.  
 Keep containers tightly closed in a dry, cool and well-ventilated place.  
 Keep out of the reach of children.  
 Keep away from food, drink and animal feedingstuffs.

#### 7.3 Specific end uses

Registered Crop Protection products: For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

Components	Exposure limit(s)	Type of exposure limit	Source
glyphosate	10 mg/m <sup>3</sup>	8 h TWA	SYNGENTA
mesotrione	10 mg/m <sup>3</sup>	8 h TWA	SYNGENTA
S-metolachlor	10 mg/m <sup>3</sup>	8 h TWA	SYNGENTA

The following recommendations for exposure controls/personal protection are intended for the manufacture, formulation and packaging of the product.

#### 8.2 Exposure controls

Engineering measures : Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.  
 The extent of these protection measures depends on the actual risks in use.  
 If airborne mists or vapors are generated, use local exhaust ventilation controls.  
 Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit.  
 Where necessary, seek additional occupational hygiene advice.

Protective measures : The use of technical measures should always have priority over the use of personal protective equipment.  
 When selecting personal protective equipment, seek appropriate professional advice.  
 Personal protective equipment should be certified to appropriate stan-

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- dards.
- Respiratory protection : No personal respiratory protective equipment normally required.  
A particulate filter respirator may be necessary until effective technical measures are installed.
- Hand protection : Chemical resistant gloves should be used.  
Gloves should be certified to an appropriate standard.  
Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure.  
The breakthrough time of gloves varies according to the thickness, material and manufacturer.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.  
Suitable material  
Nitrile rubber
- Eye protection : Eye protection is not usually required.  
Follow any site specific eye protection policies.
- Skin and body protection : No special protective equipment required.  
Select skin and body protection based on the physical job requirements.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

- Physical state : liquid
- Form : no data available
- Colour : tan
- Odour : Faint latex paint
- Odour Threshold : no data available
- pH : 3.6 at 1 % w/v (25 °C)
- Melting point/range : no data available
- Boiling point/boiling range : no data available
- Flash point : > 100 °C Pensky-Martens c.c.
- Evaporation rate : no data available
- Flammability (solid, gas) : no data available
- Lower explosion limit : no data available
- Upper explosion limit : no data available
- Vapour pressure : no data available
- Relative vapour density : no data available
- Density : 1.22 g/ml
- Solubility in other solvents : no data available
- Partition coefficient:  
n-octanol/water : no data available
- Autoignition temperature : no data available
- Thermal decomposition : no data available
- Viscosity, dynamic : no data available
- Viscosity, kinematic : no data available
- Explosive properties : no data available
- Oxidizing properties : no data available

### 9.2 Other information

- : no data available

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### SECTION 10. STABILITY AND REACTIVITY

#### 10.1 Reactivity

No information available.

#### 10.2 Chemical stability

No information available.

#### 10.3 Possibility of hazardous reactions

None known.

Hazardous polymerisation does not occur.

#### 10.4 Conditions to avoid

No information available.

#### 10.5 Incompatible materials

No information available.

#### 10.6 Hazardous decomposition products

Combustion or thermal decomposition will evolve toxic and irritant vapors.

### SECTION 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

Acute oral toxicity : LD50 female rat, > 5,000 mg/kg  
The toxicological data has been taken from products of similar composition.

Acute inhalation toxicity : LC50 male and female rat, > 1.2 mg/l , 4 h  
Highest attainable concentration  
The toxicological data has been taken from products of similar composition.

Acute dermal toxicity : LD50 male and female rat, > 6,147 mg/kg  
The toxicological data has been taken from products of similar composition.

Skin corrosion/irritation : rabbit: **Non-irritating**

Serious eye damage/eye irritation : rabbit: Minimally Irritating

Respiratory or skin sensitization : **A skin sensitizer in animal tests.**  
**The toxicological data has been taken from products of similar composition.**

#### Germ cell mutagenicity

glyphosate : Did not show mutagenic effects in animal experiments.  
S-metolachlor : Did not show mutagenic effects in animal experiments.  
mesotrione : Did not show mutagenic effects in animal experiments.



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### Carcinogenicity

- glyphosate : Did not show carcinogenic effects in animal experiments.
- S-metolachlor : Did not show carcinogenic effects in animal experiments.
- mesotrione : Did not show carcinogenic effects in animal experiments.

### Teratogenicity

- glyphosate : Did not show teratogenic effects in animal experiments.
- S-metolachlor : Did not show teratogenic effects in animal experiments.

### Reproductive toxicity

- glyphosate : Did not show reproductive toxicity effects in animal experiments.
- S-metolachlor : Did not show reproductive toxicity effects in animal experiments.
- mesotrione : Did not show reproductive toxicity effects in animal experiments.

### STOT - repeated exposure

- glyphosate : No adverse effect has been observed in chronic toxicity tests.
- S-metolachlor : No adverse effect has been observed in chronic toxicity tests.
- mesotrione : No adverse effect has been observed in chronic toxicity tests.

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## SECTION 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

- Toxicity to fish : LC50 *Oncorhynchus mykiss* (rainbow trout), 54 mg/l , 96 h
- Toxicity to aquatic invertebrates : EC50 *Daphnia magna* (Water flea), 69 mg/l , 48 h
- Toxicity to aquatic plants : EbC50 *Pseudokirchneriella subcapitata* (green algae), 0.071 mg/l , 72 h
- : ErC50 *Pseudokirchneriella subcapitata* (green algae), 0.20 mg/l , 72 h
- : EbC50 Frond growth *Lemna gibba* (duckweed), 0.12 mg/l , 7 d
- : ErC50 Frond growth *Lemna gibba* (duckweed), 0.33 mg/l , 7 d

### 12.2 Persistence and degradability

#### Stability in water

- glyphosate : Degradation half life: 302 d  
Persistent in water.
- mesotrione : Degradation half life: > 30 d at 25 °C  
Persistent in water.

#### Stability in soil

- mesotrione : Degradation half life: 6 - 105 d  
Not persistent in soil.

### 12.3 Bioaccumulative potential

- S-metolachlor : Does not bioaccumulate.
- mesotrione : The substance has low potential for bioaccumulation

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**12.4 Mobility in soil**

- glyphosate : Glyphosate is immobile in soil.  
S-metolachlor : S-metolachlor has medium mobility in soil.  
mesotrione : Mesotrione has medium to high mobility in soil.

**12.5 Results of PBT and vPvB assessment**

- mesotrione : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).  
This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

**12.6 Other adverse effects**

None known.

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**SECTION 13. DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods**

- Product : Do not contaminate ponds, waterways or ditches with chemical or used container.  
Do not dispose of waste into sewer.  
Where possible recycling is preferred to disposal or incineration.  
If recycling is not practicable, dispose of in compliance with local regulations.
- Contaminated packaging : Empty remaining contents.  
Triple rinse containers.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not re-use empty containers.

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### SECTION 14. TRANSPORT INFORMATION

#### Land transport (ADR/RID)

<b>14.1 UN number:</b>	UN 3082
<b>14.2 UN proper shipping name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (S-METOLACHLOR AND MESOTRIONE)
<b>14.3 Transport hazard class(es):</b>	9
<b>14.4 Packing group:</b>	III
<b>Labels:</b>	9
<b>14.5 Environmental hazards :</b>	Environmentally hazardous

#### Sea transport(IMDG)

<b>14.1 UN number:</b>	UN 3082
<b>14.2 UN proper shipping name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (S-METOLACHLOR AND MESOTRIONE)
<b>14.3 Transport hazard class(es):</b>	9
<b>14.4 Packing group:</b>	III
<b>Labels:</b>	9
<b>14.5 Environmental hazards :</b>	Marine pollutant

#### Air transport (IATA-DGR)

<b>14.1 UN number:</b>	UN 3082
<b>14.2 UN proper shipping name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (S-METOLACHLOR AND MESOTRIONE)
<b>14.3 Transport hazard class(es):</b>	9
<b>14.4 Packing group:</b>	III
<b>Labels:</b>	9

#### 14.6 Special precautions for user

none

#### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

### SECTION 15. REGULATORY INFORMATION

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

##### GHS-Labeling

##### Hazard pictograms



Signal word : **Warning**

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Hazard statements	: H317 H410	May cause an allergic skin reaction. Very toxic to aquatic life with long lasting effects.
Precautionary statements	: P102 P273 P280 P302 + P352 P391 P501	Keep out of reach of children. Avoid release to the environment. Wear protective gloves/ protective clothing. IF ON SKIN: Wash with plenty of soap and water. Collect spillage. Dispose of contents/ container to an approved waste disposal plant.
Remarks	: Classified using all GHS hazard classes and categories. Where the GHS contains options, the most conservative option has been chosen. Regional or national implementations of GHS may not implement all hazard classes and categories.	

Hazardous components which must be listed on the label:

- S-metolachlor

### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

## SECTION 16. OTHER INFORMATION

### Further information

Full text of R-phrases referred to under sections 2 and 3:

R36/37/38	Irritating to eyes, respiratory system and skin.
R41	Risk of serious damage to eyes.
R43	May cause sensitization by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of H-Statements referred to under sections 2 and 3.

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

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