



# Stalwart® C Herbicide

## SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200)

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

#### Product identifier

Chemical Name	Mixture
Trade Names	Stalwart® C Herbicide
CAS No.	Mixture
EPA Identification Number	EPA Reg. No. 60063-22

#### Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s)	Herbicide
Uses Advised Against	It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

#### Details of the supplier of the safety data sheet

Company Identification	Sipcam Agro USA, Inc. 2525 Meridian Parkway Durham, NC 27713 United States of America
Telephone	(919) 226-1195

#### Emergency telephone number

Emergency Phone No.	CHEMTREC 24 hr. 1-800-424-9300 / 1 (703) 527-3887 (Collect calls accepted)
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### SECTION 2: HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

OSHA HCS (29 CFR 1910.1200)	Flam. Liq. 4 (Comb. Liq.)
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#### Label elements

This is a pesticide product registered with 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 labeling information below applies to non-pesticide workplace labels. For pesticide label information, refer to Section 15.

Hazard Symbol(s)	None
Signal Word(s)	<b>WARNING</b>
Hazard Statement(s)	Combustible liquid
Precautionary Statement(s)	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear protective gloves/protective clothing/eye protection/face protection. In case of fire: Extinguish with carbon dioxide, dry chemical, foam or water spray. Store in a well-ventilated place. Keep cool. Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice. Observe directions on label and instructions for use. See Also Section 15.

#### Other hazards

Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.  
Contains: Metolachlor. May produce an allergic reaction in persons already sensitised.

#### Additional Information

None

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Composition/information on ingredients	%W/W	CAS No.	Hazard Statement(s)
Metolachlor	~ 84	51218-45-2	Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410
Proprietary emulsifier	10 - 11	Mixture	Flam. Liq. 4; H227 Acute Tox. 5; H303 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Chronic 3; H412
Naphthalene	< 1	91-20-3	Acute Tox. 4; H302 Carc. 2; H351 Aquatic Acute 1; H400 Aquatic Chronic 1; H410
Proprietary safener	2.2	Trade Secret	Acute Tox. 4; H302 Acute Tox. 4; H332 Skin Irrit. 2; H315

**Additional Information** – The exact composition is being withheld as Trade Secret in accordance with OSHA 29 CFR 1910.1200.

## SECTION 4: FIRST AID MEASURES



### Description of first aid measures

Inhalation	Remove person to fresh air and keep comfortable for breathing. If breathing is laboured, administer oxygen. Call a POISON CENTER/doctor if you feel unwell. Treat symptomatically.
Skin Contact	Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. If irritation (redness, rash, blistering) develops, get medical attention. Contaminated clothing should be laundered before reuse.
Eye Contact	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/attention.
Ingestion	Do not give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell. Rinse mouth.
<b>Most important symptoms and effects, both acute and delayed</b>	Contains: Metolachlor. May produce an allergic reaction in persons already sensitised.
<b>Indication of any immediate medical attention and special treatment needed</b>	Call a POISON CENTER or doctor/physician if you feel unwell.

## SECTION 5: FIRE-FIGHTING MEASURES

### Extinguishing Media

- Suitable Extinguishing Media
- Unsuitable Extinguishing Media

Extinguish with carbon dioxide, dry chemical, foam or water spray.  
None known.

<b>Special hazards arising from the substance or mixture</b>	Combustion or thermal decomposition will evolve toxic and irritant vapours. Forms oxides of carbon and nitrogen, also chlorine and chlorinated compounds. Decontaminate equipment or materials used in pesticide fires.
<b>Advice for fire-fighters</b>	Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>Personal precautions, protective equipment and emergency procedures</b>	Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing mist/vapours/spray. Wear suitable respiratory protective equipment if exposure to high levels of material are likely.
<b>Environmental precautions</b>	Observe directions on label and instructions for use. See Also Section 15.
<b>Methods and material for containment and cleaning up</b>	Observe directions on label and instructions for use. See Also Section 15.
<b>Reference to other sections</b>	Observe directions on label and instructions for use. See Also Section 15.
<b>Additional Information</b>	None

## SECTION 7: HANDLING AND STORAGE

<b>Precautions for safe handling</b>	Avoid breathing mist/vapours/spray. Use only outdoors or in a well-ventilated area. Wash hands and exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace. Observe directions on label and instructions for use. See Also Section 15.
<b>Conditions for safe storage, including any incompatibilities</b>	
-Storage temperature	Store at room temperature. Do not allow material to freeze.
-Incompatible materials	Strong oxidising agents.
<b>Specific end use(s)</b>	Herbicide

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters Occupational Exposure Limits

SUBSTANCE.	CAS No.	(8hr TWA)		(STEL)		Note:
		PEL (OSHA)	TLV (ACGIH)	PEL (OSHA)	TLV (ACGIH)	
Naphthalene	91-20-3	10 ppm	10 ppm	-----	-----	-----

### Exposure controls

<b>Appropriate engineering controls</b>	Do <b>NOT</b> aerosolize or atomize to produce inhalable-size particles. Use low-pressure coarse spray only. Observe directions on label and instructions for use. See Also Section 15.
<b>Personal protection equipment</b>	

Eye/face protection



Wear protective eyewear (goggles, face shield, or safety glasses).

Skin protection (Hand protection/ Other)



Gloves. Observe directions on label and instructions for use. See Also Section 15.

Respiratory protection



Observe directions on label and instructions for use. See Also Section 15.

Thermal hazards

Not normally required.

## Environmental Exposure Controls

Do not allow to enter drains, sewers or watercourses. Observe directions on label and instructions for use. See Also Section 15.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Appearance	Liquid
Colour.	Light brown
Odour	aromatic
Odour Threshold (ppm)	Not available.
pH (Value)	4.5
Melting Point (°C) / Freezing Point (°C)	Not available.
Boiling point/boiling range (°C):	234
Flash Point (°C)	85.3
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Explosive Limit Ranges	Not available.
Vapour pressure (Pascal)	Not available.
Vapour Density (Air=1)	Not available.
Density (g/ml)	1.097
Solubility (Water)	Not available.
Solubility (Other)	Not available.
Partition Coefficient (n-Octanol/water)	Not available.
Auto Ignition Point (°C)	Not available.
Decomposition Temperature (°C)	Not available.
Kinematic Viscosity (cSt)	34.12 @ 40 °C
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
<b>Other information</b>	Not available.

## SECTION 10: STABILITY AND REACTIVITY

### Reactivity

No hazardous reactions known if used for its intended purpose.

### Chemical stability

Stable under normal conditions.

### Possibility of hazardous reactions

None anticipated.

### Conditions to avoid

Incompatible materials

### Incompatible materials

Strong oxidising agents.

**Hazardous decomposition product(s)**

Combustion or thermal decomposition will evolve toxic and irritant vapours. Forms oxides of carbon and nitrogen, also chlorine and chlorinated compounds.

## SECTION 11: TOXICOLOGICAL INFORMATION

**Exposure routes:** Inhalation, Skin Contact, Eye Contact

**Information on toxicological effects**

**Substances**

Not applicable

**Mixtures**

Acute toxicity

Oral: LD50 males: 2926 mg/kg-bw (rat)  
Oral: LD50 females: 2133 mg/kg-bw (rat)  
Dermal: LD50 >5050 mg/kg-bw (rat)  
Inhalation: LC50 >2.18 mg/L (rat)

Skin corrosion/irritation

Unlikely to cause skin irritation.

Serious eye damage/irritation

Unlikely to cause eye irritation.

Respiratory or skin sensitization

It is not a skin sensitiser in animal tests.

Germ cell mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

STOT - single exposure

Not available.

STOT - repeated exposure

Not available.

Aspiration hazard

Not available.

**Substances in preparations / mixtures:**

Metolachlor (CAS No. 51218-45-2):

**Acute toxicity**

Oral: LD50 >2000 mg/kg -bw  
Dermal: LD50 >5000 mg/kg -bw  
Inhalation: LC50 >2.08 mg/l (Aerosol), 4-hr. rat

**Irritation/Corrosivity**

Causes skin irritation. Causes serious eye irritation.

**Sensitization**

May cause an allergic skin reaction.

**Repeated dose toxicity**

No data

**Carcinogenicity**

No data

NTP	IARC	ACGIH	OSHA
No.	No.	No.	No.

**Mutagenicity**

Not to be expected.

**Reproductive toxicity**

Not to be expected.

Naphthalene (CAS No. 91-20-3):

**Carcinogenicity**

NTP	IARC	ACGIH	OSHA
Yes.*	Yes.*	No.	No.

\* Contains: Naphthalene (CAS No. 91-20-3). Reasonably anticipated to be a human carcinogen (NTP) / Possible Human Carcinogen (IARC 2B).

## SECTION 12: ECOLOGICAL INFORMATION

### Ecotoxicity

Metolachlor (CAS No. 51218-45-2):

Short term	EC50 (96 hour): 3.9 - 10 mg/L (Fish) EC50 (48 hour): 25.1 mg/L (Daphnia magna) EC50 (72 hour): <1 mg/L (aquatic plants), estimated.
Long Term	NOEC (1 - 4 days): 0.038 mg/L (Duckweed)
<b>Persistence and degradability</b>	Part of the components are poorly biodegradable.
<b>Bioaccumulative potential</b>	Not determined.
<b>Mobility in soil</b>	Not determined.
<b>Results of PBT and vPvB assessment</b>	Not classified as PBT.
<b>Other adverse effects</b>	None known.

## SECTION 13: DISPOSAL CONSIDERATIONS

<b>Waste treatment methods</b>	Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice. Observe directions on label and instructions for use. See Also Section 15.
<b>Additional Information</b>	None known.

## SECTION 14: TRANSPORT INFORMATION

	<b>Land transport (U.S. DOT) *</b>	<b>Sea transport (IMDG)</b>	<b>Air transport (ICAO/IATA)</b>
<b>UN number</b>	Not classified as dangerous for transport. *	UN 3082	UN 3082
<b>Proper Shipping Name</b>		Environmentally hazardous substance, liquid, n.o.s. (Metolachlor)	
<b>Transport hazard class(es)</b>		9	9
<b>Packing group</b>		III	III
<b>Hazard label(s)</b>		Marine Pollutant	Marine Pollutant
<b>Environmental hazards</b>		Yes	Yes
<b>Special precautions for user</b>		None Assigned	None Assigned

**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable

\* For bulk shipments in U.S., shipping as NA1993, Combustible Liquid, n.o.s. (Aromatic Naphtha), Comb. Liq., PG III or UN3082, Environmentally hazardous substance, liquid, n.o.s. (Metolachlor), 9, PG III may apply. Contains a RQ substance at <1% (see Section 15).

## SECTION 15: REGULATORY INFORMATION

**Safety, health and environmental regulations/legislation specific for the substance or mixture:**

**TSCA (Toxic Substance Control Act) - Inventory Status:** This is a registered pesticide product regulated under Federal Insecticide, Fungicide, and Rodenticide Act and, therefore, the components of this product are not subject to listing on the TSCA inventory.

**EPA FIFRA Information for SDS Section 15 (Regulatory Information):**

This is a pesticide product registered with 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:

**CAUTION:** Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear protective eye wear.



# Stalwart® C Herbicide

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Wear long-sleeved shirt and long pants, socks, shoes, and gloves.

### Personal Protective Equipment (PPE):

Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves: made of Barrier Laminate, Butyl Rubber ≥ 14 mils, Nitrile Rubber ≥ 14 mils, Neoprene Rubber ≥ 14 mils, Natural Rubber ≥ 14 mils, Polyethylene, Polyvinyl Chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils.
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment mixing or loading.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### Engineering Controls:

Mixers and loaders supporting aerial applications are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4)). When using the closed system, the mixers and loaders PPE requirements may be reduced or modified as specified in the WPS.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### Environmental Hazards:

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. Do not contaminate water when disposing of equipment wash waters or rinsate.

### GROUND WATER ADVISORY

This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

### SURFACE WATER ADVISORY

Metolachlor can contaminate surface water through ground spray drift. Under some conditions, metolachlor may also have a high potential for runoff into surface water (primarily via dissolution in runoff water) for several months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

The pesticide label also includes other important information, including directions for use.

### Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)
Naphthalene	91-20-3	< 1	100

SARA 311/312 - Hazard Categories: See SECTION 2 - HAZARDS IDENTIFICATION

### SARA 313 - Toxic Chemicals (40 CFR 372):

Chemical Name	CAS No.	Typical %wt.
Naphthalene	91-20-3	< 1

### SARA 302 - Extremely Hazardous Substances(40 CFR 355):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)	TPQ (Pounds)
None	----	-----	-----	-----

### Proposition 65 (California):

Chemical Name	CAS No.	Typical %wt.	Hazards
Naphthalene	91-20-3	< 1	Cancer



# Stalwart® C Herbicide

## SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16

**Date of preparation:** December 11, 2021

**Hazard Statement(s) and Risk Phrases Listed in: SECTION 2:/ SECTION 3:**

**Hazard Statement(s)**

- H227: Combustible liquid.
- H302: Harmful if swallowed.
- H303: May be harmful if swallowed.
- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H319: Causes serious eye irritation.
- H332: Harmful if inhaled.
- H351: Suspected of causing cancer.
- H400: Very toxic to aquatic life.
- H410: Very toxic to aquatic life with long lasting effects.
- H412: Harmful to aquatic life with long lasting effects.

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