

SAFETY DATA SHEET

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

Product identifier: Statement™ Herbicide
EPA Reg. No. 67760-123

Product use: Herbicide.

Supplier's name and address:

Cheminova Inc.

P.O. Box 110566

One Park Drive, Suite 150

Research Triangle Park, NC 27709

USA

Phone #: (919) 474-6600 (8 AM to 5:00 PM EST, Monday to Friday)

Emergency Telephone #: 1-866-303-6950 (Medical Emergencies)
1-800-424-9300 (24 Hr. Chemtrec Number)

Manufacturer's name and address:

Refer to supplier.

SDS Prepared by: Cheminova Inc.

SDS Preparation date: November 22, 2013

SECTION 2 — HAZARDS IDENTIFICATION

GHS Signal Word:

Warning

Classification:

Health	Environmental	Physical
Eye irritation – Category 2A Sensitization – Skin – Category 1 Specific Target Organ Toxicity – Category 2	Aquatic Toxicity – Acute 2	Not applicable

GHS Pictogram:



Hazard Statements:

Causes serious eye irritation.

May cause allergic skin condition.

May cause damage to organs (liver) through prolonged or repeated exposure.

Toxic to aquatic life.

Precautionary Statements:

Prevention:

Wash skin thoroughly after handling.

Wear eye protection/face protection.

Avoid breathing mists, vapors or spray.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves (chemical resistant gloves such as barrier laminate or Vitron®).

Do not breathe mist, vapors or spray.

Avoid release to the environment.

Response:

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/attention.

If on skin: Wash with plenty of water.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

Get medical advice/attention if you feel unwell.

Storage:

None

Disposal:

Dispose of contents/container according to label directions.

Very toxic to aquatic life with long lasting effects.

SECTION 3 — COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>CAS #</u>	<u>% (weight)</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>
Metolachlor (2-chloro-6'-ethyl-N-(2-methoxy-1-methylethyl)acet-o-toluidide)	51218-45-2	46.3	NE	NE
Fomesafen, sodium salt of (5-[2-chloro-4-(trifluoromethyl)phenoxy]-N-(methylsulfonyl)-2-nitrobenzamide)	108731-70-0	9.7	NE	NE
Inert ingredients:		44.0		

NE= None established

This material is classified as hazardous under OSHA regulations (29CFR 1910.1200).

SECTION 4 — FIRST AID MEASURES

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 poison control center or doctor for treatment advice.
IF SWALLOWED:	Call a poison control center or doctor for treatment advice. Have a 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 by mouth to an unconscious person.
IF INHALED:	Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call poison control center or doctor for further treatment advice.
IF ON SKIN OR CLOTHING:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or when going for treatment. You may also contact 1-866-303-6950 (24-hours) for emergency medical treatment information.

Note to Physician: None

Most important symptoms and effects, both acute and delayed: Primarily irritation.

Indication of any immediate medical attention and special treatment needed: Get medical attention if swallowed or eye irritation persists.

SECTION 5 — FIRE FIGHTING MEASURES

Flash point: >216° F (102° C)

Flammable limits (% by volume): Not applicable

Explosive properties: Not explosive

Suitable extinguishing media: Dry chemical, carbon dioxide or foam.

Special fire-fighting procedures/equipment: Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Fight fire from protected location or maximum possible distance. Dike area to prevent water runoff. Fire fighters should wear self-contained breathing apparatus and protective clothing.

Special hazards arising from the substance or mixture: During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal precautions: Observe all safety precautions when cleaning up spills. Use personal protection equipment. Depending on the magnitude of the spill, this may mean wearing respirator, face mask or safety glasses, chemical resistant clothing, protective gloves and rubber boots when cleaning up spills. See Section 8, Personal Protection. Stop the source of the spill immediately if safe to do so. Remove sources of ignition. It is recommended to have a predetermined plan for the handling of spills. Empty, closed containers for the collection of spills should be available. Reduce and avoid formation of airborne dust as much as possible.

Environmental precautions: Contain the spill to prevent any further contamination of surface, soil or water. Wash waters must be prevented from entering surface water drains. Uncontrolled discharge into water courses must be alerted to the appropriate regulatory body.

Spill response/Cleanup: If appropriate, surface water drains should be covered. Minor spills on the floor or other impervious surface should be swept up or preferably vacuumed up using equipment with high efficiency final filter. Transfer to suitable containers. Clean area with strong industrial detergent and much water. Absorb wash liquid onto inert absorbent clay and collect in suitable containers. The used containers should be properly closed and labelled.

Large spills which soak into the ground should be dug up and placed in suitable containers.

Spills in water should be contained as much as possible by isolation of the contaminated water. The contaminated water must be collected and removed for treatment or disposal. Refer to Section 13 for disposal.

SECTION 7 — HANDLING AND STORAGE

Safe handling procedures: Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling. Before removing gloves, wash them with water and soap. After work, take off all work clothes and shoes. Take a shower, using water and soap. Wear only clean clothes when leaving the job. Wash protective clothing and protective equipment with water and soap after use. Do not discharge to the environment. Collect all waste material and remains from cleaning equipment, etc., and dispose of as hazardous waste.

Storage recommendations: This product is stable under normal conditions of warehouse storage. Store the product in closed, labelled containers. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor, without access of unauthorized persons or children. The room should only be used for storage of chemicals. Food, drink, feed and seed should not be present. A hand wash station should be available.

This product will freeze at a temperature of approximately 5° F (-15° C), but upon warming will thaw out to a fully homogeneous product.

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation and engineering controls: If handled indoors, provide mechanical exhaust ventilation to minimize concentrations.

Protective gloves: Wear chemical-resistant gloves: barrier laminate or viton.

Eye protection: Wear protective eyewear, such as safety glasses or chemical goggles.

Respiratory protection: The product is not likely to present an airborne exposure concern during normal handling, but in the event of a discharge of the material which produces a heavy vapour or dust, workers should put on officially approved face mask or respiratory protection equipment.

Other protective equipment: Wear long-sleeved shirt and long pants, shoes and socks. Wear appropriate chemical resistant clothing to prevent skin contact depending on the extent of exposure. During most normal work situations where exposure to the material cannot be avoided for a limited time span, waterproof pants and apron of chemical resistant material or coveralls or PPE will be sufficient.

Permissible exposure levels: See Section 3.

General hygiene considerations: Follow manufacturer's instructions for cleaning and maintaining PPE. If not such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Appearance: Dark brown, viscous, clear liquid

Odor threshold: ND

pH: 8.32

Melting point: **Metolachlor:** -62.1° C

Fomesafen: 219° C

Freezing point: ND

Initial boiling point and boiling range: ND

Flash point: >216° F (102° C)

Evaporation rate: NA

Flammability: 212° F (>100° C)

Upper/lower flammability or explosive limits: NA

Vapor pressure: **Metolachlor:** 1.7 mPa @ 25° C

Fomesafen: 4.00×10^{-03} mPa @ 25° C

Vapor density: ND

Relative density: 1.127 g/ml @ 20° C

Solubility(ies): Solubility of **Metolachlor** at 20° C in:

water	530	mg/l
-------	-----	------

benzene miscible

acetone miscible

hexane miscible

hexane	miscible
xylene	miscible

Solubility of **Fomesafen** at 20° C in:

water	50	mg/l
-------	----	------

acetone 300,000 mg/l

dichloromethane	10,000	mg/l
-----------------	--------	------

methanol	25,000	mg/l
----------	--------	------

xylylene	1,900	mg/l
----------	-------	------

Partition coefficient (n-octanol/water): Metolachlor: $\text{Log } P = -1.2$ @ pH 7 and 20° C

Fomesafen: $\log P = 3.4$ @ pH 7 and 2° C

Auto-ignition temperature: NA

Decomposition temperature: ND

Viscosity: 407.4 @ 20° C

116.7 @ 40° C

ND: Not determined

NA: Not applicable

Stability and reactivity: This product is stable under the recommended storage and handling conditions described in Section 7.

Hazardous polymerization: Not known to occur.

Conditions to avoid: None known.

Materials to avoid (incompatibles): None known.

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

Routes of exposure: Eyes, ingestion, skin, inhalation.

Acute toxicity: The acute toxicity is estimated as:

Toxicological data (product):

LC₅₀, inhalation (mg/L/4 hrs) = >5.13

LD₅₀, oral, (mg/kg) = >1750

LD₅₀, dermal, (mg/kg) = >5000

Slightly irritating to skin

Moderately irritating to eyes
Skin sensitizer

Carcinogenicity: No known carcinogenic effects.

Specific Target Organ Toxicity (STOT) – repeated exposure:

Metolachlor: Target organ: liver.

Fomesafen: Target organ: liver.

Teratogenicity, mutagenicity, other reproductive effects: No known teratogenic, mutagenic or reproductive effects.

SECTION 12 — ECOLOGICAL INFORMATION

Environmental hazards: For terrestrial use only. 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 waters or rinsate. Do not apply when weather conditions favour drift from target area.

Ecotoxicological information: The ecotoxicity of the active ingredients is measured as:

			Metolachlor	Fomesafen
- Fish	Rainbow trout (<i>Oncorhynchus mykiss</i>) ...	96-h LC ₅₀	3.9 mg/l	170 mg/l
- Invertebrates	Daphnids (<i>Daphnia magna</i>)	48-h EC ₅₀	23.5 mg/l	330 mg/l
		21-day NOEC	0.707 mg/l	100 mg/l
- Algae	Green algae (<i>Selenastrum capricornutum</i>)	72-h IC ₅₀	57.1 mg/l	0.17 mg/l
- Birds	Mallard duck (<i>Anas platyrhynchos</i>)	LD ₅₀	2000 mg/kg	5000 mg/kg
- Earthworms	<i>Eisenia foetida foetida</i>	LC ₅₀	> 1000 mg/kg soil	1000 mg/kg soil
- Insects	Bees (<i>Apis mellifera</i>)	LD ₅₀ , oral	110 µg/bee	50 µg/bee

Environmental fate:

Metolachlor: Persisten in soil. Stable in water. Highly mobile in soil. Sinks in water (after 24 lbs.).

Fomesafen: Low bioaccumulation potential. Not persistent in soil. Stable in water. Sinks in water (after 24 lbs.).

SECTION 13 — DISPOSAL CONSIDERATIONS

Handling for disposal: To avoid wastes, use all material by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program.

Methods of disposal: Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems. Refer to product label for specific container disposal instructions.

SECTION 14 — TRANSPORTATION INFORMATION

US DOT 49 CFR information:

Not regulated

INTERNATIONAL:

IMDG/IMO (vessel): UN3082, Environmentally hazardous substance, liquid, n.o.s. (metolachlor, fomesafen), 9, PGIII, Marine Pollutant

IATA/ICAO (air): UN3082, Environmentally hazardous substance, liquid, n.o.s. (metolachlor, fomesafen), 9, PGIII, Marine Pollutant

SECTION 15 — REGULATORY INFORMATION

FIFRA: 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 on non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

WARNING

Causes substantial but temporary eye injury.

Do not get in eyes or on clothing.

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

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove and wash contaminated clothing before reuse.

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Harmful if swallowed.

This product is toxic to aquatic organisms.

EPA/CERCLA Reportable Quantity (RQ): Not applicable

SARA TITLE III:

Sec. 302, Extremely Hazardous Substance Notification: This material is not known to contain any Extremely Hazardous Substances.

Sec. 311/312, Hazard Categories: Immediate (acute) health hazard
Chronic (delayed) health hazard

Sec. 313, Toxic Chemicals Notification: Not applicable

California Proposition 65: Not applicable

SECTION 16 — OTHER INFORMATION

HMIS Rating: 2 Health; 0 Flammability; 0 Reactivity

NFPA Rating: 2 Health; 0 Flammability; 0 Reactivity

0-minimal 1- slight 2-moderate 3-severe 4-extreme

Prepared by: Cheminova Inc.

Telephone #: (919) 474-6600 (8 AM to 5:00 PM EST, Monday to Friday)

SDS preparation date: November 22, 2013