

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Chemical Name	Mixture
Trade Names	Stalwart [®] MTZ
CAS No.	Mixture
EPA Identification Number	EPA Reg. No. 60063-52

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.); Acute Tox. 4; STOT SE 3; Carc. 2
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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)



Signal Word(s)

WARNING

Hazard Statement(s)

Combustible liquid
Harmful if swallowed.
May cause drowsiness or dizziness.
Suspected of causing cancer.

Precautionary Statement(s)

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Wear protective gloves/protective clothing/eye protection/face protection.
Wash hands and exposed skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Avoid breathing mist/vapours/spray.

Use only outdoors or in a well-ventilated area.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. If breathing is laboured, administer oxygen. Treat symptomatically. If symptoms persist, obtain medical attention.

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. Do not give anything by mouth to an unconscious person. Treat symptomatically.

IF exposed or concerned: Get medical advice/attention.

In case of fire: Extinguish with carbon dioxide, dry chemical, foam or water spray.

Store locked up. Store in a well-ventilated place. Keep cool. Keep container tightly closed.

Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.

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	~ 58	51218-45-2	Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410
Metribuzin	~ 14	21087-64-9	Acute Tox. 4; H302 Aquatic Acute 1; H400 Aquatic Chronic 1; H410
Heavy aromatic naphtha *	15.3	64742-94-5	Flam. Liq. 4; H227 Carc. 2; H351 STOT-SE 3; H336 Asp. Tox. 1; H304 Aquatic Acute 2; H401 Aquatic Chronic 2; H411

Additional Information – Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below:

* Contains: Naphthalene (CAS No. 91-20-3), ~1.5% and 1,2,4-Trimethylbenzene (CAS No. 95-63-6), < 1%

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. Treat symptomatically. 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.
Most important symptoms and effects, both acute and delayed	Contains: Metolachlor. May produce an allergic reaction in persons already sensitised.
Indication of any immediate medical attention and special treatment needed	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.

Special hazards arising from the substance or mixture

Combustion or thermal decomposition will evolve toxic and irritant vapours. Forms oxides of carbon and nitrogen, also chlorine and chlorinated compounds and sulfur and sulfur compounds.
Decontaminate equipment or materials used in pesticide fires.

Advice for fire-fighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

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.

Environmental precautions

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

Methods and material for containment and cleaning up

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

Reference to other sections

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

Additional Information

None

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands and exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid breathing mist/vapours/spray. Use only outdoors or in a well-ventilated area. Observe directions on label and instructions for use. See Also Section 15.

Conditions for safe storage, including any incompatibilities

- Storage temperature

Keep container tightly closed, in a cool, well ventilated place. Keep away from heat, sources of ignition and direct sunlight.

-Incompatible materials

Strong oxidising agents.

Specific end use(s)

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)	
Metribuzin	21087-64-9	-----	5 mg/m ³	-----	-----	-----
Aromatic hydrocarbons, C9-C15	64742-94-5	-----	100 mg/m ³	-----	-----	-----
Naphthalene	91-20-3	10 ppm	10 ppm	-----	-----	-----
1,2,4-Trimethylbenzene	95-63-6	-----	25 ppm	-----	-----	-----

Exposure controls

Appropriate engineering controls

Do **NOT** 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.

Personal protection equipment

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.	Amber
Odour	Pungent
Odour Threshold (ppm)	Not available.
pH (Value)	4.53 (1% soln.)
Melting Point (°C) / Freezing Point (°C)	Not available.
Boiling point/boiling range (°C):	Not available.
Flash Point (°C)	81.7
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)	1.08
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)	26 @ 40 °C
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
Other information	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 and sulfur and sulfur compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes: Inhalation, Skin Contact, Eye Contact

Information on toxicological effects

Substances	Not applicable
Mixtures	
Acute toxicity	Oral: LD50 = 985 mg/kg-bw (rat) Dermal: LD50 > 5050 mg/kg-bw (rat) Inhalation: LC50 > 2.3 mg/L (rat)
Skin corrosion/irritation	Causes mild skin irritation.
Serious eye damage/irritation	May 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:	
<u>Metolachlor (CAS No. 51218-45-2):</u>	
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.

Metribuzin (CAS # 21087-64-9):

Acute toxicity (calculated / estimated)

Oral: LD50 >2000 mg/kg-bw
Dermal: LD50 >2000 mg/kg-bw
Inhalation: LC50 >0.64 mg/l, 4-hr. rat

Irritation/Corrosivity

Unlikely to cause skin irritation. Unlikely to cause eye irritation.

Sensitization

It is not a skin sensitizer.

Repeated dose toxicity

Not to be expected. NOEL = 200 mg/kg/day

Carcinogenicity

It is unlikely to present a carcinogenic hazard to man.

Mutagenicity

Not to be expected

Reproductive toxicity

Not to be expected

Solvent Naptha (Petroleum) Heavy Aromatic (CAS No. 64742-94-5)

Acute toxicity (calculated / estimated)

Oral: LD50 >5 g/kg-bw
Dermal: LD50 >2 g/kg-bw
Inhalation: LC50 >20 mg/l (Vapor), 4-hr. rat - May cause drowsiness or dizziness.

Irritation/Corrosivity

Causes serious eye irritation. Unlikely to cause skin irritation.

Sensitization

It is not a skin sensitizer.

Repeated dose toxicity

No data

Carcinogenicity

It is unlikely to present a carcinogenic hazard to man.

NTP	IARC	ACGIH	OSHA	NIOSH
No. *	No. *	No.	No.	No.

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

Mutagenicity

Not to be expected

Reproductive toxicity

Not to be expected

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)

Metribuzin (CAS # 21087-64-9):

Short term

EC50: 42 - 113 mg/L (Fish)
EC50 (48 hour): 4.2 mg/L (Daphnia magna)
EC50 (72-hr): 0.0087 mg/L (*Skeletonema costatum*)

Long Term

LOEC = 3 ppm (*Oncorhynchus mykiss*).
NOEC = 1.29 (Daphnia magna)

Persistence and degradability

Part of the components are poorly biodegradable.

Bioaccumulative potential

Not determined.

Mobility in soil

Not determined.

Results of PBT and vPvB assessment
Other adverse effects

Not classified as PBT.
None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

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.

Additional Information

None known.

SECTION 14: TRANSPORT INFORMATION

	Land transport (U.S. DOT) *	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN number	Not classified as dangerous for transport. *	UN 3082	UN 3082
Proper Shipping Name		Environmentally hazardous substance, liquid, n.o.s. (Metolachlor)	
Transport hazard class(es)		9	9
Packing group		III	III
Hazard label(s)		Marine Pollutant	Marine Pollutant
Environmental hazards		Yes	Yes
Special precautions for user		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:

WARNING: Causes substantial but temporary eye injury. Harmful if swallowed. Do not get in eyes or on clothing. Wear protective eye wear *(goggles, face shield, or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

This product may cause skin sensitization reactions in some people.

Personal Protective Equipment (PPE):

Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves (such as Barrier Laminate, Butyl Rubber, Nitrile Rubber, Viton or other Selection Category F)
- 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.



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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.

When applicators use enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)], 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 high water mark. Do not contaminate water when disposing of equipment wash water and rinsate.

Ground Water Advisory

Metolachlor has the potential to leach through soil and can contaminate 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.

Metribuzin is a chemical which can travel (seep or leach) through soil and can enter groundwater which may be used as drinking water. Metribuzin has been found in groundwater as a result of agricultural use. Users are advised not to apply metribuzin where the water table (groundwater) is close to the surface and where the soils are very permeable, i.e., well drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

Surface Water Advisory

Metolachlor has the potential to 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.

Mixing/Loading Instructions

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates. Check-valves or anti-siphoning devices must be used on all mixing and/or irrigation equipment. This product must not be mixed or loaded, or used within 50 ft. of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 ft. of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading sites.

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
Metribuzin	21087-64-9	~ 14

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

SECTION 16: OTHER INFORMATION

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

Date of preparation: December 13, 2021

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

Hazard Statement(s)

- H227: Combustible liquid.
- H302: Harmful if swallowed.
- H304: May be fatal if swallowed and enters airways.
- H317: May cause an allergic skin reaction.
- H336: May cause drowsiness or dizziness.-
- H351: Suspected of causing cancer.
- H400: Very toxic to aquatic life.
- H401: 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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