

Stalwart MTZ

Safety Data Sheet

Revision date: 03-31-2017

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : Stalwart MTZ
Other means of identification : EPA Reg. No. 60063-52

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

Use of the substance/preparation : Herbicide

1.3. Details of the supplier of the safety data sheet

Sipcam Agro USA, Inc.
2525 Meridian Parkway, Suite 350
Durham, NC 27713
T 919-226-1195

1.4. Emergency telephone number

Emergency number : (800) 424-9300 CHEMTREC (transportation and spills)
(800) 900-4044 Poison Control Center (human health)
(800) 345-4735 ASPCA (animal health)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 4 H227
Eye Irrit. 2B H320
STOT SE 3 H335
Asp. Tox. 1 H304
Aquatic Acute 1 H400
Aquatic Chronic 2 H411
Hazard pictograms (GHS-US) :

2.2. Label elements

GHS-US labelling



Signal word (GHS-US) : Danger
Hazard statements (GHS-US) : H227 - Combustible liquid
H304 - May be fatal if swallowed and enters airways
H320 - Causes eye irritation
H335 - May cause respiratory irritation
H400 - Very toxic to aquatic life
H 411 - Very toxic to aquatic life with long lasting effects
Precautionary statements (GHS-US) : P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
 P264 - Wash thoroughly after handling
 P271 - Use only outdoors or in a well-ventilated area
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P271 - Avoid release to the environment
 P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor
 P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
 P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P312 - Call a POISON CENTER/doctor if you feel unwell
 P331 - If swallowed, do NOT induce vomiting
 P337+P313 - If eye irritation persists: Get medical advice/attention
 P370+P378 - In case of fire: Use carbon dioxide, foam, dry chemical or water for extinction
 P403+P233 - Store in a well-ventilated place. Keep container tightly closed
 P403+P235 - Store in a well-ventilated place. Keep cool
 P405 - Store locked up
 P391 - Collect spillage
 P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Metolachlor	(CAS No.) 51218-45-2	58.2	Aquatic Acute 1, H400 Aquatic Chronic 2, H411
Metribuzin	(CAS No.) 21087-64-9	13.8	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after eye contact : 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 a poison control center or doctor for treatment advice.

First-aid measures after ingestion : Call a poison control center or doctor immediately for treatment advice. Have affected person sip a glass of water if able to swallow. Do not induce vomiting unless told by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

First-aid measures after skin contact : Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Call a physician or poison control center immediately.

First-aid measures after inhalation : Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

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

No additional information available

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use carbon dioxide, foam, dry chemical or water.

Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustible liquid.

Explosion hazard : None known.

Reactivity : None.

5.3. Advice for firefighters

Protection during firefighting : Firefighters should wear full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid breathing vapors. Avoid skin and eye contact and wear appropriate personal protective equipment.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : If possible, stop flow of product.

Methods for cleaning up : Contain and/or absorb spill with inert material, then place in suitable container. Dispose of waste in accordance with local, state and federal regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Store in dry, cool, well-ventilated area.

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7.3. Specific end use(s)

Herbicide

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Metribuzin (21087-64-9)		
USA ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	5 mg/m ³

8.2. Exposure controls

Appropriate engineering controls	: Local exhaust and general ventilation must be adequate to meet exposure standards.
Hand protection	: Wear impervious gloves to minimize skin contact.
Eye protection	: Chemical goggles or face shield.
Skin and body protection	: Wear suitable working clothes.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Viscous Liquid
Colour	: Amber
Odour	: Pungent
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 81.7 °C
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not flammable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 2 g/mL@ 20°C
Solubility	: Not applicable
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic (Centistokes)	: 79.1 cS (20°C), 26.0 cS (40°C)
Viscosity, dynamic	: No data available
Explosive properties	: Minimal
Oxidizing properties	: Does not react with water, monoammonium phosphate, iron powder or kerosene. Does react with potassium permanganate.

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Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None.

10.2. Chemical stability

The product is stable at normal handling- and storage conditions.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

None.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

May decompose under fire conditions emitting gases and vapors which may be toxic and irritating to the respiratory tract.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Stalwart MTZ	
LD50 oral rat	985 mg/kg
LD50 dermal rabbit	> 5050 mg/kg
LC50 inhalation rat (mg/l)	> 2.30 mg/l (Exposure time: 4 h)

Skin corrosion/irritation : Slightly irritating.

Serious eye damage/irritation : Moderately irritating.

Respiratory or skin sensitisation : Non-sensitizing.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : May cause respiratory irritation.

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general

Metolachlor (51218-45-2)	
LC50 fish 1	8.6 - 12 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	25.1 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 other aquatic organisms 1	0.014 mg/l (Exposure time: 120 h - Species: Pseudokirchneriella subcapitata)
LC50 fish 2	3.3 - 4.6 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 Daphnia 2	4.25 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 other aquatic organisms 2	0.0448 - 0.0568 mg/l (Exposure time: 96 h - Species: Pseudokirchneriella subcapitata [static])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Metolachlor (51218-45-2)	
BCF fish 1	69
Log Pow	2.9 (at 25 °C)

12.4. Mobility in soil

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.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA*

14.1. UN number

UN3082

14.2. UN proper shipping name

DOT Proper Shipping Name : Environmentally hazardous substances, liquid, n.o.s. (Metolachlor)

Department of Transportation (DOT) : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Hazard Classes

Hazard labels (DOT) : 9 - Miscellaneous dangerous compounds



DOT Symbols : G - Identifies PSN requiring a technical name

Packing group (DOT) : III - Minor Danger

DOT Special Provisions (49 CFR 172.102) : 8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description "Other regulated substances, liquid or solid, n.o.s.", as appropriate. In addition, for solid materials, special provision B54 applies.

146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination.

335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as "Environmentally hazardous substances, solid, n.o.s," UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leakproof when used as bulk packaging.
IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2).
Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).

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DOT Special Provisions (49 CFR 172.102) (Continued)	:	T4 - 2.65 / 178.274(d)(2) / Normal / 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions	:	Refer to 49 CFR 173.155
DOT Packaging Non Bulk	:	Refer to 49 CFR 173.203
DOT Packaging Bulk	:	Refer to 49 CFR 173.241

14.3 Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : No limit

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : No limit

*Not regulated for ground shipments in the U.S. in non-bulk packaging (<119 gallons). Ground shipments in bulk containers can also be shipped as non-regulated.

SECTION 15: Regulatory information

15.1. US Federal regulations

All components in the mixture are listed on the United States TSCA (Toxic Substances Control Act) inventory.

Metribuzin (21087-64-9)	
Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	1.0 %
Solvent naphtha, petroleum, heavy aromatic (64742-94-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

This chemical is a pesticide product registered by 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. The pesticide label also includes other important information, including directions for use.

Warning

Harmful if swallowed. Causes substantial but temporary eye injury.

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15.2. US State regulations

Metribuzin (21087-64-9)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Metolachlor (51218-45-2)

U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Full text of R-, H- and EUH-phrases::

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Asp. Tox. 1	Aspiration hazard Category 1
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.