

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008



Revision date 17-Jul-2022

Revision Number 1

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

1.1. Product identifier

Product Name METRO
Product Code(s) TP.1012.H.1___ISR
Chemical name Metribuzin 480 SC
Pure substance/mixture Mixture

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

Recommended use Herbicide; For professional users only
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

Tapazol Chemical Works Ltd.
1st HaSolela st.
West. Ind. Zone
Beit Shemesh, Israel 9905415
Tel: +972-2-992-6040
Fax: +972-2-9926050
For further information, please contact sds@tapazol.co.il

1.4. Emergency telephone number

Emergency Telephone +972 4 777 1900
National Institute for Information on Poisoning
Rambam Health Care Campus, Haifa, Israel

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute toxicity - Oral	Category 4 - (H302)
Acute toxicity - Dermal	Category 4 - (H312)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Specific target organ toxicity (repeated exposure)	Category 2 - (H373)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

2.2. Label elements

Contains Metribuzin (ISO)

**Signal word**

Warning

Hazard statements

H302 - Harmful if swallowed

H312 - Harmful in contact with skin

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H373 - May cause damage to organs through prolonged or repeated exposure

H410 - Very toxic to aquatic life with long lasting effects

EUH208 - Contains 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol May produce an allergic reaction.

EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

Precautionary Statements - EU (§28, 1272/2008)

P102 - Keep out of reach of children

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P314 - Get medical advice/attention if you feel unwell

P405 - Store locked up

P501 - Dispose of contents/ container to an approved waste disposal plant

Additional information

SP1 - Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

2.3. Other hazards**Endocrine Disruptor Information**

Chemical name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances
Metribuzin (ISO)	Group III Chemical	-
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	Group III Chemical	-

SECTION 3: Composition/information on ingredients**3.1 Substances**

Not applicable

3.2 Mixtures

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Metribuzin (ISO)	244-209-7	21087-64-9	42-47	Acute Tox.4 (H302) STOT RE 2 (H373) Aquatic Acute 1 (H400) M=10 Aquatic Chronic (H410) M=100
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	225-208-0	4719-04-4	<0.1	Acute Tox. 4 (H302) Skin Sens. 1 (H317)

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures**4.1. Description of first aid measures**

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Inhalation	If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Immediate medical attention is required. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Do not breathe vapor or mist. Use personal protective equipment as required. See section 8 for more information.

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

Symptoms Coughing and/ or wheezing. Difficulty in breathing.

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

Note to physicians Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Small Fire	Dry chemical, CO ₂ , water spray or regular foam.
Large Fire	Water spray, fog or regular foam Dike fire-control water for later disposal Move containers from fire area if you can do it without risk

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

5.3. Advice for firefighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Keep people away from and upwind of spill/leak.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

General hygiene considerations Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Netherlands	Bulgaria
Metribuzin (ISO) 21087-64-9	-	TWA: 5 mg/m ³ STEL 10 mg/m ³	TWA: 5 mg/m ³	-	-
Chemical name	Denmark	Germany	France	United Kingdom	Spain
Metribuzin (ISO) 21087-64-9	TWA: 5 mg/m ³	-	TWA: 5 mg/m ³	-	TWA: 5 mg/m ³

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

8.2. Exposure controls

Personal protective equipment

Eye/face protection

No special protective equipment required.

Skin and body protection

No special protective equipment required.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations

Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Color	Off- white
Odor	Characteristic.

Property	Values	Remarks • Method
pH	7.1 - 8.1	
pH (as aqueous solution)		
Melting point / freezing point		
Boiling point / boiling range	≈ 100 °C	
Flash point	No data available.	
Evaporation rate	No data available.	
Flammability (solid, gas)	No data available.	
Flammability Limit in Air		
Upper flammability or explosive limits	No data available.	
Lower flammability or explosive limits	No data available.	

Vapor pressure	No data available.
Vapor density	No data available.
Relative density	1.075 - 1.175
Water solubility	Mixable
Solubility(ies)	No data available.
Partition coefficient	No data available.
Autoignition temperature	No data available.
Decomposition temperature	No data available.
Kinematic viscosity	No data available.
Dynamic viscosity	No data available.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Excessive heat.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Oral LD50 >300 mg/kg. Acute Tox. 4 (H302) Classification based on test data.
Dermal LD50 > 2000 mg/kg. Based on available data, the classification criteria are not met.
Inhalation LC50 Not classified. Based on calculation method, the classification criteria are not met.

Skin corrosion/irritation Non-irritating to the skin. Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation Non-irritating to the eyes. Based on available data, the classification criteria are not met.

Respiratory or skin sensitization Not a skin sensitizer. Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Chemical name	European Union
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Metribuzin (ISO)	Not classified
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Carcinogenicity

Chemical name	European Union
Metribuzin (ISO)	Not classified

Reproductive toxicity

Chemical name	European Union
Metribuzin (ISO)	Not classified

STOT - single exposure Not classified. (Based on calculation method classification criteria are not met).

STOT - repeated exposure Cat 2 (H373) - May cause damage to organs through prolonged or repeated exposure. Classification based on calculation method.

Aspiration hazard Not classified. (Based on calculation method classification criteria are not met).

SECTION 12: Ecological information**12.1. Toxicity****Ecotoxicity**

Very toxic to aquatic life:
H400 - Classification based on calculation method.
Very toxic to aquatic life with long lasting effects:
H410 - Classification based on calculation method.
Non-toxic to honeybees.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Metribuzin (ISO)	Acute toxicity: EC50 = 0.0161 mg/L; Chronic toxicity: NOErC = 0.000205 mg/L	Acute toxicity: EC50 = 74.6 mg/L; Chronic toxicity: EC10 = 4.432 mg/L (95d)	-	Acute toxicity: EC50 = 49.0 mg/L; Chronic toxicity: NOEC = 0.32 mg/L

12.2. Persistence and degradability

Persistence and degradability Not rapidly degradable. [Metribuzin].

12.3. Bioaccumulative potential

Bioaccumulation Low potential for bioaccumulation. [Metribuzin].

Bioconcentration factor (BCF) 10 L/kg

Component Information

Chemical name	Partition coefficient
Metribuzin (ISO)	Log Pow = 1.8 (25°C, OECD TG 117)

12.4. Mobility in soil

Mobility in soil Mobile in soil [Metribuzin].

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The components in formulation do not meet the criteria for classification as PBT or vPvB.

Chemical name	PBT and vPvB assessment
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Metribuzin (ISO)	The substance is not PBT / vPvB
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12.6. Other adverse effects**Endocrine Disruptor Information**

Chemical name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances
Metribuzin (ISO)	Group III Chemical	-
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	Group III Chemical	-

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

SECTION 14: Transport information**IMDG**

14.1 UN number	3082
14.2 UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. [Metribuzin]
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Marine pollutant	Yes
Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	None
14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code	

RID

14.1 UN number	3082
14.2 UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. [Metribuzin]
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	None

ADR

14.1 UN number	3082
14.2 UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. [Metribuzin]
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	None

IATA

14.1 UN number	3082
14.2 UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. [Metribuzin]
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Germany**

Water hazard class (WGK) slightly hazardous to water (WGK 1)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)

H2 - ACUTE TOXIC

E1 - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AICS	Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment**SECTION 16: Other information****Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H302 - Harmful if swallowed

H317 - May cause an allergic skin reaction

H373 - May cause damage to organs through prolonged or repeated exposure

H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorization:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Classification procedure

H302 - Classification based on test data
H312 - Classification based on Plant Protection authority opinion in Israel
H315 - Classification based on Plant Protection authority opinion in Israel
H319 - Classification based on Plant Protection authority opinion in Israel
H373 - Classification based on calculation method
H400 - Classification based on calculation method
H410 - Classification based on calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGl(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 17-Jul-2022

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet