



MEDUSA 48 SC

Metribuzin 480 g/L

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 26-09-2012

Revision date: 21-07-2015

Version: 2.1

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

1.1. Product identifier

Trade name : MEDUSA 48 SC
Product code : FH-043

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

1.2.1. Relevant identified uses

Use of the substance/preparation : Agriculture Herbicide

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Rotam Agrochemical Company Limited
Unit 6, 26/F Trend Centre, 29 Cheung Lee Street, Chai Wan, Hong Kong
Hong Kong
T 00852 2896 0662 - F 00852 25586577
msds@rotam.com

1.4. Emergency telephone number

Emergency number : (86) 532 8388 9090

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Aquatic Acute 1 H400

Aquatic Chronic 1 H410

Full text of H-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS09

Signal word (CLP) :

Warning

Hazardous ingredients :

Metribuzin (ISO); 4-amino-6-tert-butyl-3-methylthio-1,2,4-triazin-5(4H)-one; 4-amino-4,5-dihydro-6-(1,1-dimethylethyl)-3-methylthio-1,2,4-triazin-5-one

Hazard statements (CLP) :

H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (CLP) :

P273 - Avoid release to the environment
P391 - Collect spillage
P501 - Dispose of contents/container to local 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	g/L	Classification according to Directive 67/548/EEC
Metribuzin (ISO); 4-amino-6-tert-butyl-3-methylthio-1,2,4-triazin-5(4H)-one; 4-amino-4,5-dihydro-6-(1,1-dimethylethyl)-3-methylthio-1,2,4-triazin-5-one	(CAS No.) 21087-64-9 (EC no) 244-209-7 (EC index no) 606-034-00-8	480	Xn; R22 N; R50/53

MEDUSA 48 SC

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Name	Product identifier	Specific concentration limits	
Metribuzin (ISO); 4-amino-6-tert-butyl-3- methylthio-1,2,4-triazin-5(4H)- one; 4-amino-4,5-dihydro-6-(1,1- dimethylethyl)-3-methylthio- 1,2,4-triazin-5-one	(CAS No.) 21087-64-9 (EC no) 244-209-7 (EC index no) 606-034-00-8	(2.5 =< C) N;R50/53 (0.25 =< C < 2.5) N;R51/53 (0.025 =< C < 0.25) R52/53	
Name	Product identifier	g/L	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Metribuzin (ISO); 4-amino-6-tert-butyl-3- methylthio-1,2,4-triazin-5(4H)- one; 4-amino-4,5-dihydro-6-(1,1- dimethylethyl)-3-methylthio- 1,2,4-triazin-5-one	(CAS No.) 21087-64-9 (EC no) 244-209-7 (EC index no) 606-034-00-8	480	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

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

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Call a physician or poison control center immediately.
- First-aid measures after inhalation : When symptoms occur: go into open air and ventilate suspected area.
- First-aid measures after skin contact : When symptoms occur: rinse immediately with plenty of water.
- First-aid measures after eye contact : Rinse eyes with plenty of water. Get medical attention if needed.
- First-aid measures after ingestion : Rinse mouth and then drink plenty of water. DO NOT induce vomiting. Seek medical advice.

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

Call a physician or poison control center immediately.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).
- Unsuitable extinguishing media : high volume water jet.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide, nitrogen oxides (NO_x).
- Explosion hazard : Product is not explosive.
- Reactivity : The product is stable at normal handling- and storage conditions.

5.3. Advice for firefighters

- Precautionary measures fire : Wear self-contained breathing apparatus and protective suit (see item 8).
- Firefighting instructions : Prevent runoff from entering drains, sewers or waterways.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : Wear personal protective equipment.

6.1.2. For emergency responders

- Protective equipment : Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE).

6.2. Environmental precautions

Do not allow material to contaminate ground water system.

6.3. Methods and material for containment and cleaning up

- For containment : Sweep or shovel spills into appropriate container for disposal.
- Methods for cleaning up : Large spills: scoop solid spill into closing containers. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Wear proper protective equipment.
- Precautions for safe handling : Do NOT get in eyes, on skin or on clothing.

7.2. Conditions for safe storage, including any incompatibilities

No additional information available

MEDUSA 48 SC

Safety Data Sheet

according to Regulation (EC) No. 453/2010

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Off-white.
Colour	: No data available
Odour	: No data available
Odour threshold	: No data available
pH	: 5.4
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	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.115
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Not explosive
Oxidising properties	: Not oxidising
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

All heat sources.

10.5. Incompatible materials

Strong acids, strong bases and oxidation agents.

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

MEDUSA 48 SC

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Metribuzin 480g/L SC	
LD50 oral rat	3045 mg/kg
LD50 dermal rat	≥ 5050 mg/kg
LC50 inhalation rat (mg/l)	≥ 2.1 mg/l/4h

Skin corrosion/irritation	: Slightly irritating
Serious eye damage/irritation	: Non-irritating
Respiratory or skin sensitisation	: Not a sensitizer
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Metribuzin	
LC50 fish 1(96h)	74.6 mg/l (rainbow trout)
EC50 Daphnia 1(48h)	49.6 mg/l
ErC50 (algae)	0.021 mg/l (Scenedesmus subspicatus)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

No additional information available

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

UN-No. : 3082

14.2. UN proper shipping name

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Metribuzin)
Transport document description : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Metribuzin), 9, III, (E)

14.3. Transport hazard class(es)

Class (UN) : 9
Hazard labels (UN) : 9



14.4. Packing group

Packing group (UN) : III

MEDUSA 48 SC

Safety Data Sheet

according to Regulation (EC) No. 453/2010

14.5. Environmental hazards

Dangerous for the environment :



Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.) : 90

Classification code (UN) : M6

Orange plates :



Special provision (ADR) 274, 335, 601

Transport category (ADR) 3

Tunnel restriction code : E

Limited quantities (ADR) 5L

Excepted quantities (ADR) : E1

EAC code : •3Z

14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

No additional information available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Contains no REACH candidate substance

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

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
H302	Harmful if swallowed
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
R22	Harmful if swallowed.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
N	Dangerous for the environment
Xn	Harmful

SDS EU (REACH Annex II)

Disclaimer: The information provided by Rotam Agrochemical Co., Ltd contained herein is given in good faith and correct to the best of our knowledge. However, the information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.