

SAFETY DATA SHEET ACCORDING TO 1907/2006/EC, 453/2010/EU, 2015/830/EU (REACH)

MUSCLE-UP[®] 500 SG

Revised on / Version: 18/09/2019 / 0004
Replaces revision of / Version: 22/07/2019 / 0003

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

- 1.1 Product Identifier**
Product Name : MUSCLE-UP[®] 500 SG
Product description : Pink granules post emergence herbicide
Product Type : Granules
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**
Relevant uses: Herbicide
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet**
Rolfes Agri (Pty) Ltd
288 Mundt Street
Waltloo
Pretoria
South Africa
Tel: +27(0)12 803 0145
Fax: +27(0)12 803 8418
- 1.4 Emergency telephone number**
National advisory body/Poison Centre
Telephone number : SOUTH AFRICA
Griffon Poison Information Centre
(24 Hour Poisoning Emergency Helpline)
+27(0)82 446 8946



SECTION 2: Hazards identification**2.1 Classification of the substance or mixture:****CLP Regulation (EC) no 1272/2008:**

Classification of this product has been carried out in accordance with CLP Regulation (EC) no 1272/2008.

Aquatic Chronic 2: Aquatic Chronic, Category 2, H411

Serious eye damage (Category 1), H318

2.2 Label elements**CLP Regulation (EC) no 1272/2008:****Hazard pictogram(s):****Signal word**

: Danger

Hazard statement(s): H411 - Toxic to aquatic life with long lasting effects
H318 - Serious eye damage**Precautionary statement(s) :**

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P103 - Read label before use.

P273 - Avoid release to the environment.

P280 – Wear protective gloves/ protective clothing/ eye protection/ face protection.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P391 - Collect spillage.

P501 - Dispose of the contents/containers in accordance with the current legislation on waste treatment

2.3 Other hazards

Non-applicable

SECTION 3: Composition/information on ingredients**3.1 Substance/Mixture:**

Mixture

3.2 Component(s):

Chemical Name:	Glyphosate sodium salt
CAS:	1071-83-6
EC:	213-997-4
Classification:	Serious eye damage (Category 1) H318. Aquatic chronic 2 H411

Chemical Name:	Sodium Carbonate
CAS:	497-19-8
EC:	207-838-8
Classification:	Eye Irrit. 2 H319

SECTION 4: First Aid Measures**4.1 Description of first aid measures**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Do NOT give mouth-to-mouth resuscitation if victim ingested or inhaled the substance. Keep person at rest and warm. Treat symptomatically and supportively as and when required. Obtain medical advice if necessary.

By skin contact:

Remove any contaminated clothing. Wash skin with soap or mild detergent and water for at least 15 minutes. Get medical attention if irritation develops or persists. Wash clothing before re-use.

By eye contact:

Immediately flush eyes with lukewarm water or saline solution for at least 15 minutes, lifting lower and upper eyelids occasionally. Check for and remove any contact lenses after 5 minutes. Get medical attention if necessary.

By ingestion / aspiration:

Have victim rinse mouth thoroughly with water. Seek medical advice if necessary.

4.2 Most important symptoms and effects, both acute and delayed

Includes headache, vomiting and diarrhoea

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : None.
Specific treatments : Treat symptomatically.

SECTION 5: Firefighting measures**5.1 Fire Extinguishing Media****Suitable extinguishing media:**

Extinguish small fires with alcohol-resistant foam, dry powder and carbon dioxide.

Unsuitable extinguishing media:

No information available.

5.2 Special hazards arising from the substance or mixture**Hazards from the substance or mixture:**

Cool tank/containers exposed to fire with water spray. Isolate area. Do not allow run-off from firefighting to enter drains or water courses.

5.3 Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. In the event of a fire, wear full protective clothing and self-contained breathing apparatus with full-face piece operated in the pressure demand or other positive pressure mode.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures:**

Avoid accidents, clean up immediately. Avoid contact with eyes and skin. Do not breathe in spray or fumes. Wear appropriate personal protective equipment. Ventilate area of spill or leak, especially in contained areas.

6.2 Environmental precautions:

This product is classified as harmful to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up

Spills:

Contain spilled product by picking up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal. Do not create a powder cloud by using a brush or compressed air..

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

Avoid contact with eyes and skin. Ensure adequate ventilation during handling and use. Do not handle broken containers without protective equipment. Immediately clean up spills that occur during handling.

7.2 Conditions for safe storage, including any incompatibilities:

Keep out of reach of unauthorised persons, children and animals. Store in its original labelled container tightly closed, in an isolated, dry, cool and well-ventilated area. Avoid excessive heat. Avoid cross contamination with other pesticides and fertilisers.

7.3 Specific end use(s)

Use as directed. Use original container.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

No specific occupational exposure limit has been established.

8.2 Exposure controls

Appropriate engineering controls:

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Eye/face protection:

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Possible: safety glasses with side-shields.

Hand protection:

Wear appropriate chemically resistant gloves e.g. nitrile rubber gloves to prevent contact with this mixture.

Body protection:

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection:

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection:

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.

Environmental exposure controls:

In accordance with the provincial legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****Appearance**

Physical state	: Granules
Colour	: Light Pink
Odour	: Aldehyde odour

Product description:

Density at 20 °C	: Non-applicable *
Relative density at 20 °C	: Non-applicable *
Dynamic viscosity at 20 °C	: Non-applicable *
Kinematic viscosity at 20 °C	: Non-applicable *
Kinematic viscosity at 40 °C	: Non-applicable *
pH	: 6.1 – 6.3
Vapour density at 20 °C	: Non-applicable *
Partition coefficient n-octanol/water 20 °C	: Non-applicable *
Solubility in water at 20 °C	: Non-applicable *
Solubility properties	: Non-applicable *
Decomposition temperature	: Non-applicable *
Melting point/freezing point	: Non-applicable *
Explosive properties	: No explosive properties
Oxidising properties	: Non-applicable *

Flammability:

Flash Point	: Does not flash
Autoignition temperature	: Non-applicable *
Lower flammability limit	: Non-applicable *
Upper flammability limit	: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity**10.1 Reactivity:**

No hazardous reactions are expected because the product is stable under normal conditions.

10.2 Chemical stability:

Under normal use conditions of handling and storage, this product is stable for up to 2 years. Avoid storage under extreme temperatures and conditions. Store below 50°C preferably below 30°C, and not for prolonged periods in direct sunlight.

10.3 Possibility of hazardous reactions:

None known.

10.5 Incompatible materials:

No information available

10.6 Hazardous decomposition products:

On decomposition emits toxic fumes of those of oxides of carbon, oxides of phosphorus, and oxides of nitrogen.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****ACUTE TOXICITY:**

Calculated according to GHS.

LD50 Oral (Rat): 2500 mg/kg

LD50 Dermal (Rat): > 2500 mg/kg

Skin Irritation/Corrosion: Causes mild skin irritation.

Eye Damage/Irritation: Causes serious eye irritation.

Skin Sensitization: May cause an allergic skin reaction.

Respiratory Sensitization: Not available.

Reproductive cell mutagenicity: Not available.

Carcinogenicity: Not available.

Reproductive toxicity: Not available.

Specific target organ toxicity – single exposure: Not available.

Specific target organ toxicity – repeated exposure: Not available.

Aspiration hazard: Not available.

Chronic Effects: Not available.

POTENTIAL ADVERSE EFFECTS:

Inhalation: Harmful if inhaled.

Skin contact: May cause mild irritation. No adverse effects expected when used as recommended.

Eye contact: May cause serious eye irritation.

Ingestion: May be harmful when ingested.

SECTION 12: Ecological information

The experimental information related to the eco-toxicological properties of the product itself is not available.

12.1 Toxicity:

Birds (2 species)	Ld ₅₀	Bobwhite quail 14-day 3851 mg/kg
	LD ₅₀	Chicken >2500 mg/kg
	Reproduction	Mallard duck NOEC >1000 mg/kg diet
Fish (2 species)	Ld ₅₀	Carp 19 mg/l
	LD ₅₀	Channel Catfish 39 mg/l
Daphnia	LC ₅₀	Daphnia magna 13 mg/l
Algae	LC ₅₀	<i>Skeletonema costatum</i> 12 mg/l
Bees	Ld ₅₀	> 100 µg/bee

12.2 Persistence and degradability:

In soil (field), DT50 1-130 d, depending on edaphic and climatic conditions. In water, DT50 varies from a few to 91 d. Photodegradation in natural water occurs, DT50 33-77 d; no substantial photodegradation in soil was recorded over 31 d. In lab, whole system with water and sediment, DT50 27-146 d (aerobic), 14-22 d (anaerobic). The major metabolite in soil and water is aminomethylphosphonic acid.

12.3 Bio accumulative potential:

No information available.

12.4 Mobility in soil:

No information available.

12.5 Results of PBT and vPvB assessment:

No information available.

12.6 Other adverse effects:

No information available.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal:

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

Hazardous waste:

No information available.

Packaging









Methods of disposal:

The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Cut the bag into pieces and dispose of via an approved collector or recycler (www.croplife.co.za). Do not bury, burn or donate the bag to any other parties which may use it as container for foodstuffs.

SECTION 14: Transport information

	Land transport (ADR/RID)	Inland waterway transport (AND/ADNR)	Sea Transport (IMDG)	Air transport (ICAO-TI / IATA- DGR)
14.1 UN Number	3077	3077	3077	3077
14.2 UN proper shipping name	Environmentally Hazardous Substances, Solid (N.O.S)	Environmentally Hazardous Substances, Solid (N.O.S)	Environmentally Hazardous Substances, Solid (N.O.S)	Environmentally Hazardous Substances, Solid (N.O.S)
14.3 Transport hazard class(es)	9 	9 	9 	9 
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes 	Yes 	Yes 	Yes 
14.6 Special precautions for user	None	None	None	None
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:	No data available	No data available	No data available	No data available

SECTION 15: Regulatory information

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

Relevant information regarding authorization: Occupational Health and Safety Act 1993 Regulation for Hazardous Chemical Substances.

Relevant information regarding restrictions:

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP]

Other National regulations:

National Road Traffic Act, 1996 (ACT NO. 93 of 1996).

SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail

National Environmental Management: Waste Act 59 of 2008.

15.2 Chemical Safety Assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: Other information

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) N° 1907/2006 (Regulation (EU) N° 453/2010, Regulation (EC) N° 2015/830)

CLP Regulation (EC) n° 1272/2008:

Aquatic Chronic 2: Aquatic Chronic, Category 2, H411

Serious eye damage (Category 1), H318

Advice related to training:

Use as indicated on the label, special training may be required for application.

Relevant P-, H- and EUH-phrases (number and full text)

H411 - Toxic to aquatic life with long lasting effects

H318 - Serious eye damage

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Date of revision : 18/09/2019

Version : 4

Notice to reader

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