



RUP TURBO

Version 1 / ZA
10200040184

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Revision Date: 07.09.2021
Print Date: 07.09.2021

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name RUP TURBO
Product code (UVP) 62290224

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

Use Herbicide
Restrictions on use See product label for restrictions.

1.3 Details of the supplier of the safety data sheet

Supplier Bayer (Pty) Ltd.
27 Wrench Road, P.O. Box 143
1600 Isando
South Africa
Telephone +27 (011) 921 5911
Telefax +27 (011) 921 5766
Responsible Department QHSE - Nigel, South Africa
+27 (011) 365 8675 (during business hours only)

1.4 Emergency telephone no.

Emergency telephone no. +27 (0861) 555 777 (Western Cape Poisons Helpline)
Global Incident Response Hotline (24h) +1 (760) 476 3964 (Company 3E for Bayer AG, Crop Science Division)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Eye irritation: Category 2
H319 Causes serious eye irritation.

2.2 Label elements

Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

- Potassium salt of glyphosate
- Fatty alkyl ether alkyl amine ethoxylate

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H319 Causes serious eye irritation.
 EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statements

P264 Wash hands thoroughly after handling.
 P280 Wear protective gloves/ 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.
 P337 + P313 If eye irritation persists: Get medical advice/ attention.
 P501 Dispose of contents/container in accordance with local regulation.

2.3 Other hazards

No additional hazards known beside those mentioned.

Potassium salt of glyphosate: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.2 Mixtures****Chemical nature**

Soluble concentrate (SL)
 Potassium salt of Glyphosate 551 g/l

Hazardous components

Hazard statements according to Regulation (EC) No. 1272/2008

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification	Conc. [%]
		REGULATION (EC) No 1272/2008	
Potassium salt of glyphosate	70901-12-1	Aquatic Chronic 2, H411	42
Fatty alkyl ether alkyl amine ethoxylate	68478-96-6	Acute Tox. 4, H302 Eye Dam. 1, H318 Aquatic Chronic 2, H411	> 1 – < 10

Further information

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES**4.1 Description of first aid measures****General advice**

Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.

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Inhalation	Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.
Skin contact	Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Get medical attention if irritation develops and persists.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms To date no symptoms are known.

4.3 Indication of any immediate medical attention and special treatment needed

Risks This product is not a cholinesterase inhibitor.

Treatment Treatment with atropine and oximes is not indicated. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable High volume water jet

5.2 Special hazards arising from the substance or mixture In the event of fire the following may be released: Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x), Oxides of phosphorus

5.3 Advice for firefighters

Special protective equipment for firefighters In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.

Further information Contain the spread of the fire-fighting media. Do not allow water to come into direct contact with the product.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Precautions Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

6.2 Environmental precautions Do not allow to get into surface water, drains and ground water.



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6.3 Methods and materials for containment and cleaning up

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

6.4 Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

Hygiene measures Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
Remove Personal Protective Equipment (PPE) immediately after handling this product. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing. Keep working clothes separately. Garments that cannot be cleaned must be destroyed (burnt).

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in original container. Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in a place accessible by authorized persons only. Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode. Protect from freezing. Partial crystallization may occur on prolonged storage below the minimum storage temperature. Freezing will affect the physical condition but will not damage the material. Thaw and mix before using.

Advice on common storage Keep away from food, drink and animal feedingstuffs.

7.3 Specific end use(s) Refer to the label and/or leaflet.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

No known occupational limit values.

8.2 Exposure controls

Respiratory protection Respiratory protection is not required under anticipated circumstances of exposure.
Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Hand protection Please observe the instructions regarding permeability and

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breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed.

Material	Nitrile rubber
Rate of permeability	> 480 min
Glove thickness	> 0,4 mm
Protective index	Class 6
Directive	Protective gloves complying with EN 374.

Eye protection	Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).
Skin and body protection	Wear standard coveralls and Category 3 Type 6 suit. If there is a risk of significant exposure, consider a higher protective type suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently. If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.
General protective measures	If product is handled while not enclosed, and if contact may occur: Complete suit protecting against chemicals

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Form	Liquid, clear to slightly turbid
Colour	light yellow to amber
Odour	amine-like
Odour Threshold	No data available
pH	4,5 - 5,5 (10 g/l) (23 °C) (deionized water)
Melting point/range	No data available
Boiling Point	No data available
Flash point	does not flash
Flammability	Not applicable
Auto-ignition temperature	448 °C
Thermal decomposition	No data available
Minimum ignition energy	No data available
Self-accelarating decomposition temperature (SADT)	No data available
Upper explosion limit	No data available
Lower explosion limit	No data available

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Vapour pressure	No data available
Evaporation rate	No data available
Relative vapour density	No data available
Relative density	1,308 (20 °C) Water at 4 °C
Density	1,31 g/cm ³ (20 °C)
Water solubility	completely miscible
Partition coefficient: n-octanol/water	Potassium salt of glyphosate: log Pow: < -3,2 (25 °C) Isotridecyletherpropylamine ethoxylate + 5 EO: No data available
Viscosity, dynamic	No data available
Viscosity, kinematic	No data available
Oxidizing properties	No data available
Explosivity	No data available
9.2 Other information	Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	Stable under normal conditions.
10.2 Chemical stability	Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions	Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode.
10.4 Conditions to avoid	Extremes of temperature and direct sunlight.
10.5 Incompatible materials	Galvanised steel, Carbon steel, Unlined mild steel Store only in the original container.
10.6 Hazardous decomposition products	Hazardous products of combustion: see section 5.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects**

Acute oral toxicity	LD50 (Rat) > 5.000 mg/kg Test conducted with a similar formulation.
Acute inhalation toxicity	LC50 (Rat) > 5,05 mg/l Exposure time: 4 h
Acute dermal toxicity	LD50 (Rat) > 5.000 mg/kg Test conducted with a similar formulation.
Skin corrosion/irritation	Slight irritant effect - does not require labelling. (Rabbit) Test conducted with a similar formulation.

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Serious eye damage/eye irritation Severe eye irritation. (Rabbit)
Test conducted with a similar formulation.

Respiratory or skin sensitisation Skin: Non-sensitizing. (Guinea pig)
OECD Test Guideline 406, Buehler test
Test conducted with a similar formulation.

Assessment STOT Specific target organ toxicity – single exposure

Potassium salt of glyphosate: Based on available data, the classification criteria are not met.
Isotridecyletherpropylamine ethoxylate + 5 EO: This information is not available.

Assessment STOT Specific target organ toxicity – repeated exposure

Potassium salt of glyphosate did not cause specific target organ toxicity in experimental animal studies.
Isotridecyletherpropylamine ethoxylate + 5 EO: This information is not available.

Assessment mutagenicity

Potassium salt of glyphosate is not considered mutagenic.
Isotridecyletherpropylamine ethoxylate + 5 EO is not considered mutagenic.

Assessment carcinogenicity

Isotridecyletherpropylamine ethoxylate + 5 EO: This information is not available.

Assessment toxicity to reproduction

Potassium salt of glyphosate: Based on available data, the classification criteria are not met.
Isotridecyletherpropylamine ethoxylate + 5 EO: Based on available data, the classification criteria are not met.

Assessment developmental toxicity

Potassium salt of glyphosate: Based on available data, the classification criteria are not met.
Isotridecyletherpropylamine ethoxylate + 5 EO: This information is not available.

Aspiration hazard

Based on available data, the classification criteria are not met.

Further information

No further toxicological information is available.

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)) 28 mg/l
static test; Exposure time: 96 h
Test conducted with a similar formulation.

Chronic toxicity to fish Oncorhynchus mykiss (rainbow trout)
flow-through test
NOEC: \geq 9,63 mg/l
The value mentioned relates to the active ingredient glyphosate.

Toxicity to aquatic invertebrates EC50 (Daphnia magna (Water flea)) 69 mg/l static test; Exposure time:
48 h
Test conducted with a similar formulation.

Chronic toxicity to aquatic invertebrates EC50 (Daphnia magna (Water flea)): 12,5 mg/l
Exposure time: 21 d

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The value mentioned relates to the active ingredient glyphosate.

Toxicity to aquatic plants	ErC50 (Lemna gibba (gibbous duckweed)) 11 mg/l Growth rate; Exposure time: 7 d
	EC10 (Lemna gibba (gibbous duckweed)) 1,2 mg/l static test; Exposure time: 7 d
	ErC50 (Myriophyllum spicatum (Eurasian watermilfoil)) 12,3 mg/l Growth rate; Exposure time: 14 d
	NOEC (Myriophyllum spicatum (Eurasian watermilfoil)) 2,08 mg/l Growth rate; Exposure time: 14 d
Toxicity to other organisms	LD50 (Apis mellifera (bees)) > 265 mcg/bee (contact) Exposure time: 48 h Test conducted with a similar formulation.
	LD50 (Apis mellifera (bees)) > 285 mcg/bee (oral) Exposure time: 48 h Test conducted with a similar formulation.
	LC50 (Eisenia fetida (earthworms)) > 2.700 mg/kg Exposure time: 14 d Test conducted with a similar formulation.

12.2 Persistence and degradability

Biodegradability	Potassium salt of glyphosate: Not readily biodegradable. Isotridecyletherpropylamine ethoxylate + 5 EO: No data available
Koc	Potassium salt of glyphosate: Koc: 884 Isotridecyletherpropylamine ethoxylate + 5 EO: No data available

12.3 Bioaccumulative potential

Bioaccumulation	Potassium salt of glyphosate: Bioconcentration factor (BCF) < 1 Isotridecyletherpropylamine ethoxylate + 5 EO: No data available
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12.4 Mobility in soil

Mobility in soil	Potassium salt of glyphosate: Variable, depends on temperature, soil type, soil moisture, soil pH and organic matter content. Isotridecyletherpropylamine ethoxylate + 5 EO: No data available
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12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment	Potassium salt of glyphosate: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
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12.6 Other adverse effects

Additional ecological information	No further ecological information is available.
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SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods****RESTRICTED**

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Product	In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.
Contaminated packaging	Not completely emptied packagings should be disposed of as hazardous waste.

SECTION 14: TRANSPORT INFORMATION

According to SANS 10231/IMDG/IATA not classified as dangerous goods.

14.1 – 14.5 Not applicable.

14.6 Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

No transport in bulk according to the IBC Code.

SECTION 15: REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Further information**

WHO-classification: U (Unlikely to present acute hazard in normal use)

SECTION 16: OTHER INFORMATION**Text of the hazard statements mentioned in Section 3**

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H411	Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
Conc.	Concentration
EC-No.	European community number
ECx	Effective concentration to x %
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LCx	Lethal concentration to x %
LDx	Lethal dose to x %

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LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.	Not otherwise specified
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

The information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 2015/830 amending Regulation (EU) No 1907/2006 and any subsequent amendments. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

Reason for Revision: New Safety Data Sheet.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.