


Safety Data Sheet

TORUS - Reg. No: L 10709 (Act No 36 of 1947)

Date of issue: 01/08/2019

1) IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER	
Product name:	TORUS
Other means of identification:	Carfentrazone-ethyl 240 g/L
Recommended use:	Crop protection product, herbicide.
Restrictions on use:	For use as an Agricultural remedy only.
UN No:	3082
Distributed by:	MERIDIAN AGRITECH P O BOX 436 MODDERFONTEIN TEL 011 8228509 FAX 0866901386 MOBILE: 0834006056 www.agritech.co.za
Emergency Number:	POISON CENTRE (UNITAS HOSPITAL) 012 664 1100 WESTERN CAPE POISONS TELEPHONE SERVICE (OR POISONS HELPLINE): 0861 555 777 RAPID SPILL RESPONSE 0800 775 3305 GRIFFON POISON CENTRE: 082 446 8946
Chemical Name:	Carfentrazone-ethyl
2) Classification of the substance / mixture:	
Classification of the product is based on the co-formulants listed in section 3.	According to Directive 67/548/EEC or 1999/45/EC Aquatic Acute Cat1 , H400. Aquatic Chronic toxicity Cat 1, H410,H317 According to Directive 67/548/EEC or 1999/45/EC Xn;N; R50 / 53; S60,S61 Full text of R and S-phrases: see section 15.
Label elements	Hazard statements: H400: Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H317 May cause an allergic skin reaction Pictograms:  Signal word: WARNING
Hazards Identification:	
Health effects: eyes:	Causes slight irritation
Health effects: skin:	Causes slight irritation

Health effects: ingestion		Product has low toxicity			
Health effects: inhalation		Product has low inhalation toxicity			
3) COMPOSITION / INFORMATION ON INGREDIENTS:					
Mixture: preparation based on Carfentrazone-ethyl 240 g/L EW					
Chemical name	% composition	CAS No.	EC No.	Classification according to Regulation EC 1272/2008 (CLP)	Classification according to Directive 199/45/EC
Carfentrazone-ethyl	24.0	128639-02-1		Aquatic acute 1, H400 Aquatic Chronic 1, H410 H317 N R50/53	Xn; N, R50 / 53 S60 S61
Full text of R and S-phrases: see section 15.					
4) First Aid Measures:					
Inhalation:		Remove patient to fresh air. Loosen clothing around neck. Lie down and keep warm and at rest. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.			
Skin contact:		Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Do not rub skin. Seek medical assistance if irritation persists. Wash contaminated clothing before re-use.			
Eye contact:		Flush eyes with plenty of water for 15 minutes holding eyelids open. Remove contact lenses, Seek medical assistance immediately.			
Ingestion		Never give anything by mouth to an unconscious person. Do not induce vomiting. For advice, contact the National Poisons Centre. Seek medical assistance immediately. Contains petroleum distillates and/or aromatic solvents			
Most important symptoms and effects, acute and delayed:		None known			
Indication of immediate medical attention and special treatment needed: Advice to physician		Carfentrazone-ethyl has generally low acute toxicity. It is slightly irritating to the eyes and skin. This product contains aromatic hydrocarbons that may produce severe pneumonitis or fatal pulmonary oedema if aspirated during vomiting. Consideration should be given to gastric lavage with an endotracheal tube in place. Treatment is otherwise controlled by removal of exposure followed by symptomatic and supportive care.			
5) Fire-Fighting Measures:					
Extinguishing Media:		Water fog or fine spray, alcohol-resistant foam, carbon dioxide, sand or dry chemical.			
Unsuitable extinguishing media:		Do not use high volume water jet, due to contamination risk.			
Fire Fighting:		Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire. Fight fire from maximum distance and use unmanned			

	No smoking. Keep away from heat and sources of ignition. Keep away from direct sunlight. Protect from freezing.
8) Exposure Control / Personal Protection:	
<p>It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.</p> <p>Components with workplace control parameters</p> <p><u>PERSONAL PROTECTIVE EQUIPMENT:</u></p> <p>Clothing:</p> <p>Respiratory protection:</p> <p>Gloves:</p> <p>Eye protection:</p> <p>Emergency eye wash:</p>	<p>Avoid contact with product. Keep the working place clean and your work clothes separate. Remove soiled or soaked clothing immediately. Clean it separately taking suitable precautions or destroy if necessary. Wash hands between breaks. Take a shower or a bath at the end of work.</p> <p>Consult supplier to confirm that the equipment is suitable.</p> <p>Select chemically-resistant clothing based on the potential for contact and the permeation / penetration characteristics of the clothing material. Wash with soap and water after removing protective clothing. Decontaminate clothing before re-use, or use disposable equipment (suits, aprons, sleeves, boots etc.). As appropriate: Impervious protective suit.</p> <p>Not required under normal conditions of use.</p> <p>Chemically resistant gloves. Gloves should be certified to an appropriate standard. Gloves should have a minimum break-through time that is appropriate to the duration of exposure. The breakthrough time of gloves varies according to the thickness, material and manufacturer. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Suitable material: Nitrile rubber.</p> <p>Not usually required. Follow any site-specific eye protection policies.</p> <p>Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.</p>
9) Physical & Chemical Properties:	
Form:	Liquid
Colour:	White
Odour:	Characteristic
Odour threshold	Not determined
Solubility:	Emulsifies in water.
pH:	4.0-6.0
Melting point / Freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point:	>104°C
Evaporation rate:	Not applicable
Flammability (solid, gas)	Combustible liquid (C1)
Upper/ lower flammability or explosive limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Relative density:	Approximately 1.06
Partition coefficient: n-octanol/water	No data available

Auto-ignition temperature:	No data available
Viscosity:	No data available
10) Stability & Reactivity:	
Reactivity:	No hazardous reactions known. Hazardous polymerisation does not occur. Combustion or thermal decomposition will evolve toxic and irritating vapours.
Stability:	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture. Avoid strong basic, acidic or oxidising materials.
Hazardous decomposition product(s):	None under normal conditions of storage and of use. If involved in a fire, will emit fumes containing toxic compounds.
Conditions to avoid:	Avoid exposure to heat or sources of ignition.
Incompatible materials:	May react with oxidising agents and acid catalysts
11) Toxicological Information: Based on data for a similar formulation	
Acute Oral : > 2000 mg / kg Rats	
Acute Dermal : > 2000 mg / kg Rats	
Acute Inhalation : > 5.00 mg / L	
Aspiration toxicity: This product contains aromatic hydrocarbons that may produce severe pneumonitis or fatal pulmonary oedema if aspirated during vomiting.	
Skin irritation: Non-irritating	
Eye irritation: Non-irritating	
Sensitization : Grade I Weak Sensitizer	
Mutagenicity: NA	
Carcinogenicity: NA	
Reproductive toxicity: NA	
Teratogenicity: NA	
12) Ecological Information: Based on technical material	
Bees : >35 µg / bee (oral), >200 (contact)	
Birds : LD ₅₀ for bobwhite quail >2250 mg/kg. LC ₅₀ for mallard duck >5620 ppm.	
Fish : LC ₅₀ (96 h) 1.6–43 mg/l, depending on species.	
Daphnia : EC ₅₀ (48 h) 9.8 mg/l.	
Algae : EC ₅₀ 5.7–17 µg/l, depending on species.	
Worms : LC ₅₀ >820 mg/kg soil.	
Soil micro-organisms: NA	
Persistence and degradability:	
Environment: Carfentrazone-ethyl is rapidly degraded in soils under aerobic and anaerobic conditions (half life = 1 to 2 days). Carfentrazone-ethyl rapidly hydrolyses at pH 9 but stable at pH 5. Field studies show that Carfentrazone-ethyl has a low potential for movement in the soil. The Log P of 3.36, and measured bioconcentration factor of 206 in fish, indicate a low potential for accumulation. The low vapour pressure (1.19 x 10 ⁻⁷ Torr) indicates that volatility is not a concern.	
Bioaccumulation: Low potential	
Biodegradability: Bioconcentration factor: 206	
Koc: NA	

Mobility in soil: Field studies show that Carfentrazone-ethyl has a low potential for movement in the soil.

Results of PBT and vPvB assessment:

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)

Other adverse effects:

NA

13) Disposal Considerations:

Waste Disposal: Do not contaminate ponds, waterways or ditches with any chemical or used container. Do not dispose of waste into the sewer. Where possible, recycling is preferable to disposal or incineration. If recycling is not practicable, dispose of in accordance with local and national regulations
Do not contaminate water, food or feed by disposal.

Container Disposal: Refer to the product label for instructions.

Empty the remaining contents. Triple rinse the container. Empty containers must be taken to an approved waste handling site for recycling or disposal.

If the container is to be refilled, do not rinse with any material or introduce any pesticide other than this product. **DO NO REUSE THE CONTAINER FOR ANY OTHER PURPOSE.**

Do not transport if this container is damaged or leaking.

14) Transportation Information:

UN NUMBER: 3082

Road Transport ADR/ RID:

Class: 9

Packaging group: III

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Carfentrazone-ethyl and aromatic hydrocarbons)

Environmental hazards: Environmentally hazardous

Special precautions for user: None known.

Maritime Transport IMDG / IMO:

Class: 9 Miscellaneous Dangerous Goods

Packaging group: III

Labelling no: 9

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Carfentrazone-ethyl and aromatic hydrocarbons)

MARINE POLLUTANT

Air (ICAO / IATA):

Class: 9 Miscellaneous Dangerous Goods

Packaging group: III

Labelling no: 9

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Carfentrazone-ethyl and aromatic hydrocarbons)

15) Regulatory Information:

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

To avoid risks to man and the environment, comply with all instructions for use.

Advice on handling of the product can be found in sections 7 and 8 of this safety data sheet.

For the proper and safe use of this product, please refer to the approval conditions indicated in the product label.

Labelling according to EC directives:

Hazardous components which must be listed on the label: Carfentrazone-ethyl

Symbol(s):

Xn: Harmful

N: Dangerous for the Environment

R-phrase(s):

R50 / 53: Very toxic to aquatic organisms, may cause long-term adverse effects in the environment.

S-phrases(s):

S1/2 - Keep locked up and out of reach of children.

S3/79 – Keep container tightly closed in a cool, well-ventilated place.

S13 – Keep away from food, drink and animal feeding stuffs.

S15 – Keep away from heat.

S20/21 – When using, do not eat drink or smoke.

S28 – After contact with skin, wash immediately with plenty of water and soap.

S26 – In case of contact with eyes, rinse immediately with plenty of water.

S35 – This material and its container must be disposed of in a safe way.

S36/37 – Wear suitable protective clothing and gloves.

S45 – In case of an accident or if you feel unwell, seek medical advice (show label where possible).

S57 - Use appropriate containment to avoid environmental contamination.

S60 - This material and its container must be disposed of as hazardous waste.

S61- Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Hazard statements:

H400: Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H317 May cause an allergic skin reaction

16. Other Information

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.

It is the responsibility of persons in receipt of this SDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with this product. If the recipient subsequently produces formulation(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this SDS to their own SDS. The information contained herein is provided in good faith but makes no representation as to its comprehensiveness or accuracy. A properly trained person using this product intends this document only as a guide to the appropriate handling of the material. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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