

Safety Data Sheet (SDS) Tornado

According to UN GHS 8th Ed
Revision Date: 17/08/2022

First print date: 01/06/2018
Version: 1.1

SECTION 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

Product identifier:

Identification as on the label/Trade name: **TORNADO**

Common Name: **Difenacoum 0.1 g/kg Bait**

Relevant identification uses of the substance and uses advised against:

Identified uses: Rodenticide

Uses advised against: Use only as directed.

Details of the supplier of the Safety Data Sheet:

Enviro Bio-Chem (Pty) Ltd, 44 Kerk Street,
Lichtenburg, North West, South Africa, 2740

Details of the Registration Holder:

RT Chemicals CC, 44 Kerk Street,
Lichtenburg, North West, South Africa, 2740

Contact Details:

Telephone: +27 87 231 7261

Fax: 086 541 7948

Website: www.envirobiochem.co.za

Emergency telephone numbers:

24 Hour Emergency Number: Bateleur: +27 83 123 3911

Griffon Poison Information Centre: +27 82 446 8946

Poisons Information Helpline: 0861 555 777

Tygerberg Hospital: +27 21 931 6129

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to Regulation (EC) No 1272/2008 EU-GHS/CLP

Hazard classes/Hazard categories	Hazard statement
STOT RE (Category 2)	H373
Toxic to reproduction (Category 1B)	H360d

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: None known.

The most important adverse human health effects: May damage unborn child. May cause damage to organs through prolonged or repeated exposure.

Label elements



Hazard pictograms:

Signal Word: Danger

Safety Data Sheet (SDS) Tornado

According to UN GHS 8th Ed

Revision Date: 17/08/2022

First print date: 01/06/2018

Version: 1.1

Hazard Statements:

H373	May cause damage to organs through prolonged or repeated exposure
H360d	May damage the unborn child

Precautionary Statements:

P102	Keep out of reach of children
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash hands, forearms, and face thoroughly after handling
P270	Do not eat, drink, or smoke when using this product.
P273	Avoid release into the environment.
P280	Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up
P501	Dispose of contents/container in accordance with local/regional/ national regulations

Other hazards: None known

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Ingredients:

Substance name (IUPAC)	CAS Number.	Concentration % by weight	Classification EC1272/2008
Difenacoum	56073-07-5	0.01%	Acute toxicity (Category 1), H300 Acute toxicity (Category 1), H310 Acute toxicity (Category 1), H330 STOT RE (Category 2), H373 (Blood) Reproduction toxicity (Category 1B) H360D Aquatic Acute (Category 1)H400 Aquatic Chronic (Category 1) H410
Bittrex	3734-33-6	< 1%	Acute toxicity (Category 4), H302 Acute toxicity (Category 4), H332 Eye damage (Category 1), H318

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES

Description of first aid measures:

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

In case of inhalation: Due to the physical nature of this product, exposure by this route is unlikely. IF INHALED: Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if symptoms are severe or persist.

In case of skin contact: May cause irritation to susceptible persons. Immediately take off all contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if symptoms are severe or persist after washing.

In case of eye contact: Flush eyes with clean water for at least 15 – 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Seek medical advice.

Safety Data Sheet (SDS) Tornado

According to UN GHS 8th Ed
Revision Date: 17/08/2022

First print date: 01/06/2018
Version: 1.1

In case of ingestion Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention immediately.

Most important symptoms and effects, both acute and delayed:

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation: Unlikely to present an inhalation hazard. If symptoms develop move the exposed person to fresh air. Immediately obtain medical advice.

Ingestions: Rinse mouth. Do NOT induce vomiting. Call a doctor immediately

Skin contact: May cause skin irritation.

Eye contact: May cause causes eye irritation.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically. Do not induce vomiting.

Advice for Medical Doctors: Difenacoum is an indirect anticoagulant. Vitamin K1 (phytomenadione) is an antidote. In the case of suspected poisoning, determine prothrombin time not less than 18 hours after consumption. If elevated, administer vitamin K1, 40mg/day for adults and 20mg/day for children in divided doses. Continue until prothrombin times normalise. Continue determination of prothrombin time for two weeks after withdrawal of the antidote and resume treatment if elevation occurs in that time. N.B. Vitamin K3 is not effective. If less than 2 hours has passed from the intake, gastric emptying must be performed, and activated carbon dispensed (25 g).

SECTION 5. FIRE FIGHTING MEASURES

Extinguisher media:

Suitable extinguisher media: Foam. Dry powder. Carbon dioxide. Water spray.

Unsuitable extinguishing media: Do not use high volume water jet, due to contamination risk.

Specific hazards arising from the mixture:

Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous decomposition products in case of fire: Refer to Section 10: Stability and Reactivity.

Advice for fire-fighters:

Avoid inhaling hazardous vapours. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent.

Contain fire control agents for later disposal according to Section 13.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment, and emergency procedures:

Personal precautions: Avoid contact with eyes and skin. Wear approved protective clothing as described in Section 8.

For emergency responders: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent. Avoid contact with eyes and skin. Do not breathe in fumes. Refer to section 8 for recommended personal protective equipment. Evacuate unnecessary personnel.

Environmental precautions: Avoid the product coming into contact with any surface or underground water. If this occurs, immediately notify the appropriate authorities. To minimise the risk of secondary poisoning, remove dead rodents when monitoring bait stations. Remove dead rodents and bait stations after completing the treatment and dispose of them according to current legislation. Do not dispose of the product in the ground, in natural water systems, drains or soil.

Dispose in a safe manner in accordance with local/national regulations.

Methods for containment and cleaning up:

Safety Data Sheet (SDS) Tornado

According to UN GHS 8th Ed
Revision Date: 17/08/2022

First print date: 01/06/2018
Version: 1.1

Spills : Provide adequate ventilation and wear protective clothing. Sweep up and place the material into a clean, dry container and cover for subsequent disposal according to Section 13. In situations where product comes in contact with water, contain contaminated water for later disposal. Do not flush spilled material into drains or watercourses.

Reference to other sections:

See Section 1 for emergency contact information

See section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See section 13 for information on disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

The product is unlikely to produce dust. Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Keep container tightly sealed when not in use.

Protective measures: Observe directions on label and instructions for use.

Advice on general occupational hygiene: Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. Wash after use and before eating, smoking, and using the toilet.

Conditions for safe storage, including incompatibilities:

Keep out of the reach of children. Read the label carefully before opening the package. Remove and possibility of contact with skin and eyes. Follow instructions to avoid risk to humans and the environment. Do not eat, drink or smoke during use.

Wear suitable protective gloves and goggles or face shield, gloves and rubber boots. Wash hands and exposed skin to rid of product and contaminated clothing. Take personal protection measures set out in section 8.

Specific end uses:

Use as a rodenticide according to label instructions.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Acceptable Daily Intake (ADI): No data available

Exposure Limits: No data available

Exposure control:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. A Risk Assessment should be conducted before handling is to commence to determine specific exposure control.

Appropriate engineering controls: Provide adequate ventilation.

Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking and using the toilet and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

Eye/face protection: Avoid contact with eyes. Wear safety glasses if necessary.

Hand protection: Use chemical resistant gloves to prevent contact with the product.

Body protection: Appropriate impervious clothing is required to prevent skin contact with the product.

Respiratory protection: Provide adequate ventilation. No respiratory protection is required under normal conditions of use.

Environmental exposure controls: Keep container tightly sealed when not in use. Avoid release to the environment. Prevent product from entry into sewers and water courses

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Safety Data Sheet (SDS) Tornado

According to UN GHS 8th Ed
Revision Date: 17/08/2022

First print date: 01/06/2018
Version: 1.1

Information on basic physical and chemical properties

Appearance	Solid blocks
Colour	Dark Blue
Odour	No data available
Odour threshold	No data available
pH	9
Melting point / freezing point (°C)	No data available
Boiling point (°C)	190
Flash point (°C)	No data available
Evaporation rate	No data available
Flammability	Non flammable
Upper /lower flammability limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density (20°C) g/ml	1.05
Water solubility (g/l) at 20°C	Insoluble in water
Partition coefficient : n-octanol/water	No data available
Auto-ignition temperature (°C)	No data available
Decomposition temperature (°C)	No data available
Viscosity, cps	No data available
Explosive properties	No data available
Oxidising properties	No data available
Explosive limits	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity: None known

Chemical stability: Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions. Avoid excessive heat sources.

Conditions to avoid: Excessive heat sources

Incompatible materials: Avoid strong bases, strong acids and strong oxidizing agents.

Hazardous decomposition products: Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include harmful gases or vapours

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution: No data available

Information on toxicological effects:

Assessment of acute toxicity:

The product has not been tested. The data reported is for the main ingredients in the mixture.

Difenacoum tech CAS No. 56073-07-5	
Acute toxicity:	
Acute Oral LD50 (rat - male)	1.8 mg/kg
Acute Dermal LD50 (rabbit):	4.99 mg/kg
Acute Inhalation LC50 - 4 h (rat)	≥0.036 mg/l
Skin irritation/ corrosion (rabbits)	Not a skin irritant
Eye damage / irritation (rabbits)	Not an eye irritant

Safety Data Sheet (SDS) Tornado

According to UN GHS 8th Ed
Revision Date: 17/08/2022

First print date: 01/06/2018
Version: 1.1

Respiratory or skin sensitization (Guinea pig)	Not a skin sensitiser
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	May damage the unborn child
Specific Target Organ Toxicity STOT single exposure	No data available
Specific Target Organ Toxicity STOT repeated exposure	May cause damage to organs through prolonged or repeated exposure
Aspiration hazard	No data available

Additional Information:

STOT Repeated Exposure: The product causes chronic anticoagulation. It works by interrupting the cycle of vitamin K in the liver microtomes, which specifically inhibits the activation of coagulation factors necessary for clotting.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Bittrex CAS No. 3734-33-6	
Acute toxicity:	
Acute Oral LD50 (rat - male)	648 mg/kg
Acute Dermal LD50 (rat):	2000 mg/kg bw
Acute Inhalation LC50 - 4 h (rat)	0.2 mg/l
Skin irritation/ corrosion (rabbits)	Not a skin irritant
Eye damage / irritation (rabbits)	Adverse effects observed – irreversible damage
Respiratory or skin Sensitisation:	Not a skin sensitiser Respiratory – No data available
Carcinogenicity	No adverse effect observed NOAEL 16 mg/kg bw/day (chronic, rat)
Reproductive toxicity	No adverse effect observed NOAEL 60 mg/kg bw/day (chronic, rat)
Specific Target Organ Toxicity STOT single exposure	No data available
Specific Target Organ Toxicity STOT repeated exposure	No data available
Aspiration hazard	No data available

After absorption: Systemic effects: Drowsiness, Tremors, ataxia (impaired locomotor coordination)

Additional data: Other dangerous properties cannot be excluded. Handle in accordance with good industrial hygiene and safety practice

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

SECTION 12. ECOLOGICAL INFORMATION

Difenacoum tech CAS No. 56073-07-5	
Toxicity	
Birds Acute oral LD ₅₀	>50 mg/kg Chickens
Aquatic Toxicity Fish LC ₅₀ (96 hr) Aquatic Toxicity Daphnia LC ₅₀ (48 hr) Algae EC ₅₀ (72h) Bee Toxicity LC ₅₀ Worms LC ₅₀	0.10mg/l (rainbow trout) 0.52 mg/l No data available No data available No data available
Persistence and degradability	Difenacoum is highly stable and hardly bio-degradable.

Safety Data Sheet (SDS) Tornado

According to UN GHS 8th Ed
Revision Date: 17/08/2022

First print date: 01/06/2018
Version: 1.1

Bioaccumulation potential	High bioaccumulation potential
Mobility in soil	No data available

Bittrex CAS No. 3734-33-6	
Toxicity	
Aquatic Toxicity Fish LC ₅₀ static test (96 hr)	>100 mg/l Danio rerio (zebra fish)
Aquatic Toxicity Daphnia semi static EC ₅₀ (96 hr)	No data available
Toxicity to algae – static test ErC ₅₀ (72 hr)	281.56 mg/l Chlorella vulgaris (Fresh water algae)
Toxicity to bacteria EC ₅₀ (15 min)	511.59 mg/l
Persistence and degradability	No data available
Bioaccumulation potential	No data available
Mobility in Soil	No data available
Result of PBT and vPvB assessment	No data available
Other adverse effects	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Product:

Keep out of drains, sewers, ditches, and waterways. Open dumping or burning of this pesticide is prohibited.

Waste resulting from the use of this product cannot be re-used or reprocessed. Refer to container label for disposal information. Treat as hazardous waste and dispose of in accordance with local/ regional/ national/ international regulations.

Container:

Refer to container label for disposal information. Emptied containers retain product residues. Observe all labelled safeguards until container is cleaned, reconditioned, or destroyed. Dispose of using an approved waste disposal service provider.

Follow all local/ regional/ national/ international regulations.

SECTION 14. TRANSPORT INFORMATION

UN Number	3027
UN proper shipping name	Coumarin Derivative Pesticide; Solid; Toxic (Difenacoum 0.1 g/kg)
Transport hazard class	6.1
Packaging group	III
Marine pollutant	Yes

SECTION 15. REGULATORY INFORMATION

Safety, health, and environmental regulations/legislation for the mixture:

Relevant information regarding authorization: Occupational Health and Safety Act 1993. Regulation for Hazardous Chemical Agents, 2021. UN Recommendations on the Transport of Dangerous Goods Model Regulations Rev. 21 (2019), Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Rev 8, 2019.

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 modes.

National Environmental Management Waste Act 59 of 2008.

Safety Data Sheet (SDS) Tornado

According to UN GHS 8th Ed

Revision Date: 17/08/2022

First print date: 01/06/2018

Version: 1.1

Act 36 of 1947 of the Republic of South Africa. This product is registered under it is a violation of South African law to use this product in any manner inconsistent with its approved labelling. Read and follow all label directions

Chemical Safety Assessment carried out? No

SECTION 16. OTHER INFORMATION

Indication of changes:

Classification according to SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP]

GHS aligned – all sections

Relevant H statements (number and full text):

H300-Fatal if Swallowed

H302-Harmful if swallowed

H332-Harmful if inhaled

H310-Fatal in contact with skin

H318-Causes serious eye damage

H330-Fatal if inhaled

H400-Very toxic to aquatic life

H410-Very toxic to aquatic life with long lasting effects

Reproduction toxicity (Category 1B): May damage unborn child

STOT RE 2 H373-Specific Target Organ Toxicity repeated exposure (Category 2), Blood

Training instructions:

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

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product, nor where instructions or recommendations are not followed.