Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH)

SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier: Deadfast Rat and mouse killer Plus – sachets

1.2. Relevant identified uses :

Biocide product (PT14-Rodenticide) Bait used for control of rodents

1.3 Details of the supplier of the safety data sheet:

Supplier:

Westland Horticulture Ltd
14 Granville Industrial Estate
Granville Road
Dungannon
County Tyrone
BT70 1NJ

Email: customerservice@WestlandHorticulture.com

1.4 EMERGENCY TELEPHONE NUMBER: +44 1480 443789 (UK 24 hrs)

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture according to Regulation (EC) No 1272/2008:

STOT RE Cat 2, Aquatic chronic cat. 3
Hazard statements: H373, H412

Additional information: Full text of H- and EUH-phrases: see SECTION 16.

2.2 Label elements

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

Hazard pictograms



Signal word:
Warning

Hazard statements:
H373 May cause damage to organs through prolonged or repeated exposure

H412 Harmful to Aquatic life with long lasting effects

Precautionary statements:

P102	Keep out of reach of children
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P270	Do not eat drink or smoke when using this product
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P314	Get medical advice/attention if you feel unwell
P501	Dispose of contents and container according to National Regulations

Supplemental Hazard information: None

Additional labelling: None

2.3 Other hazards: none

SECTION 3. Composition/Information on Ingredients

3.1 Substances

3.2 Mixtures

This mixture contains 25mg/kg of Difethialone

Hazardous ingredients

Ingredient	Identifiers	Concentration %W/W	Warning Symbols	Regulation (EC) No 1272/2008 (CLP)
Difethialone	CAS: 104653-34-1	0.0025%		Acute Tox., cat. 1 STOT RE cat.1, Repr. 1B, Aquatic acute cat.1 Aquatic chronic tox. Cat.1

Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

General information: In all cases of suspected exposure, medical assistance should be sought immediately. Show this data sheet. See antidotal therapy below. Note that poisoning symptoms may develop over the course of several days

Inhalation: The preparation is non-dusty bait. Inhalation is not applicable as a route of exposure

Skin contact: Remove all contaminated clothing. Immediately rinse the affected area with plenty of soap and water for at least 15 minutes. Seek medical attention if symptoms develop or if there is reason for concern

Eye contact: Immediately rinse the affected eye with plenty of water or eye wash fluid for at least 10 minutes whilst separating the eyelids. Remove contact lenses if present and safe to do so. Continue rinsing. Avoid contaminated water coming into contact with the other eye or skin. Seek medical attention if symptoms develop, or if there is reason for concern.

Ingestion: If swallowed, DO NOT INDUCE VOMITING. Rinse out mouth with water if casualty is fully conscious. Seek medical attention if symptoms develop or if there is reason for concern. In all cases of doubt or if symptoms persist, seek medical attention.

Self-protection of the first aider: wear gloves

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: nosebleed, gum bleed, spitting blood, multiple or large haematoma, generally sudden appearance of an unusual visceral pain; blood in urine, increase in coagulation time

4.3 Indication of any immediate medical attention and special treatment needed

Primary treatment is antidotal therapy rather than clinical assessment. Antidotal therapy: SPECIFIC vitamin K1 (phytomenadione). Analogues of Vitamin K1 (vitamin K3: menadione for example) are not very active and should not be used. The efficacy of the treatment should be followed by measurement of coagulation time. The treatment should continue until coagulation time returns to normal and REMAINS normal. In case of serious intoxication, it may be necessary to administer, in addition to vitamin K1, blood or frozen fresh plasma or PPSB coagulant blood fraction transfusions

SECTION 5: Fire Fighting Measures

5.1 Extinguishing media:

Use foam, dry chemical carbon dioxide, or water spray when fighting fires involving this material. Foam or dry chemical fire extinguishing system is preferred to prevent excessive water run-off.

5.2 Special hazards arising from the substance or mixture

This mixture is not known to produce hazardous decomposition products under normal storage conditions. Normal products of organic combustion will be released under conditions of pyrolysis or combustion.

5.3 Advice for fire-fighters

Wear breathing apparatus and appropriate clothing

Additional information: None

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Precautions must be observed during storage and handling. See also section 8 of this Safety Data sheet

6.2 Environmental precautions:

In case of major spillage in water, prevent entry into drains and waterways. If polluted water reaches drainage systems or water courses, immediately inform the competent authorities.

6.3 Methods and material for containment and cleaning up

Collect or sweep up the product into containers for recovery and disposal. After removal, clean contaminated area with water and detergent. Avoid allowing contaminated water into drains or waterways.

6.4 Reference to other sections

See section 13 concerning disposal methods

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Read the label carefully before handling and use. For protective equipment, see section 8. Wash hands immediately after using. Do not eat drink or smoke when using the product.

7.2 Conditions for safe storage, including any incompatibilities

Store securely in original packaging. Keep out of reach of children and pets. Do not store near food.

7.3 Specific end uses:

This product is a rodenticide bait for the control of rodents.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control parameters

8.1.1 Occupational exposure limits: none

8.1.2 Biological limit values: none

8.1.3 Exposure limits at intended use: none

8.1.4 DNEL/PNEC-values:N/A

8.1.5 Risk management measures according to used control banding approach: N/A

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

8.2.2 Personal protective equipment:

Eye / Face protection: Not required if used as per instructions

Skin protection: Specific protective clothing or other personal protective equipment is not required if using according to recommendations.

Hand protection: It is recommended that operators wear disposable latex or similar gloves. Care should be taken when removing and disposing of gloves. Users should wash hands immediately after handling in all cases.

Respiratory protection: N/A

Thermal hazards: N/A

8.2.3 Environmental exposure controls: N/A

SECTION 9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance: Blue paste

Physical state: Solid

Colour: paste

Odour: Cereal

Odour threshold: unknown

9.2 Other information:

	Value	Concentration	Method	Temperature	Pressure	Remark
pH	-	-	-	-	-	-
Melting point/freezing point	-	-	-	-	-	-
Initial boiling point/boiling range	-	-	-	-	-	-
Flash point	-	-	-	-	-	-
Evaporation rate	-	-	-	-	-	-
Flammability (solid, gas)	-	-	-	-	-	-
Upper/lower flammability or explosive limits	-	-	-	-	-	-
Upper explosive limits	-	-	-	-	-	-
Lower explosive limits	-	-	-	-	-	-
Vapour pressure	-	-	-	-	-	-
Vapour density	-	-	-	-	-	-
Relative density	-	-	-	-	-	-
Solubility(ies)	Not miscible	-	-	-	-	-
Partition coefficient: n-octanol/water	-	-	-	-	-	-
Auto-ignition temperature	-	-	-	-	-	-
Decomposition temperature	-	-	-	-	-	-
Viscosity	-	-	-	-	-	-
Viscosity, dynamic	-	-	-	-	-	-
Viscosity, cinematic	-	-	-	-	-	-
Explosive properties	Not explosive	-	-	-	-	-
Oxidising properties	Not oxidising	-	-	-	-	-

Physical hazards: None known

SECTION 10: Stability and Reactivity

10.1 Reactivity: The mixture is stable under normal conditions

10.2 Chemical stability: The mixture is stable under normal conditions

10.3 Possibility of hazardous reactions: The mixture is not known to undergo hazardous reactions under normal conditions

10.4 Conditions to avoid: The mixture is not known to undergo hazardous reactions under normal conditions

10.5 Incompatible materials: The mixture is not known to undergo hazardous reactions under normal conditions

10.6 Hazardous decomposition products: The mixture is not known to undergo hazardous reactions under normal conditions. Normal products will be released under conditions of pyrolysis or combustion.

SECTION 11: Toxicological Information

Toxicokinetics, metabolism and distribution

11.1 Information on toxicological effects

11.1.2 Mixture

Acute toxicity

Practical experience / human evidence:

Animal data: LD50 oral (Rat) : >2500 mg/kg
LD50 dermal (Rabbit): >2000 mg/kg
LC50 Inhalation: N/A

Skin corrosion/irritation: N/A

Eye damage/irritation: N/A

Sensitisation to the respiratory tract/skin: N/A

Chronic Toxicity (active substance Difethialone)

LOAEL (Rat-90 days): 4µg/kg bw/day- NOAEL (Rat-90 days): 2µg/kg bw/day
LOAEL (Dog-90 days): 20µg/kg pc/day- NOAEL (Dog-90 days): 10µg/kg bw/day
The active substance is classified as dangerous and may cause serious damage to health by prolonged exposure.

CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
No evidence of carcinogenicity or mutagenicity for the mixture

Reproductive toxicity

Practical experience / human evidence: No observed adverse effects
RAC conclusion: This substance is considered to be potentially toxic for foetal development based on human teratogenicity data available for warfarin

Other information: The active substance is a powerful anticoagulant rodenticide with accumulative toxic effects due to antivitamin K activity.

SECTION 12: Ecological Information

12.1 Toxicity:

Aquatic toxicity
Acute (short-term) fish toxicity: LC50 *Oncorhynchus Mykiss* (96 h) 51 µg/L-NOEC 22 µg/L

Acute (short-term) toxicity to algae and cyanobacteria:

CbE50 Algae (72h): 65 µg/L –NOEC: 32µg/L (*Selenastrum capricornutum*)

Toxicity to other aquatic plants / organisms:
CE50 Daphnis (48h) : 4.4 µg/L-NOEC: 3 µg/L (*Daphnia magna*)

This substance is very toxic to aquatic organisms

Terrestrial toxicity:

Acute toxicity LC50 Earthworm (14 days) (*Eisenia foetida)*: >1000mg/kg of soil

Acute toxicity to birds:
LD50: 0.264mg/kg bw **(***Colinus virginianus)*
Short-term dietary (30 days): LC50: 0.56mg/kg of food **(***Colinus virginianus)*

12.2 Persistence and degradability

Biodegradation: Not easily biodegradeable
Degradation pathway and rate in soil: DT50: between 417 and 976 days
Degradation pathway and rate in water: Hydrolysis DT50: 175 days (pH7) ; >1 year (pH 5) -11.2%
Degradation after 30 days –Photolysis DT50: between 20 and 60 minutes

12.3 Bioaccumulative potential
Log pow: 6.29

Bioconcentration factor (BCF)(Fish): 39974 (calculated) –High bioaccumulative potential

12.4 Mobility in soil
Not mobile in soil

12.5 Results of PBT and vPvB assessment
PBT Potential

12.6 Other adverse effects:
None known

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

Product disposal:
Product should be disposed of according to applicable legislation and regulations. It is recommended that that any waste product is stored or destroyed by incineration by waste disposal companies. Care should be taken to ensure that disposal methods used do not expose the product to non-target wild, or domestic animals or pets. Dispose according to local or National regulations. Do not release into drains or waterways. Do not contaminate water, food or feed by storage or disposal. Do not contaminate soil, water bodies or watercourses with chemicals or used containers. Refer to local waste and environment regulations.

Packaging: The empty container should not be used for any other purpose and should be disposed of according to local and national regulations. Do not reuse or refill the container

SECTION 14: Transport Information

	Land transport (ADR/RID)	Inland waterway transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN No.	Not dangerous goods	Not dangerous goods	Not dangerous goods	Not dangerous goods

14.2 UN Proper shipping name	Not dangerous goods	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.3 Transport hazard class(es)	Not dangerous goods	Not dangerous goods	Not dangerous goods	Not dangerous goods
Hazard label(s)	Not dangerous goods	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.4 Packing group	Not dangerous goods	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.5 Enviromental hazards	Not dangerous goods	Not dangerous goods	Not dangerous goods	Not dangerous goods

14.6 Special precautions for user: None

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

Additional information N/A

SECTION 15: Regulatory Information

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

15.1.1 EU regulations:

Classification of the substance or mixture according to Regulation (EC) No 1272/2008

15.1.2 National regulations: As above

15.2 Chemical Safety Assessment: N/A

SECTION 16: Other Information

16.1 Indication of changes: N/A

16.2 Abbreviations and acronyms:

CLP: Classification, Labelling and Packaging
LD50: Lethal dose 50%
LC50: Lethal concentration 50%
LOAEL: Lowest observeable adverse effect level

NOEL: No observeable effect level
NOEC: No observeable effect concentration
EC50: Effective concentration 50%
PBT: Persistent, biocumulative, toxic
vPvB: Very persistent, very bioaccumulative
ADR: Agreement concerning the international carriage of Dangerous goods by road
IATA: International Air Transport Association
IMDG: International Maritime Dangerous goods code

16.3 Key literature references and sources for data : Liphatech, France

16.4 Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]:
See SECTION 2.1 (classification).

16.5 Relevant H- and EUH-phrases (number and full text):
H300 Fatal if swallowed
H310 Fatal if in contact with skin
H330 Fatal if inhaled
H360: May damage the unborn child
H373: May cause damage to organs through prolonged or repeated exposure
H412: Very toxic to aquatic life with long lasting effects

16.6 Training advice: Read all instructions carefully before use

16.7 Further information:

MSDS information:
This Safety data sheet is compiled using data submitted for raw materials and practical experience.
This Safety Data Sheet is prepared in compliance with Regulation 1272/2008 and Annex Iof the REACH regulation as amended by Regulation 1907/2006

This safety data sheet provides health and safety information. This product is to be used in applications with best use practice. Individuals handling this product should be informed under COSHH of the recommended safety precautions and should have access to this information. The product information in this data sheet is to the best of our knowledge correct as at the date of publication.Westland Horticulture Limited does not accept responsibility for damage caused by incorrect use of this information.

Training and related advice:
This document contains important information to ensure the safe storage, handling and use of this product. It is the responsibility of your organisation to ensure that the information contained in this document is communicated to the end user and that all necessary training to enable the product to be used correctly has been given.

For further information please contact Westland Horticulture Ltd, 14 Granville Industrial Estate, Granville Road, Dungannon, County Tyrone, BT70 1NJ.