

1 Identification of the preparation and the supplying Company

- 1.1** Ratak cut wheat (UK-2012-0313)
1.2 A ready to use cereal based rodenticide
1.3 Killgerm Chemicals Ltd, Wakefield Road, Ossett, West Yorkshire, WF5 9AJ.
Tel: +44 (0)1924 268450 Fax: (0)1924 265033 Email: technical@Killgerm.com
1.4 Emergency telephones. Medical professionals should use National Poisons Information Service
0870 600 6266. Killgerm Chemicals Ltd, 01924 268452 (Office hours)
Non-medical professionals should seek information by contacting NHS 111, Tel :111

2 Hazards identification**2.1. Classification of the substance or mixture**

Repro tox cat 1B

STOT RE (blood) 2

H360 May Damage the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure

2.2. Label elements**Signal word: DANGER**

H360 May Damage the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure

Precautionary Statement

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

P102 Keep out of reach of children.

P103 Read label before use.

Precautionary Statements (prevention):

P280 Wear protective gloves/clothing

P260 Do not breath dust

P201 Obtain special instructions for use

P202 Do not handle until all safety precautions have been read and understood

Precautionary statements (Response):

P314 Get medical advice/attention if you feel unwell

P308+P311 IF exposed or concerned: Call a POISON CENTER or doctor/physician

Precautionary Statements (Storage):

P405 Store locked up

Precautionary Statements (Disposal):

P501 Dispose of contents/container to hazardous or special waste collection point.

To avoid risk to man and the environment comply with the instructions for use. Safety data sheet available for professional user on request.

2.3. Other hazard

None expected under normal conditions of use. This product contains Difenacoum, an indirect anticoagulant. Any signs of poisoning are unlikely to occur until 12-18 hours after ingestion. Thereafter, they will develop progressively and may rapidly appear.

Clinical signs result from an increased bleeding tendency and include: an increase in prothrombin time, bruising easily with occasional gum bleeding, blood in the stool or urine, excessive bleeding from minor cuts and abrasions, pale mouth and cold gums, anorexia and general weakness. More severe cases of poisoning include haemorrhage (usually internal) and shock.

This product is hazardous to mammals including domesticated animals, and birds if ingested.

Exposure of non-target animals should be prevented.

3 Composition and information on ingredients

3.2. Mixtures

Hazardous Components in Product

Ingredient Name	Classification	Concentration	H Phrases
Difenacoum Technical Material CAS Number: 56073-07-5 EC-Number: 259-978-4 INDEX- Number:607- 157-00-X	Acute Tox 1 (inhalation,oral,dermal) Repro Tox 1A STOT RE 1 (blood) Aquatic Acute1 Aquatic Chronic 1 M-factor acute:10 M-factor chronic:10	0.005%w/w	H310 H330 H300 H360D H372 H400 H410
Bitrex CAS Number: 3734-33-6	Acute Tox category. 4, Skin Irrit category. 2, Eye Dam category. 1, Aquatic Chronic category 3,	<2.5%	H302,H315,H332,H318 H412

See section 16 for full text of R-phrases, H phrases and hazard classification of ingredients.

4 First Aid measures

4.1. Description of first aid measures

Ingestion (swallowing): Immediately rinse mouth and then drink 200-300ml of water, seek medical attention

Inhalation: Keep patient calm, remove to fresh air, seek medical attention

Skin contact: Immediately wash thoroughly with soap and water, seek medical attention.

Eye contact: Wash affected eyes for at least 15 minutes under running water with eyelids held open. Obtain medical advice if necessary

4.2. Most important symptoms and effects, both acute and delayed: Increased tendency to bleed. In severe cases, massive bleeding from internal organs may result in circulatory shock, which could prove fatal. The onset of symptoms is delayed for up to 4 days after uptake. Hazards: The substance/ product is an anticoagulant rodenticide with a coumarin-type mode of action.

4.3. Indication of any immediate medical attention and special treatment needed :

Difenacoum is an indirect anticoagulant. Vitamin K1 (phytomenadione) is antidotal. 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. For comprehensive medical advice on the treatment of poisoning, contact the nearest Poisons Information Centre.

5 Fire-fighting measures

5.1. Extinguishing media

Use water spray, foam or dry chemical. Cool the smouldering material with water spray to minimise the possibility of re-ignition. Keep containers and surroundings cool with water spray. Unsuitable extinguishing media for safety reasons: carbon dioxide and water jet

5.2. Special hazards arising from the substance or mixture:

This product is non-flammable, but combustible. May produce toxic fumes of carbon monoxide, carbon dioxide and nitrogen oxides if involved in a fire.

5.3. Advice for fire-fighters

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information: Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. In case of fire and/or explosion do not breathe fumes. Keep container cool by spraying with water if exposed to fire.

6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures:

Personnel dealing with accidental spills and release of the mixture should wear personal protective equipment described in section 8 under "spillage". Avoid dust formation. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

6.2. Environmental precautions:

In case of accidental spills keep away from drains, surface and ground water. Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

6.3. Methods and material for containment and cleaning up:

For small amounts: Contain with dust binding material and dispose of. For Large amounts: Sweep/shovel up. Avoid raising dust. Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which should be labelled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Wear suitable protective equipment.

6.4. Reference to other sections:

Refer to section 8 and 13 for additional information.

7 Handling and storage

7.1. Precautions for safe handling

NO special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work

areas. When using do not eat, drink or smoke. Hands and /or face should be washed before breaks and at the end of the shift.

If dead and/or dying rats or mice are found during and after the control program, these must be cleared away immediately in order to avoid secondary poisoning phenomena. Do not apply in the open- cover bait points or use bait boxes.

Protection against fire and explosion: Dust can form an explosive mixture with air. Avoid dust formation. Prevent electrostatic charge- source of ignition should be kept well clear- fire extinguishers should be kept handy.

7.2. Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds. Odour-sensitive: Segregate from products releasing odours. Further information on storage conditions: Protect against, moisture. Keep away from heat. Protect from direct sunlight.

STORE IN ORIGINAL CONTAINER, tightly closed, in a safe place. Store in a cool dry place. Protect from frost.

7.3. Specific end use(s)

For the relevant identified use(s) listed in section 1 the advice mentioned in this section 7 is to be observed.

8 Exposure controls and personal protection

8.1. Control parameters

No specific national limit values have been established.

No occupational exposure limits known. Refer to the current edition of HSE Guidance Note EH40 occupational exposure limits (united kingdom). For normal use and handling refer to the product label/leaflet. In all other cases the following apply.

8.2. Exposure controls

Where exposure may occur engineering controls should be employed. A risk assessment should be carried out and the following PPE may be appropriate /required

PPE	ITEM IN USE	SPILLAGE
Respirators		Half mask respirator to EN140 plus P class filter to EN 143 to required (nominal) protection factor (minimum).Type 3 or FFP3
Gloves	Unlined/Flock lined, synthetic rubber/PVC to EN 374. (300mm in length) e.g. Nitrile.	Unlined/Flock lined, synthetic rubber/PVC to EN 374. (300mm in length) e.g. Nitrile
Overall	Basic type e.g. Heavy duty polycotton or coverall type 5/6.	Coverall type 5/6.
Goggles/ Face shield		Goggles to EN 166 3459B.

General safety and hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

9 Physical and chemical properties

9.1. General information

Appearance: A green/blue whole wheat grain bait
Odour: characteristic wheat odour.
pH: Not applicable
Density: 0.69 g/cm³ at 20°C
Flammability: Will burn in a fire
Boiling point/boiling range: Not applicable
Vapour density: Not applicable
Vapour pressure: Not applicable
Melting point/freezing point: Not applicable
Solubility in water: Insoluble
Solubility in other solvents: not determined
Explosive properties: None
Combustibility: combustible
Oxidising properties: None
Evaporation rate: not applicable
Partition coefficient: Partitioning coefficient n-octanol/water (log K_{ow}): 7.6 of difenacoum
Decomposition temp: not determined
Auto-ignition temp: Not determined

9.2 Other Information

Self-heating ability: it is not a substance capable of spontaneous heating.

10 Stability and reactivity

10.1. Reactivity: Not reactive mixture. No hazardous reactions if stored and handled as prescribed/indicated.

10.2. Chemical stability: Mixture is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3. Possibility of hazardous reactions: None anticipated. NO hazardous reactions if stored and handled as prescribed/indicated.

10.4. Conditions to avoid: Avoid extremes of temperature. See MSDS section 7- Handling and storage.

10.5. Incompatible materials: Store away from strong oxidising agents, strong acids and strong bases.

10.6. Hazardous decomposition products: Carbon monoxide and oxides of nitrogen, toxic and irritants released if mixture is involved in a fire. No hazardous decomposition products if stored and handled as prescribed/indicated.

11 Toxicological information

11.1 Information on toxicological effects

(a) Acute toxicity: Information has been derived from the properties of the individual ingredients. Experimental/calculated data: LD₅₀ rat(oral):36000mg/kg LC₅₀rat (by inhalation):72.92-116.96mg/l 4h , ld₅₀ rat (dermal):1260000mg/kg

Inhalation- Not an anticipated route of exposure. LC₅₀ rat (by inhalation):72.92-116.96mg/l 4h . LD₅₀ rat (dermal):1260000 mg/kg

(b) Corrosivity/Irritation: Not irritating to the skin. Not irritating to the eyes. The product has not been tested. The statement has been derived from the properties of individual components.

(c) Sensitisation: contains no known skin or respiratory sensitizers.

(d) Repeated dose toxicity: The product has not been tested. Repeated exposure to small quantities may affect certain organs, Damages the coagulation system.

(e) Mutagenicity/Carcogenicity: Mutagenicity teste revealed no genotoxic potential. The product has not been tested. The statement has been derived from the properties of individual components.

(f) Reproductive toxicity: Product does not contain any ingredients known to have effects on fertility or the reproductive system. The product has not been tested. The statement has been derived from the properties of individual components.

11.2 Other data: see section 2.3

12 Ecological information

12.1. Toxicity: The Difenacoum in this product is classified as toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment. However, when used in accordance with instructions, controlled release of this product is not expected to cause environmental contamination. The following data is for components of the mixture

Toxicity to fish: *LC50 (96 h) 0.064 mg/l, Oncorhynchus mykiss*

Aquatic invertebrates: *EC50 (48 h) 0.52 mg/l, Daphnia magna (Directive 92/69/EEC, C.2)*

Aquatic plants: *No observed effect concentration (72 h) 0.25 mg/l (growth rate), Pseudokirchneriella subcapitata (Guideline 92/69/EEC, C.3)*

12.2. Persistence and degradability: Degradation in soil is slow. Difenacoum, soil half-life of 439 days. The product has not been tested. The statement has derived from properties of individual components.

12.3. Bio accumulative potential: The active ingredient properties indicate a potential to bio-accumulate. The product has not been tested.

12.4. Mobility in soil: Mobility potential is very low and will depend principally on the soil type. Difenacoum and any potential degradation products even if released indirectly to soil in small quantities are not likely to move through the soil profile and are unlikely to reach groundwater in significant quantities. The product has not been tested.

12.5. Results of PBT and vPvB assessment: The product contains a potential PBT substance. The product contains a potential vPvB substance.

12.6. Other adverse effects: None known. This product does not contain substances that are listed in Regulation (EC)1005/2009 on substances that deplete the ozone layer.

13 Disposal considerations

13.1. Waste treatment methods

- Empty outer pp 20k bag, uncontaminated- classified non-hazardous. EWC code 15 01 02
Consider recycling route.
- Empty outer pp 20k bag, contaminated but shaken empty. EWC code 20 01 19.
- Empty inner liner (20k bag), contaminated but shaken empty. EWC code 20 01 19.
- Empty pp bag plus inner liner, contaminated but shaken empty. EWC code 20 01 19.
- Coveralls, gloves, other PPE, contaminated. EWC code 15 02 03. Waste classification non-hazardous. None of hazardous properties apply.
- Spent bait. EWC code 20 01 19. Biocide solid waste. Waste classification hazardous.
- Contact supplier, local authority or Environment Agency for advice about disposal of waste items.

14 Transport information

14.1. UN number: Not applicable

14.2. UN proper shipping name: Not applicable

14.3. Transport hazard class(es) : Not applicable

14.4. Packing group: Not applicable

14.5. Environmental hazards: Not applicable

14.6. Special precautions for user: Not applicable

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

15 Regulatory information

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

Labelling according to Regulation (EC) No 1272/2008

Control of Substances Hazardous to Health Regulations 2002 (as amended).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

- Restricted to professional users.
- Refer to other relevant measures such as the Health and Safety at Work etc. Act 1974 and the COSHH regulations and guidance.
- The information contained in this data sheet does not constitute the user's own assessment of workplace risks as required by legislation.

15.2. Chemical safety assessment: Advice on product handling can be found in sections 7 and 8.

16 Other information

Use only in accordance with label instructions.

Operatives using this product should be trained in its use.

The information in this data sheet should be considered when undertaking a risk assessment under the COSHH regulations.

Ingredient classification data:

Repro tox cat 1A – Reproductive toxicity cat 1A

STOT RE -Specific target organ toxicity- repeated exposure

Acute tox- Acute toxicity

Aquatic Tox- Hazardous to the aquatic environment-acute

Aquatic Chronic- Hazardous to the aquatic environment-chronic

H360D- May damage the unborn child

H373- May cause damage to organs (Blood) through prolonged or repeated exposure.

EUH401- To avoid risks to human health and the environment, comply with the instructions for use.

H310- Fatal in contact with skin

H330-Fatal if inhaled

H300-Fatal if swallowed

H311: Toxic in contact with skin

H332: Harmful if inhaled

H411: Toxic to aquatic life with long lasting effects

H412: Harmful to aquatic life with long lasting effects

H372: Causes damage to organs through prolonged or repeated exposure

H302: Harmful if swallowed

H315: Causes skin irritation

H332: Harmful if inhaled

H318: Causes serious eye damage

This data sheet does not constitute a COSHH assessment.

The information contained within this data sheet is strictly for general guidance only and should not be relied upon over and above this. This data sheet is intended to provide general health and safety guidance on the handling, storage and transportation of the preparation. The information provided in this data sheet is accurate at the date of publication and will be updated as and when appropriate. No liability will be accepted by Killgerm Chemicals Limited for any loss, injury or damage arising from any failure to comply with the information and advice contained within this data sheet and/or failure to comply with the manufacturer's guidelines, product label data and any associated technical usage literature.