

**Safety Data Sheet**according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878  
Issue date: 21/04/2022 Revision date: 21/04/2022 Version: 1.0**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product form : Mixture  
Trade name : Knockout Wheat Sachet (Rat & Mouse Killer Whole Wheat Sachet)  
Product group : End product

**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.2.1. Relevant identified uses**

Main use category : Professional use  
Use of the substance/mixture : Ready To Use Rodenticide (PT-14 Biocidal Product)  
Use of the substance/mixture : Rodenticides

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet**

Barrettine Environmental Health Ltd Ltd  
St Ivel Way Warmley  
United Kingdom– BS30 8TY Bristol  
United Kingdom  
T +44 (0) 1179 672222 - F +44 (0) 1179 614122  
[beh@barrettine.co.uk](mailto:beh@barrettine.co.uk) - [www.barrettine.co.uk](http://www.barrettine.co.uk)

**1.4. Emergency telephone number**

Emergency number : +44 (0) 1179 672222 (Office hours only 8am - 5pm Mon- Thurs. 8 am - 4.30 pm Fri.)  
+44 (0) 1270 502891 (Out of hours emergency number)

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	NHS 111/NHS 24/NHS Direct		111 0845 4647	or call a doctor

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Specific target organ toxicity – Repeated exposure, Category 2 H373

Full text of H- and EUH-statements: see section 16

**Adverse physicochemical, human health and environmental effects**

No additional information available

**2.2. Label elements****Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP) :



GHS08

Signal word (CLP) : Warning

# Knockout Wheat Sachet (Rat & Mouse Killer Whole Wheat Sachet)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Contains	: Brodifacoum (ISO); 4-hydroxy-3-(3-(4'-bromo-4-biphenyl)-1,2,3,4-tetrahydro-1-naphthyl) coumarin
Hazard statements (CLP)	: H373 - May cause damage to organs through prolonged or repeated exposure.
Precautionary statements (CLP)	: P314 - Get medical advice/attention if you feel unwell. P260 - Do not breathe dusts or mists. P405 - Store locked up. P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 2.3. Other hazards

Other hazards which do not result in classification	: This product contains an anticoagulant substance. If ingested, symptoms, which may be delayed, may include nosebleed and bleeding gums. In severe cases, there may be bruising and blood present in the faeces or urine. Antidote: Vitamin K1 administered by medical/veterinary personnel only.
---	---

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Brodifacoum (ISO); 4-hydroxy-3-(3-(4'-bromo-4-biphenyl)-1,2,3,4-tetrahydro-1-naphthyl) coumarin	CAS-No.: 56073-10-0 EC-No.: 259-980-5 EC Index-No.: 607-172-00-1	< 0.1	Acute Tox. 1 (Oral), H300 Acute Tox. 1 (Dermal), H310 Acute Tox. 1 (Inhalation), H330 Repr. 1A, H360D STOT RE 1, H372 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

### Specific concentration limits:

Name	Product identifier	Specific concentration limits
Brodifacoum (ISO); 4-hydroxy-3-(3-(4'-bromo-4-biphenyl)-1,2,3,4-tetrahydro-1-naphthyl) coumarin	CAS-No.: 56073-10-0 EC-No.: 259-980-5 EC Index-No.: 607-172-00-1	( 0.002 $\leq$ C < 0.02) STOT RE 2, H373 ( 0.003 $\leq$ C $\leq$ 100) Repr. 1A, H360D ( 0.02 $\leq$ C $\leq$ 100) STOT RE 1, H372

Full text of H- and EUH-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Specific treatment (see supplemental first aid instruction on this label).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If necessary seek medical advice.
First-aid measures after skin contact	: Rinse and then wash skin thoroughly with water and soap. Remove contaminated clothing. If necessary seek medical advice.
First-aid measures after eye contact	: In case of contact, immediately rinse eyes with plenty of water for at least 15 minutes. If necessary seek medical advice.
First-aid measures after ingestion	: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.

# Knockout Wheat Sachet (Rat & Mouse Killer Whole Wheat Sachet)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : This product contains an anticoagulant substance. If ingested, symptoms, which may be delayed, may include nosebleed and bleeding gums. In severe cases, there may be bruising and blood present in the faeces or urine.  
Antidote: Vitamin K1 administered by medical/veterinary personnel only.

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

The primary treatment are the antidote therapy and the clinical assessment. Antidote: Vitamin K1 (phytomenadione). The effectiveness of the treatment should be monitored by measuring the clotting time. Do not interrupt the treatment until the clotting time is back to normality and is stable. This product contains an anticoagulant substance. If ingested, symptoms, which may be delayed, may include nosebleed and bleeding gums. In severe cases, there may be bruising and blood present in the faeces or urine.

Antidote: Vitamin K1 administered by medical/veterinary personnel only. Consult a Poison Control Centre.

UK medical professionals should contact the National Poisons Information Service ([www.npis.org](http://www.npis.org)) for further advice.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide (CO<sub>2</sub>).  
Unsuitable extinguishing media : None to our knowledge. If there is a fire close by, use suitable extinguishing agents.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.  
Other information : Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.  
Emergency procedures : Do not breathe dust.  
Measures in case of dust release : Keep unprotected persons away.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".  
Emergency procedures : Evacuate unnecessary personnel.

### 6.2. Environmental precautions

Avoid release to the environment. Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

### 6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.  
Methods for cleaning up : Mechanically recover the product.  
Other information : Dispose of materials or solid residues at an authorised site.

### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of contaminated materials refer to section 13: "Disposal considerations". See Section 7 for information on safe handling.

# Knockout Wheat Sachet (Rat & Mouse Killer Whole Wheat Sachet)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment. Keep away from domestic and farm animals. Keep out of the reach of children.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a well-ventilated place. Keep cool. Keep locked up and out of reach of children. Keep away from domestic and farm animals.
Information on mixed storage	: Keep away from food, drink and animal feeding stuffs.
Storage area	: Protect from frost. Protect from humidity and water.

#### 7.3. Specific end use(s)

Rodenticide. When this product is supplied to a user for the control of rodents, it shall only be supplied to a professional user holding certification demonstrating compliance with UK rodenticide stewardship regime requirements.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1 National occupational exposure and biological limit values

Knockout Wheat Sachet (Rat & Mouse Killer Whole Wheat Sachet)	
United Kingdom - Occupational Exposure Limits	
Local name	Sucrose
WEL TWA (OEL TWA) [1]	10 mg/m <sup>3</sup>
WEL STEL (OEL STEL)	20 mg/m <sup>3</sup>
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

##### Exposure limit values for the other components

MPG (propane-1,2-diol) (57-55-6)	
United Kingdom - Occupational Exposure Limits	
Local name	Propane-1,2-diol
WEL TWA (OEL TWA) [1]	10 mg/m <sup>3</sup> particulates 474 mg/m <sup>3</sup> total vapour and particulates
WEL TWA (OEL TWA) [2]	150 ppm total vapour and particulates
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

##### SUCROSE (57-50-1)

United Kingdom - Occupational Exposure Limits	
Local name	Sucrose
WEL TWA (OEL TWA) [1]	10 mg/m <sup>3</sup>
WEL STEL (OEL STEL)	20 mg/m <sup>3</sup>
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

##### 2,6-Di-tert-butyl-p-cresol (128-37-0)

United Kingdom - Occupational Exposure Limits	
Local name	2,6-Di-tert-butyl-p-cresol

# Knockout Wheat Sachet (Rat & Mouse Killer Whole Wheat Sachet)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

<b>2,6-Di-tert-butyl-p-cresol (128-37-0)</b>		
WEL TWA (OEL TWA) [1]	10 mg/m <sup>3</sup>	
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE	
<b>STARCH (9005-25-8)</b>		
<b>United Kingdom - Occupational Exposure Limits</b>		
Local name	Starch	
WEL TWA (OEL TWA) [1]	4 mg/m <sup>3</sup> respirable 10 mg/m <sup>3</sup> total inhalable	
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE	

### 8.1.2. Recommended monitoring procedures

No additional information available

### 8.1.3. Air contaminants formed

No additional information available

### 8.1.4. DNEL and PNEC

No additional information available

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

### 8.2.2. Personal protection equipment

#### Personal protective equipment:

Protective clothing. Gloves. Wear chemically resistant gloves tested to EN374.

#### Personal protective equipment symbol(s):



#### 8.2.2.1. Eye and face protection

##### Eye protection:

Safety glasses

#### 8.2.2.2. Skin protection

##### Skin and body protection:

Wear suitable protective clothing

##### Hand protection:

Wear chemically resistant gloves tested to EN374

#### 8.2.2.3. Respiratory protection

##### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

#### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

# Knockout Wheat Sachet (Rat & Mouse Killer Whole Wheat Sachet)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: red.
Odour	: characteristic.
Odour threshold	: No data available
pH	: No data available
pH solution	: 6.61 (CIPAC MT 75.3 - 1% H <sub>2</sub> O)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.188
Solubility	: Material insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

#### 10.5. Incompatible materials

Keep only in the original container.

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified

# Knockout Wheat Sachet (Rat & Mouse Killer Whole Wheat Sachet)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Acute toxicity (inhalation) : Not classified

### **Brodifacoum (ISO); 4-hydroxy-3-(3-(4'-bromo-4-biphenyl)-1,2,3,4-tetrahydro-1-naphthyl) coumarin (56073-10-0)**

LD50 oral rat	0.16 mg/kg
LD50 dermal rat	200 mg/kg Source: HSDB
LC50 Inhalation - Rat	0.5 mg/m <sup>3</sup> Source: HSDB

Skin corrosion/irritation : Not classified  
Serious eye damage/irritation : Not classified  
Respiratory or skin sensitisation : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified  
Reproductive toxicity : Not classified  
STOT-single exposure : Not classified  
STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

### **Brodifacoum (ISO); 4-hydroxy-3-(3-(4'-bromo-4-biphenyl)-1,2,3,4-tetrahydro-1-naphthyl) coumarin (56073-10-0)**

NOAEL (oral, rat, 90 days)	0.04 mg/kg bodyweight/day
STOT-repeated exposure	Causes damage to organs (blood) through prolonged or repeated exposure.

Aspiration hazard : Not classified

### **Knockout Wheat Sachet (Rat & Mouse Killer Whole Wheat Sachet)**

Viscosity, kinematic	Not applicable
----------------------	----------------

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.  
Hazardous to the aquatic environment, short-term (acute) : Not classified  
Hazardous to the aquatic environment, long-term (chronic) : Not classified  
Not rapidly degradable

### **Brodifacoum (ISO); 4-hydroxy-3-(3-(4'-bromo-4-biphenyl)-1,2,3,4-tetrahydro-1-naphthyl) coumarin (56073-10-0)**

LC50 - Fish [1]	0.042 mg/l
EC50 - Crustacea [1]	0.25 mg/l
ErC50 algae	0.04 mg/l

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

### **Brodifacoum (ISO); 4-hydroxy-3-(3-(4'-bromo-4-biphenyl)-1,2,3,4-tetrahydro-1-naphthyl) coumarin (56073-10-0)**

Partition coefficient n-octanol/water (Log Pow)	8.5 Source: HSDB
Partition coefficient n-octanol/water (Log Kow)	≈ 6.12

### 12.4. Mobility in soil

No additional information available

# Knockout Wheat Sachet (Rat & Mouse Killer Whole Wheat Sachet)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

### 12.5. Results of PBT and vPvB assessment

#### Component

Brodifacoum (ISO); 4-hydroxy-3-(3-(4'-bromo-4-biphenyl)-1,2,3,4-tetrahydro-1-naphthyl) coumarin (56073-10-0)

This substance meets the PBT criteria of REACH regulation, annex XIII  
This substance meets the vPvB criteria of REACH regulation, annex XIII

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste) : Do not dispose of with domestic waste.  
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

#### Inland waterway transport

Not applicable

#### Rail transport

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable



# Knockout Wheat Sachet (Rat & Mouse Killer Whole Wheat Sachet)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

### SECTION 15: Regulatory information

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

##### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

##### 15.1.2. National regulations

###### United Kingdom

British National Regulations

: Authorisation Holder: ARROW REGULATORY LTD, 149-155 CANAL ST, NOTTINGHAM, NG1 7HR, UK. Authorisation No GB-2015-0895-0003.

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### SECTION 16: Other information

#### 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
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration

# Knockout Wheat Sachet (Rat & Mouse Killer Whole Wheat Sachet)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

<b>Abbreviations and acronyms:</b>	
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

<b>Full text of H- and EUH-statements:</b>	
Acute Tox. 1 (Dermal)	Acute toxicity (dermal), Category 1
Acute Tox. 1 (Inhalation)	Acute toxicity (inhal.), Category 1
Acute Tox. 1 (Oral)	Acute toxicity (oral), Category 1
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
H300	Fatal if swallowed.
H310	Fatal in contact with skin.
H330	Fatal if inhaled.
H360D	May damage the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
Repr. 1A	Reproductive toxicity, Category 1A
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.