Safety Data Sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name **DIFKILL BLOC**

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

Intended use **Ready to use rodenticide bait in wax blocks.**
For professional and trained professional users.

1.3. Details of the supplier of the safety data sheet

Name **COLKIM S.r.l.**
Full address **Via Piemonte, 50**
District and Country **40064 OZZANO EMILIA (BO)**
Italia

Tel. 051 / 799445

Fax 051 / 797555

e-mail address of the competent person

responsible for the Safety Data Sheet **info@colkim.it**
Product distribution by: **COLKIM S.r.l. - Via Piemonte, 50 - 40064 OZZANO E. (BO)**

1.4. Emergency telephone number.

For urgent inquiries refer to. **118**

Contact a poison control center:

Poison Control Center	Address	Telephone Number
CAV “Osp. Pediatrico Bambino Gesù”	P.zza Sant’Onofrio, 4 – 00165 Roma (RM)	06 68593726
Az. Osp. Univ. Foggia	V.le Luigi Pinto, 1 – 71122 Foggia (FG)	0881 732326
Az. Osp. "A. Cardarelli"	Via A. Cardarelli, 9 – 80131 Napoli (NA)	081 7472870
CAV Policlinico “Umberto I”	V.le del Policlinico, 155 – 00161 Roma (RM)	06 49978000
CAV Policlinico "A. Gemelli"	Largo Agostino Gemelli, 8 – 00168 Roma (RM)	06 3054343
Az. Osp. "Careggi" U.O. Tossicologia Medica	Largo Brambilla, 3 – 50134 Firenze (FI)	055 7947819
CAV Centro Nazionale di Informazione Tossicologica	Via Salvatore Maugeri, 10 – 27100 Pavia (PV)	0382 24444
Osp. Niguarda Ca' Granda	P.zza Ospedale Maggiore, 3 – 20162 Milano (MI)	02 66101029
Azienda Ospedaliera Papa Giovanni XXII	P.zza OMS, 1 – 24127 Bergamo (BG)	800883300

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Reproductive toxicity, category 1B	H360D	May damage the unborn child.
Specific target organ toxicity - repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words: **Danger**

Hazard statements:

H360D	May damage the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure. Restricted to professional users.

Precautionary statements:

P102	Keep out of reach of children.
P202	Do not handle until all safety precautions have been read and understood
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P308+P313	IF exposed or concerned: Get medical advice / attention.
P501	Dispose of contents and containers according to the applicable national regulation

2.3. Other hazards

The product contains DIFENACOUM that can cause bleeding if swallowed. Harmful if ingested or absorbed through the skin.
No adverse effects are known under normal use conditions.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	Conc. %	Classification 1272/2008 (CLP)
DIFENACOUM		
CAS 56073-07-5	0,005	Repro Tox 1B H360D; Acute Tox Cat 1 H300; Acute Tox. 1 H310; Acute Tox Cat 1 H330; STOT RE 1 H372; Aquatic Acute 1 H400; Aquatic Chronic 1 H410
EC 259-978-4		
INDEX -		
Reg. no. 607-157-00-X		
DENATONIO BENZOATO		
CAS. 3734-33-6	0,001	Skin Irrit.2 H315, Eye Dam.1 H318, Aquatic Chronic.3 H412, Acute Tox.4 H302, Acute Tox.4 H332
CE 223-095-2		
SORBIC ACID		
CAS. 110-44-1	0,1 – 0,5	Skin.irr.2 H315; Eye.irr.2 H319; STOT SE 3 H335

CE 203-768-7

The product contains substance with a community workplace exposure limit (See section 8).
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures
EYES: Wash affected eyes for at least 15 minutes under running water with eyelids held open, without pressing (remove contact lenses). In case of irritation and/or persistent pain, seek immediate medical assistance.
SKIN: Wash thoroughly with soap and water. In case of irritation and/or persistent pain, seek immediate medical assistance.
INHALATION: not relevant information.
INGESTION: not give anything by mouth or induce vomiting unless instructed by physician.

4.2. Most important symptoms and effects, both acute and delayed
Ingestion of excessive quantities may cause nausea, vomiting, loss of appetite, extreme thirst, lethargy, diarrhea, bleeding

4.3. Indication of any immediate medical attention and special treatment needed
In case of ingestion, administer vitamin K1 by oral or intramuscular as indicated in case of overdose of bishydroxychumarin.
Repeat as necessary based on prothrombin times monitoring.
ANTIDOTO: phytomenadione (Vitamin K1).

SECTION 5. Firefighting measures

5.1. Extinguishing media
SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture
High temperature decomposition or burning in air can result in the formation of toxic gases, which may include carbon monoxide and traces of bromine and hydrogen bromide.

5.3. Advice for firefighters
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal firefighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions
Do not allow bait to enter drains or water courses. Where there is contamination of streams, rivers, or lakes contact the appropriate environment agency.

6.3. Methods and material for containment and cleaning up
In case of contamination of streams, rivers, or lakes contact the appropriate environment agency.

6.4. Reference to other sections
Any information on personal protection and disposal is given in sections 7, 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling
Keep product in the original container. Handle the product after the consultation of all the other sections of this safety datasheet. Do not eat, drink or smoke whilst handling. Do not handle the product near food, animal foodstuffs or drinking water. Keep out of reach of children. Wash thoroughly with soap and water after handling.Avoid direct contact with the product.

7.2. Conditions for safe storage, including any incompatibilities
Store only in the original container in a fresh and well aerated place, inaccessible to pets and wildlife. Keep out of food and animal foodstuffs. Keep the product in containers clearly labelled. Keep out of reach of children.

7.3. Specific end use(s)
Rodenticide Bait.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italy	Legislative Decree No 81 of 9 Aprile 2008

1,2-PROPANEDIOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
WEL	GBR	474	150		
VLEP	ITA		150		

Predicted no-effect concentration - PNEC.

Normal value in fresh water	260	mg/l
Normal value in marine water	26	mg/l
Normal value for fresh water sediment	572	mg/kg
Normal value for marine water sediment	57,2	mg/kg
Normal value of STP microorganisms	20000	mg/l

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers. Acute local	Acute systemic	Chronic local	Chronic systemic	Effects on workers Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation.			10 mg/m3	50 mg/m3			10 mg/m3	168 mg/m3

DIFENACOUM

Predicted no-effect concentration - PNEC.

Normal value in soil	2,04	mg/Kg

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

HAND PROTECTION
In the case of prolonged contact with the product, protect the hands with penetration-resistant work gloves (see standard EN 374).
Work glove material must be chosen according to the use process and the products that may form. Latex gloves may cause sensitivity reactions.

SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap

and water after removing protective clothing.

EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION
None required, unless indicated otherwise in the chemical risk assessment.

ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Wax Block
Colour	Blue
Odour	characteristic
Odour threshold	N.A.
pH	6.72
Melting point / freezing point	N.R.
Initial boiling point	Not applicable
Boiling range	Not applicable
Flash point	Not applicable
Evaporation Rate	Not applicable
Flammability of solids and gases	not applicable
Lower inflammability limit	Not applicable
Upper inflammability limit	Not applicable
Lower explosive limit	Not applicable
Upper explosive limit	Not applicable
Vapour pressure	Not applicable
Vapour density	Not applicable
Relative density	1,08 g/ml
Solubility	insoluble in water
Partition coefficient: n-octanol/water	N.A.
Auto-ignition temperature	Not applicable
Decomposition temperature	Not applicable
Viscosity	Not applicable
Explosive properties	Not applicable
Oxidising properties	Not applicable

9.2. Other information
Information not available

SECTION 10. Stability and reactivity

10.1. Reactivity
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability
The product is stable in normal conditions of use and storage for at least 24 months, following the instruction on the label.

10.3. Possibility of hazardous reactions
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials
Information not available

10.6. Hazardous decomposition products
For thermal decomposition or in case of fire, can be released gases and vapours which are potentially harmful to health.

SECTION 11. Toxicological information

No episodes of damage to health due to exposure to the product. It is recommended to operate within the rules of good industrial hygiene
The preparation may, in sensitive people, cause mild health effects by inhalation and / or cutaneous absorption and / or contact with eyes and / or ingestion.

Pharmaco-dynamic actions- The preparation contains *cumarinoidi* at low concentration and may cause poisonings due to the inhibition of the vitamin K, only if swallowed in large quantity.

11.1. Information on toxicological effects

ACUTE TOXICITY
LC50 (Inhalation) of the mixture: Not classified (no significant component)
LD50 (Oral) of the mixture: Not classified (no significant component)
LD50 (Dermal) of the mixture: Not classified (no significant component)

DIFENACOUM
LD50 (Oral) 1,8 mg/kg
LD50 (Dermal) 51,4 mg/kg
LC50 (Inhalation) 0,00346 mg/l/4h

1,2-PROPANEDIOL
LD50 (Oral) 22000 mg/kg Rat
LD50 (Dermal) > 2000 mg/kg Rat

DENATONIUM BENZOATE
LD50 (Oral). 584 mg/kg Rat
LD50 (Oral). 508 mg/kg Rabbit

SORBIC ACID
LD50 (Oral) 7360 mg/kg
LD50 (Dermal) >2000 mg/kg

SKIN CORROSION / IRRITATION
Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION
Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION
Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY
Does not meet the classification criteria for this hazard class

CARCINOGENICITY
Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY
May damage the unborn child

STOT - SINGLE EXPOSURE
Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

May cause damage to organs

ASPIRATION HAZARD
Does not meet the classification criteria for this hazard class
Misuse can be harmful to human health.

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

DIFENACOUM

LC50 - Pesci	0,064 mg/l/96h SPECIE *Oncorhynchus mykiss*
EC50 - Crostacei	0,52 mg/l/48h SPECIE *Daphnia magna*
ErC50 – Alghe	0,51 mg/L/72h
NOEC - Cronica Alghe / Piante Acquatiche.	0,13 mg/l72h
LD50 – Uccelli	56 mg/Kg pc
NOEC – Uccelli	0,1 mg/kg cibo SPECIE *Japanese quail*

DENATONIUM BENZOATE

LC50 – for Fish.	>1000 mg/l/96h
LC50 - for Crustacea.	> 400 mg/l/96h
EC50 - for Crustacea.	13 mg/l/48h SPECIES *Daphnia magna*

1,2 PROPANEDIOL

LC50 – for Fish.	40613 mg/l/96h
EC50 – for Crustacea.	> 4000 mg/l/48h

12.2. Persistence and degradability.

DIFENACOUM:
Not readily biodegradable (according OECD criteria).
Hydrolytic half-life: t1/2> 1 year; Stable ta pH 4, 7 e 9.
Photolytic half-life: t1/2=0,083 days; Readily biodegradable for photolysis.
Readily biodegradable in sewage sludge and sediments, due to its high PogPow and its low solubility in water.

12.3. Bioaccumulative potential.

DIFENACOUM
BCFfish = 35645 – Calculated according to theTGD eq. 75, using log Kow = 7.6 (assessed by the measure of Koc).

PROPANEDIOL

Partition coefficient: n-octanol/water.	-1,07
BCF.	< 100

12.4. Mobility in soil

DIFENACOUM

The average life in soil is greater than 300 days

12.5. Results of PBT and vPvB assessment

DIFENACOUM is considered a potential PBT.
P: According to the data on the degradation in sea water, fresh water or available sediments, DIFENACOUM is considered potentially persistent.
B: Based on log Kow = 6.12 and fish BCF = 35645 (calculated), DIFENACOUM fulfills potentially the criteria for the B.

T: the criteria is fulfilled for DIFENACOUM.

12.6. Other adverse effects
Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

The preparation is not suitable for disposal in landfills and / or waste disposal public channels, natural streams or rivers. Recover if possible, or start to incineration plants. The preparation as such should be considered special hazardous waste. The correct classification is an obligation of the producer of the waste. The containers, even if completely empty, must not be disposed of properly and should be subjected to a proper waste disposal before being sent for disposal. If they contain residues must be classified, stored and sent to a suitable facility treatment in accordance with applicable local and national regulations. For non-professional use completely empty the container can be removed with household waste.
The CER codes recommended (which may change according to the use) are:
CER 07.04.13* – Solid waste containing hazardous substances.

CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.
The CER codes recommended (which may change according to the use) are:
CER 15.01.10* - Packaging containing residues of or contaminated by dangerous substances.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EC: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3

Contained substance
Point 30 DIFENACOUM

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment
Follow the information given in sections 7 and 8 of the SDS.

SECTION 16. Other information

Authorization of the Ministry of Health n. IT/2014/00260/AUT

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Repr. 1B	Reproductive toxicity, category 1B	
Acute Tox. 1	Acute toxicity, category 1	
Acute Tox. 4	Acute toxicity, category 4	
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1	
Eye Dam. 1	Serious eye damage, category 1	
Skin Irrit. 2	Skin irritation, category 2	
Eye irrit. 2	Eye irritation, category 2	
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1	
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1	
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3	
H360D	May damage the unborn child.	
H300	Fatal if swallowed.	
H310	Fatal in contact with skin.	
H302	Harmful if swallowed.	
H372	Causes damage to organs through prolonged or repeated exposure.	
H373	May cause damage to organs through prolonged or repeated exposure.	**H373**
H318	Causes serious eye damage.	
H315	Causes skin irritation.	
H335	May cause respiratory irritation.	
H332	Harmful if inhaled.	
H400	Very toxic to aquatic life.	
H410	Very toxic to aquatic life with long lasting effects.	
H412	Harmful to aquatic life with long lasting effects	

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train

- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:

The following sections were modified:
1.2; 2.1; 15.1; 16

Legend of the information contained at section 9.1 of the datasheet:

Not Applicable: the data or the characteristic is not applicable to the product in question, due to its nature.
N.R. - Not Relevant: the data or the characteristic is not relevant to determine the hazardous characteristics of the product.
N.A. - Not Available: the data or the characteristic, even though it would be potentially relevant to determine the characteristics of the product, is not available.