

**KLERAT WAX BLOCK 20 G**

Version 1

Revision Date 13.07.2007

Print Date 13.07.2007

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****PRODUCT INFORMATION**

**Product name** : KLERAT WAX BLOCK 20 G

**Design Code** : A12720B

**Use** : Rodenticide

**Company** : Syngenta Crop Protection AG  
Postfach  
CH-4002 Basel  
Switzerland

**Telephone** : +41 61 323 11 11

**Telefax** : +41 61 323 12 12

**Emergency telephone** : +44 1484 538444

**E-mail address** : safetydatasheetcoordination@syngenta.com

**2. HAZARDS IDENTIFICATION**

Unlikely to be hazardous.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****Hazardous components**

Chemical Name	CAS-No.	EC-No.	Symbol(s)	R-phrase(s)	Concentration
brodifacoum	56073-10-0	259-980-5	T+, N	R27/28 R48/24/25 R50/53	0.005 % W/W

For the full text of the R phrases mentioned in this Section, see Section 16.

**4. FIRST AID MEASURES**

**General advice** : Have the product container, label or Material Safety Data Sheet with you when calling the Syngenta emergency number, a poison control center or physician, or going for treatment.

**Inhalation** : Remove to fresh air.  
Keep patient warm and at rest.  
If breathing is irregular or stopped, administer artificial respiration.  
Call a physician or Poison Control Centre immediately.

**Skin contact** : Take off all contaminated clothing immediately.  
Wash off immediately with plenty of water.  
If skin irritation persists, call a physician.  
Wash contaminated clothing before re-use.

**KLERAT WAX BLOCK 20 G**

Version 1

Revision Date 13.07.2007

Print Date 13.07.2007

- Eye contact** : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Remove contact lenses.  
Immediate medical attention is required.
- Ingestion** : Take victim immediately to hospital.  
Do NOT induce vomiting.
- Symptoms** : Symptoms of poisoning are typical of anticoagulants. In severe cases there may be bruising, haematomas of the joints, blood in the faeces and urine
- Medical advice** : This product contains anticoagulants with an effect similar to warfarin in that they act by interfering with the synthesis of prothrombin.  
The specific measure of effect is the prothrombin time. Note this may not become prolonged until 12-18 hours after ingestion.  
The specific antidote is vitamin K1 (Phytomenandione)  
Antidote must be administered under medical supervision.  
Initially, antidote should be given by injection (10-20mg, or 0.25mg/kg for children, by slow intravenous infusion at a rate not exceeding 1mg/minute. In severe cases the use of fresh frozen plasma may be required).  
Maintenance treatment is given orally (40mg/day in divided doses for adults; up to 20mg/day in divided doses for children)  
The prothrombin time and the haemoglobin should be monitored. Patients should be kept under medical supervision until the prothrombin time has been normal for 3 consecutive days.  
Oral treatment may need continuing for several months (20mg/day in divided doses for adults and up to 20mg/day in divided doses for children). (For animal cases the dose is 2-5mg/kg)

**5. FIRE-FIGHTING MEASURES**

- Suitable extinguishing media** : Extinguishing media - small fires  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
Extinguishing media - large fires  
Alcohol-resistant foam  
or  
Water spray
- Extinguishing media which shall not be used for safety reasons** : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during fire fighting** : As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).  
Exposure to decomposition products may be a hazard to health.

**KLERAT WAX BLOCK 20 G**

Version 1

Revision Date 13.07.2007

Print Date 13.07.2007

- Special protective equipment for fire-fighters** : Wear full protective clothing and self-contained breathing apparatus.
- Further information** : Do not allow run-off from fire fighting to enter drains or water courses.  
Cool closed containers exposed to fire with water spray.

---

**6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions** : Refer to protective measures listed in sections 7 and 8.  
Avoid dust formation.
- Environmental precautions** : Do not flush into surface water or sanitary sewer system.
- Methods for cleaning up** : Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).  
Do not create a powder cloud by using a brush or compressed air.  
Clean contaminated surface thoroughly.
- Additional advice** : If the product contaminates rivers and lakes or drains inform respective authorities.

---

**7. HANDLING AND STORAGE****HANDLING**

- Advice on safe handling** : No special protective measures against fire required.  
Avoid contact with skin and eyes.  
When using, do not eat, drink or smoke.  
For personal protection see section 8.

**STORAGE**

- Requirements for storage areas and containers** : No special storage conditions required.  
Keep containers tightly closed in a dry, cool and well-ventilated place.  
Keep out of the reach of children.  
Keep away from food, drink and animal feedingstuffs.
- Other data** : Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures.

## KLERAT WAX BLOCK 20 G

Version 1

Revision Date 13.07.2007

Print Date 13.07.2007

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Components with workplace control parameters

Components	Exposure limit(s)	Value type	Source
brodifacoum	0.002 mg/m <sup>3</sup>	8 h TWA	SYNGENTA

#### ENGINEERING MEASURES

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.

The extent of these protection measures depends on the actual risks in use.

If airborne dust is generated, use local exhaust ventilation controls.

Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit.

Where necessary, seek additional occupational hygiene advice.

#### PERSONAL PROTECTIVE EQUIPMENT

- Protective measures** : The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice. Personal protective equipment should be certified to appropriate standards.
- Respiratory protection** : No personal respiratory protective equipment normally required. A particulate filter respirator may be necessary until effective technical measures are installed.
- Hand protection** : Chemical resistant gloves are not usually required. Select gloves based on the physical job requirements.
- Eye protection** : Eye protection is not usually required. Follow any site specific eye protection policies.
- Skin and body protection** : No special protective equipment required. Select skin and body protection based on the physical job requirements.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

- Form** : solid
- Colour** : dark blue
- Flash point** : > 61 °C
- Density** : 1.2 g/cm<sup>3</sup>
- Solubility in other solvents** : not soluble in Water

**KLERAT WAX BLOCK 20 G**

Version 1

Revision Date 13.07.2007

Print Date 13.07.2007

---

**10. STABILITY AND REACTIVITY**

- Hazardous decomposition products** : Combustion or thermal decomposition will evolve toxic and irritant vapors.
- Hazardous reactions** : None known.  
Hazardous polymerization does not occur.  
Stable under normal conditions.

---

**11. TOXICOLOGICAL INFORMATION**

- Acute oral toxicity** : male and female Rat, > 5,000 mg/kg  
Derived from components.
- Acute dermal toxicity** : male Rat, > 5,000 mg/kg  
Derived from components.
- Skin irritation** : Rabbit: Non-Irritating  
Derived from components.
- Eye irritation** : Rabbit: Non-Irritating  
Derived from components.
- Long term toxicity**
- Did not show carcinogenic, teratogenic or mutagenic effects in animal experiments.
- Excessive exposure slows blood clotting time and can cause bleeding, shock and death.  
This information applies to brodifacoum.

---

**12. ECOLOGICAL INFORMATION****ELIMINATION INFORMATION (PERSISTENCE AND DEGRADABILITY)**

- Bioaccumulation** : Brodifacoum has high potential to bioaccumulate.
- Stability in water** : Brodifacoum is persistent in water.
- Stability in soil** : Brodifacoum is persistent in soil.
- Mobility** : Brodifacoum has low mobility in soil.

**ECOTOXICITY EFFECTS**

- Toxicity to fish** : Oncorhynchus mykiss (rainbow trout), > 100 mg/l , 96 h  
Derived from components.

**KLERAT WAX BLOCK 20 G**

Version 1

Revision Date 13.07.2007

Print Date 13.07.2007

**Toxicity to aquatic invertebrates** : Daphnia magna (Water flea), > 100 mg/l , 48 h  
Derived from components.

---

**13. DISPOSAL CONSIDERATIONS**

**Product** : Do not contaminate ponds, waterways or ditches with chemical or used container.  
Do not dispose of waste into sewer.  
Where possible recycling is preferred to disposal or incineration.  
If recycling is not practicable, dispose of in compliance with local regulations.

**Contaminated packaging** : Empty remaining contents.  
Triple rinse containers.  
Empty containers should be taken for local recycling or waste disposal.  
Do not re-use empty containers.

---

**14. TRANSPORT INFORMATION****Land transport***ADR/ RID:*

Regulation: Not dangerous goods

**Sea transport***IMDG:*

Regulation: Not dangerous goods

**Air transport***IATA-DGR*

Regulation: Not dangerous goods

**KLERAT WAX BLOCK 20 G**

Version 1

Revision Date 13.07.2007

Print Date 13.07.2007

---

**15. REGULATORY INFORMATION****Labelling according to EC Directives**

<b>S-phrase(s)</b>	:	S 2	Keep out of the reach of children.
		S13	Keep away from food, drink and animal feedingstuffs.
		S20/21	When using do not eat, drink or smoke.

**Note** : Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 1999/45/EC.

---

**16. OTHER INFORMATION****Further information**

Text of R phrases mentioned in Section 2:

<b>R27/28</b>	Very toxic in contact with skin and if swallowed.
<b>R48/24/25</b>	Toxic: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.
<b>R50/53</b>	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

A vertical bar in the left margin indicates an amendment from the previous version.

Product names are a trademark or registered trademark of a Syngenta Group Company.

---