SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006



PREVICUR ENERGY

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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier Trade name PREVICUR ENERGY Product code (UVP) 06396712, 81705194 1.2 Relevant identified uses of the substance or mixture and uses advised against Use Fungicide 1.3 Details of the supplier of the safety data sheet Supplier **Bayer CropScience Limited** 230 Cambridge Science Park Milton Road Cambridge Cambridgeshire CB4 0WB United Kingdom Telephone +44(0)1223 226500 Telefax +44(0)1223 426240 **Responsible Department** Email: ukinfo@bayercropscience.com 1.4 Emergency telephone no. Emergency telephone no. 0800-220876 (UK 24 hr) +44(0)1635-563000 (Overseas 24 hr)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Skin sensitisation: Category 1

H317 May cause an allergic skin reaction.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

R43

2.2 Label elements

Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

- Propamocarb
- Fosetyl



Signal word: Warning

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Hazard statements

H317

May cause an allergic skin reaction.

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

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

2.3 Other hazards

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical nature

Soluble concentrate (SL) Propamocarb/Fosetyl 530:310 g/l

Hazardous components

R-phrase(s) according to EC directive 67/548/EEC Hazard statements according to Regulation (EC) No. 1907/2006

Name	CAS-No. /	Classification		Conc. [%]
	EC-No.	EC Directive 67/548/EEC	Regulation (EC) No 1272/2008	
Propamocarb	24579-73-5 607-406-2	Xi; R43	Skin Sens. 1, H317	47.32
Fosetyl	15845-66-6	Xi; R41	Eye Dam. 1, H318	27.68

Further information

For the full text of the R-phrases/ Hazard statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures		
General advice	Move out of dangerous area. Remove contaminated clothing immediately and dispose of safely.	
Inhalation	Move the victim to fresh air and keep at rest. If symptoms persist, call a physician.	
Skin contact	Wash off with soap and water. If symptoms persist, call a physician.	
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If eye irritation or redness persists, see an ophthalmologist.	

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Ingestion	Do NOT induce vomiting. Rinse mouth. Call a physician or poison control center immediately.	
4.2 Most important symptom	s and effects, both acute and delayed	
Symptoms	The following symptoms may occur:, Lethargy, Ataxia, Spasm, Local:, Sensitising effects	
4.3 Indication of any immediate medical attention and special treatment needed		
Risks	This product, although being a carbamate, is NOT a cholinesterase inhibitor.	
Treatment	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote. Contraindication: atropine. Gastric lavage is not normally required. However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate.	

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media	
Suitable	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable	High volume water jet
5.2 Special hazards arising from the substance or mixture	Dangerous gases are evolved in the event of a fire.
5.3 Advice for firefighters	
Special protective equipment for fire-fighters	In the event of fire, wear self-contained breathing apparatus.
Further information	Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Precautions	Use personal protective equipment. Avoid contact with spilled product or contaminated surfaces.
6.2 Environmental precautions	Do not allow to get into surface water, drains and ground water. If spillage enters drains leading to sewage works inform local water company immediately. If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060).
6.3 Methods and materials for	r containment and cleaning up
Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal.
Additional advice	Check also for any local site procedures.

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6.4 Reference to other	Information regarding safe handling, see section 7.
sections	Information regarding personal protective equipment, see section 8.
	Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling		
Advice on safe handling	No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Ensure adequate ventilation.	
Advice on protection against fire and explosion	No special precautions required.	
Hygiene measures	Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Shower or bathe at the end of working. Remove soiled clothing immediately and clean thoroughly before using again.	
7.2 Conditions for safe storage, including any incompatibilities		
Requirements for storage areas and containers	Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. Store in a place accessible by authorized persons only. Protect from freezing. Keep away from direct sunlight.	
Advice on common storage	Keep away from food, drink and animal feedingstuffs.	
Suitable materials	HDPE (high density polyethylene)	
7.3 Specific end uses	Refer to the label and/or leaflet.	

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Propamocarb	24579-73-5	1.1 mg/m3 (TWA)		OES BCS*

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

8.2 Exposure controls

Refer to COSHH assessment (Control of Substances Hazardous to Health (Amendment) Regulations 2004). Engineering controls should be used in preference to personal protective equipment wherever practicable. Refer also to COSHH Essentials.

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protectionRespiratory protection is not required under anticipated
circumstances of exposure.
Respiratory protection should only be used to control residual risk of
short duration activities, when all reasonably practicable steps have
been taken to reduce exposure at source e.g. containment and/or
local extract ventilation. Always follow respirator manufacturer's
instructions regarding wearing and maintenance.

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Hand protection	Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness of 0,4 mm). Wash when contaminated and dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.
Eye protection	Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).
Skin and body protection	Wear standard coveralls and Category 3 Type 4 suit. If there is a risk of significant exposure, consider a higher protective type suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic phy	sical and chemical properties
Form	Liquid
Colour	colourless to light yellow
Odour	odourless
рН	6.0 - 7.5 at 100 % (23 °C)
Flash point	> 120 °C at 1,013 hPa
Ignition temperature	300 °C
Density	ca. 1.12 g/cm³ at 20 °C
Water solubility	completely miscible
Partition coefficient: n- octanol/water	Propamocarb: log Pow: 0.84
	Fosetyl: log Pow: -0.70
Viscosity, kinematic	36.9 mm2/s at 40 °C
Surface tension	59 mN/m at 20 °C Determined as a 1% solution in distilled water.
Explosivity	Not explosive
9.2 Other information	Further safety related physical-chemical data are not known.

9.1 Information on basic physical and chemical properties

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	
Thermal decomposition	Stable under normal conditions.
10.2 Chemical stability	Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.

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10.4 Conditions to avoid	Extremes of temperature and direct sunlight.
10.5 Incompatible materials	Store only in the original container.
10.6 Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects	
Acute oral toxicity	LD50 (rat) > 2,000 mg/kg
Acute dermal toxicity	LD50 (rat) > 2,000 mg/kg
Skin irritation	No skin irritation (rabbit)
Eye irritation	No eye irritation (rabbit)
Sensitisation	Sensitising (mouse) OECD Test Guideline 429, local lymph node assay (LLNA)

Assessment repeated dose toxicity

Propamocarb did not cause specific target organ toxicity in experimental animal studies. Fosetyl Aluminium did not cause specific target organ toxicity in experimental animal studies.

Assessment Mutagenicity

Propamocarb was not mutagenic or genotoxic in a battery of in vitro and in vivo tests. Fosetyl Aluminium was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment Carcinogenicity

Propamocarb was not carcinogenic in lifetime feeding studies in rats and mice. Fosetyl Aluminium was not carcinogenic in lifetime feeding studies in rats and mice.

Assessment toxicity to reproduction

Propamocarb did not cause reproductive toxicity in a two-generation study in rats. Fosetyl Aluminium did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Propamocarb caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Propamocarb are related to maternal toxicity. Fosetyl Aluminium did not cause developmental toxicity in rats and rabbits.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	
Toxicity to fish	LC50 (Rainbow trout (Oncorhynchus mykiss)) > 98 mg/l Exposure time: 96 h
Toxicity to aquatic invertebrates	EC50 (Water flea (Daphnia magna)) > 97 mg/l Exposure time: 48 h
Toxicity to aquatic plants	EC50 (Pseudokirchneriella subcapitata) > 97 mg/l Exposure time: 72 h
12.2 Develotones and deared	ability

12.2 Persistence and degradability

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Biodegradability	Propamocarb: rapidly biodegradable Fosetyl Aluminium: rapidly biodegradable	
Кос	Propamocarb: Koc: 719 Fosetyl Aluminium: Koc: 0.1	
12.3 Bioaccumulative potential		
Bioaccumulation	Propamocarb: Does not bioaccumulate. Fosetyl Aluminium: Does not bioaccumulate.	
12.4 Mobility in soil		
Mobility in soil	Propamocarb: Slightly mobile in soils Fosetyl Aluminium: Highly mobile in soils	
12.5 Results of PBT and vPvB assessment		
PBT and vPvB assessment	Propamocarb: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB). Fosetyl: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).	
12.6 Other adverse effects		
Additional ecological information	No other effects to be mentioned.	

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product	In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant. Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).
Contaminated packaging	Small containers (< 10 l or < 10 kg) should be rinsed thoroughly using an integrated pressure rinsing device, or, by manually rinsing three times. Add washings to sprayer at time of filling. Dispose of empty and cleaned packaging safely. Large containers (> 25 l or > 25 kg) should not be rinsed or re-used for any other purpose. Return large containers to supplier. Follow advice on product label and/or leaflet.
Waste key for the unused product	020108 agrochemical waste containing dangerous substances

SECTION 14: TRANSPORT INFORMATION According to ADN/ADR/UK 'Carriage' Regulations/RID/IMDG/IATA not classified as dangerous

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This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

14.1 – 14.5 Not applicable.

14.6 Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No transport in bulk according to the IBC Code.

SECTION 15: REGULATORY INFORMATION

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

UK and Northern Ireland Regulatory References

This material may be subject to some or all of the following regulations (and any subsequent amendments). Users must ensure that any uses and restrictions as indicated on the label and/or leaflet are followed.

Transport

Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No 1348)

Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997 (SI 1997 No 2367) Air Navigation Dangerous Goods Regulations 2002 (SI 2002 No 2786)

Supply and Use

Chemical (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No 716) Chemical (Hazard Information and Packaging for Supply) (Northern Ireland) Regulations 2009 Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No 2677) EH40 Occupational Exposure Limits - Table 1 List of approved workplace exposure limits Control of Pesticide Regulations 1986 Dangerous Substances and Explosive Atmospheres Regulations 2002

Waste Treatment

Environmental Protection Act 1990, Part II Environmental Protection (Duty of Care) Regulations 1991 The Waste Management Licensing Regulations 1994 (as amended) Hazardous Waste Regulations 2005 (Replacing Special Waste Regulations 1996 as amended) Landfill Directive Regulation on Substances That Deplete the Ozone Layer 1994 (EEC/3093/94) Water Resources Act 1991 Anti-Pollution Works Regulations 1999

Further information

WHO-classification: III (Slightly hazardous)

15.2 Chemical Safety Assessment

A chemical safety assessment is not required.

SECTION 16: OTHER INFORMATION

R41 Risk of serious damage to eyes.

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R43 May cause sensitisation by skin contact.

Text of the hazard statements mentioned in Section 3

H317 May cause an allergic skin reaction.H318 Causes serious eye damage.

The above information is intended to give general health and safety guidance on the storage and

transport of the product. It is not intended to apply to the use of the product for which purposes the product label and any appropriate technical usage literature available should be consulted and any relevant licenses, consents or approvals complied with.

The requirements or recommendations of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given.

The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate.

No liability will be accepted for any injury, loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.

Reason for Revision: Safety Data Sheet according to Regulation (EU) No. 453/2010.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.