



**FICAM W**

Version 2 / GB  
102000025317

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Revision Date: 17.03.2016  
Print Date: 25.04.2016

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

**1.1 Product identifier**

**Trade name** FICAM W  
**Product code (UVP)** 80231598

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

**Use** Insecticide

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

**Supplier** Bayer Environmental Science  
230 Cambridge Science Park  
Milton Road  
Cambridge  
Cambridgeshire CB4 0WB  
United Kingdom

**Telephone** 00800-1214 9451  
**Telefax** +44(0)1223 426240  
**Responsible Department** Email: [ukinfo@bayercropscience.com](mailto: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.**

Acute toxicity: Category 2  
H300 Fatal if swallowed.

Acute toxicity: Category 2  
H330 Fatal if inhaled.

Acute aquatic toxicity: Category 1  
H400 Very toxic to aquatic life.

Chronic aquatic toxicity: Category 1  
H410 Very toxic to aquatic life with long lasting effects.

**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:**

- Bendiocarb

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**Signal word:** Danger**Hazard statements**

H300	Fatal if swallowed.
H330	Fatal if inhaled.
H410	Very toxic to aquatic life with long lasting effects.
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.
P284	Wear respiratory protection.
P308 + P311	IF exposed or concerned: Call a POISON CENTER/ doctor/ physician.
P501	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**

Dust may form explosive mixture in air.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures****Chemical nature**Wettable powder (WP)  
Bendiocarb 80,0 % w/w**Hazardous components**

Hazard statements according to Regulation (EC) No. 1272/2008

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification	Conc. [%]
		Regulation (EC) No 1272/2008	
Bendiocarb	22781-23-3 245-216-8	Acute Tox. 3, H331 Acute Tox. 3, H301 Acute Tox. 3, H311 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	80.00
Naphthalenesulfonic acid, butyl-, Me derivs, sodium salts	68909-83-1 272-716-3	Eye Irrit. 2, H319	> 1.00 – < 5.00
Naphthalene and alkyl naphthalene sulphonic acids formaldehyde condensate, sodium salt	68425-94-5	Skin Irrit. 2, H315 Eye Irrit. 2, H319	> 1.00 – < 5.00
Silica, amorphe	7631-86-9 231-545-4	Not classified	> 1.00



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**Further information**

For the full text of the H-Statements mentioned in this Section, see Section 16.

**SECTION 4: FIRST AID MEASURES**

**4.1 Description of first aid measures**

<b>General advice</b>	Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.
<b>Inhalation</b>	Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.
<b>Skin contact</b>	Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.
<b>Eye contact</b>	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. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Induce vomiting only, if: 1. patient is fully conscious, 2. medical aid is not readily available, 3. a significant amount (more than a mouthful) has been ingested and 4. time since ingestion is less than 1 hour. (Vomit should not get into the respiratory tract.)

**4.2 Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	Local.: The product causes irritation of eyes, skin and mucous membranes.  Systemic.: Bradycardia, sweating, Convulsions, Nausea, Lachrymation, Salivation, Vomiting, Diarrhoea, Miosis, Hypotension, Bronchial hypersecretion, Myoclonus, Respiratory paralysis, Somnolence, Coma, Respiratory failure, Hypothermia, Fibrillation, Spasm
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**4.3 Indication of any immediate medical attention and special treatment needed**

<b>Risks</b>	This product is a cholinesterase inhibitor carbamate.
<b>Treatment</b>	Systemic treatment: Initial treatment: symptomatic. In case of ingestion a gastric lavage within the first hour after ingestion and after intubation only with consecutive application of activated charcoal and sodium sulphate should be performed. In case of convulsions, a benzodiazepine (e.g. diazepam) should be given according to standard regimens. Keep respiratory tract clear. Oxygen or artificial respiration if needed. The following antidotes are generally accepted: atropin and oximes. Recovery is spontaneous and without sequelae.



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**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., In common with all other methyl carbamates, bendiocarb will liberate strongly lachrymatory and very toxic methyl isocyanate when heated above its decomposition temperature which for bendiocarb is > 125 deg C. Methyl isocyanate has a very low flash point and will be readily consumed in a fire. Since methyl isocyanate readily decomposes in contact with water, all decompositions are best extinguished with water.

**5.3 Advice for firefighters**

**Special protective equipment for firefighters** In the event of fire and/or explosion do not breathe fumes. 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.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures**

**Precautions** Avoid dust formation. Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment. Remove all sources of ignition.

**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 containment and cleaning up**

**Methods for cleaning up** Use mechanical handling equipment. Clean contaminated floors and objects thoroughly, observing environmental regulations. Collect and transfer the product into a properly labelled and tightly closed container.

**Additional advice** Check also for any local site procedures.

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

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**SECTION 7: HANDLING AND STORAGE****7.1 Precautions for safe handling**

<b>Advice on safe handling</b>	Avoid dust formation. Use only in area provided with appropriate exhaust ventilation.
<b>Advice on protection against fire and explosion</b>	Dust may form explosive mixture in air. Keep away from heat and sources of ignition. Take measures to prevent the build up of electrostatic charge.
<b>Hygiene measures</b>	Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

**7.2 Conditions for safe storage, including any incompatibilities**

<b>Requirements for storage areas and containers</b>	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. Keep away from direct sunlight.
<b>Advice on common storage</b>	Keep away from food, drink and animal feedingstuffs.

**7.3 Specific end use(s)** Refer to the label and/or leaflet.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Bendiocarb	22781-23-3	0.2 mg/m <sup>3</sup> (TWA)		OES BCS*
Silica, amorphe (Inhalable dust.)	7631-86-9	6 mg/m <sup>3</sup> (TWA)	12 2011	EH40 WEL
Silica, amorphe (Respirable dust.)	7631-86-9	2.4 mg/m <sup>3</sup> (TWA)	12 2011	EH40 WEL

\*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 protection** Wear a compressed air respirator (continuous flow) conforming to European norm EN14594 or EN14563-1 or equivalent or an organic gas and vapour filter mask (protection factor 20) conforming to EN136 Type A filter or equivalent. 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

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instructions regarding wearing and maintenance.

**Hand protection**

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Wash gloves when contaminated. 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.

Material	Nitrile rubber
Rate of permeability	> 480 min
Glove thickness	> 0.4 mm
Protective index	Class 6
Directive	Protective gloves complying with EN 374.

**Eye protection**

Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

**Skin and body protection**

Wear standard coveralls and Category 3 Type 5 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 physical and chemical properties**

<b>Form</b>	WP-SB: powder in water soluble film bags
<b>Colour</b>	beige
<b>Odour</b>	weak, characteristic
<b>Flammability (solid, gas)</b>	The product is not highly flammable.
<b>Minimum ignition energy</b>	< 3 mJ
<b>Lower explosion limit</b>	30 g/m <sup>3</sup>
<b>Dust explosion class</b>	St2 (Strongly explosible)
<b>Water solubility</b>	miscible
<b>Partition coefficient: n-octanol/water</b>	Bendiocarb: log Pow: 1.7 at 25 °C

**9.2 Other information**

Further safety related physical-chemical data are not known.



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**SECTION 10: STABILITY AND REACTIVITY**

**10.1 Reactivity**

**Thermal decomposition** 150 °C, Heating rate: 3 K/min, Decomposition energy: 450 KJ/kg  
120 °C, Heating rate: 0.05 K/min

**Self heating** not self-heating

**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.

**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) 50 mg/kg

**Acute inhalation toxicity** LC50 (Rat) 0.313 mg/l  
Exposure time: 6 h

**Acute dermal toxicity** LD50 (Rat) > 2,000 mg/kg

**Skin irritation** No skin irritation (Rabbit)

**Eye irritation** No eye irritation (Rabbit)

**Sensitisation** Non-sensitizing. (Guinea pig)  
OECD Test Guideline 406, Magnusson & Kligman test

**Assessment repeated dose toxicity**

Bendiocarb caused reversible cholinesterase inhibition without long term effects in animal studies.

**Assessment mutagenicity**

Bendiocarb was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

**Assessment carcinogenicity**

Bendiocarb was not carcinogenic in lifetime feeding studies in rats and mice.

**Assessment toxicity to reproduction**

Bendiocarb did not cause reproductive toxicity in a two-generation study in rats.

**Assessment developmental toxicity**

Bendiocarb did not cause developmental toxicity in rats and rabbits.



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**SECTION 12: ECOLOGICAL INFORMATION**

**12.1 Toxicity**

**Toxicity to fish** LC50 (Cyprinodon variegatus (sheepshead minnow)) 0.86 mg/l  
Exposure time: 96 h  
The value mentioned relates to the active ingredient bendiocarb.

**Toxicity to aquatic invertebrates** EC50 (Daphnia magna (Water flea)) 0.0377 mg/l  
Exposure time: 48 h  
The value mentioned relates to the active ingredient bendiocarb.

**Toxicity to aquatic plants** EC50 (Raphidocelis subcapitata (freshwater green alga)) 0.408 mg/l  
Exposure time: 48 h  
The value mentioned relates to the active ingredient bendiocarb.

**12.2 Persistence and degradability**

**Biodegradability** Bendiocarb:  
Not rapidly biodegradable

**Koc** Bendiocarb: Koc: 33

**12.3 Bioaccumulative potential**

**Bioaccumulation** Bendiocarb: Bioconcentration factor (BCF) 6.0  
Does not bioaccumulate.

**12.4 Mobility in soil**

**Mobility in soil** Bendiocarb: Mobile in soils

**12.5 Results of PBT and vPvB assessment**

**PBT and vPvB assessment** Bendiocarb: 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.

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**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.





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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**      **02 01 08\*** agrochemical waste containing dangerous substances

**SECTION 14: TRANSPORT INFORMATION**

**ADR/RID/ADN**

14.1 UN number	<b>2757</b>
14.2 Proper shipping name	CARBAMATE PESTICIDE, SOLID, TOXIC (BENDIOCARB MIXTURE)
14.3 Transport hazard class(es)	6.1
14.4 Packing group	II
14.5 Environm. Hazardous Mark	YES
Hazard no.	60
Tunnel Code	D/E

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

**IMDG**

14.1 UN number	<b>2757</b>
14.2 Proper shipping name	CARBAMATE PESTICIDE, SOLID, TOXIC (BENDIOCARB MIXTURE)
14.3 Transport hazard class(es)	6.1
14.4 Packing group	II
14.5 Marine pollutant	YES

**IATA**

14.1 UN number	<b>2757</b>
14.2 Proper shipping name	CARBAMATE PESTICIDE, SOLID, TOXIC (BENDIOCARB MIXTURE )
14.3 Transport hazard class(es)	6.1
14.4 Packing group	II
14.5 Environm. Hazardous Mark	NO

**UK 'Carriage' Regulations**

14.1 UN number	<b>2757</b>
14.2 Proper shipping name	CARBAMATE PESTICIDE, SOLID, TOXIC (BENDIOCARB MIXTURE)
14.3 Transport hazard class(es)	6.1
14.4 Packing group	II
14.5 Environm. Hazardous Mark	YES
Emergency action code	2X

**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 and the IBC Code**



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No transport in bulk according to the IBC Code.

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**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: II (Moderately hazardous)

**15.2 Chemical Safety Assessment**

A chemical safety assessment is not required.

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**SECTION 16: OTHER INFORMATION**

**Text of the hazard statements mentioned in Section 3**

H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.



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- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

**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 (ATE)
CAS-Nr.	Chemical Abstracts Service number
Conc.	Concentration
EC-No.	European community number
ECx	Effective concentration to x %
EH40 WEL	Worker Exposure Limit
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LCx	Lethal concentration to x %
LDx	Lethal dose to x %
LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.	Not otherwise specified
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SI	Statutory Instrument
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

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. 2015/830. The following sections have been revised: Section 2: Hazards Identification.

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

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



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