

Section A7
Annex Point IIIA XIII 3.4Ecotoxicological Profile Including Environmental Fate and
Behaviour

A7.5.7 Effects on mammals

A7.5.7.1 Direct and/or indirect exposure to mammals – further tests

A7.5.7.1.3 Effects on reproduction

7.5.7.1.3 Effects on reproduction

	JUSTIFICATION FOR NON-SUBMISSION OF DATA	Official use only
Other existing data []	Technically not feasible [] Scientifically unjustified [✓]	
Limited exposure []	Other justification []	
Detailed justification:	Sufficient laboratory studies are available on a range of mammals. This study should therefore not be needed.	
Undertaking of intended data submission []		

EVALUATION BY COMPETENT AUTHORITIES

EVALUATION BY COMPETENT AUTHORITIES	
EVALUATION BY RAPPORTEUR MEMBER STATE	
Date	24/01/2007
Evaluation of applicant's justification	The UK CA agrees that further studies on mammals should not be required, as the use pattern for bendiocarb (i.e. as surface spray rather than granule bait) removes risk for mammals. Applicant's justification is acceptable.
Conclusion	Applicant's justification is acceptable.
Remarks	
COMMENTS FROM OTHER MEMBER STATE <i>(specify)</i>	
Date	<i>Give date of comments submitted</i>
Evaluation of applicant's justification	<i>Discuss if deviating from view of rapporteur member state</i>
Conclusion	<i>Discuss if deviating from view of rapporteur member state</i>
Remarks	

Section 7

Annex Point IIA VII.7.8 and
IIIA XII.4, XIII.5Ecotoxicological Profile Including Environmental Fate and
BehaviourA7.6 Summary of ecotoxicological effects and fate and behaviour in
the environment**7.6 Summary of ecotoxicological effects and fate and behaviour in the environment****Summary of fate and behaviour in water:**

In water, bendiocarb is hydrolysed rapidly in alkaline media and more slowly in neutral and acidic media. The results of a laboratory hydrolysis study at 25°C indicated DT₅₀ values ranging from 46.5 days at pH 5, to 48.1 hours at pH 7 to 43.8 minutes at pH 9 [Campbell, 1988 (A90220)]. Hence, the rate of degradation of bendiocarb is pH dependent, with slower breakdown under acidic conditions. At pH 5, the main hydrolysis product was pyrogallol, but at pH 7 and pH 9, NC 7312 (2,2-dimethyl-1,3-benzodioxol-4-ol) predominated.

Bendiocarb is not readily degraded through photolysis in aqueous systems. The photolysis of bendiocarb in aqueous systems was investigated in a laboratory study [Brehm, 1988a (A90107) & 1992 (A90108)] at pH 5 (to minimize hydrolysis) under artificial light conditions (light intensity was increased by 2.5 compared to that of natural sunlight in summer at moderate northern latitudes). The rate of photochemical degradation of bendiocarb (corrected for dark reactions) can be described by first order kinetics with a half-life of 37.3 days (187 days extrapolated to natural sunlight). However, this half-life of 187 days differs by a factor of ca. 7 to the values obtained with the use of the quantum yield (using computer program GCSOLAR). These half-life values strongly depend on the season and latitude (1070 – 20000 days) due to the variation of sunlight intensity in the UV-B range (< 310 nm) where bendiocarb absorbs sunlight. The conversion products found in the photolysis solutions were NC 7312 (maximum amount ~ 12 %) and various polar products that could not be isolated or identified separately (maximum amount ~ 40 %).

An activated sludge study was carried out to determine the effects of an activated sludge process (ASP) on bendiocarb in 48 hour shake flask assays using ¹⁴C-bendiocarb (radiolabelled in the heterocyclic ring) added to mixed liquors from both control (unacclimated) and continuously treated (acclimated) ASP reactors [Doebbler, 1978 (A90198)]. Only limited uptake into the biomass (maximum 15 % with acclimated sludge at 1 ppm) and only minimal metabolism to CO₂ (2 % in 48 hours at 1 ppm for acclimated sludge) took place. Based upon the results of this study, it can be concluded that bendiocarb is not readily biodegradable. The bendiocarb was largely present in the effluent (liquid phase) and would pass through an activated sludge process in the effluent. Analysis of the effluent indicated that the ¹⁴C was present as a metabolite, rather than the parent compound bendiocarb. It was suggested that this metabolite was most likely to be NC 7312.

The degradation of ¹⁴C-bendiocarb (labelled in the phenyl ring) was studied in a sandy loam sediment/water system over a 30 day period under aerobic conditions, with the pH of the water phase ranging between 3.4 and 7.1 through the study [Purser, 1997a (A92628)]. Over the incubation period a slow transfer of radioactive material to the sediment was observed with the surface water containing 31 to 35 % of applied radioactivity after 30 days. The radioactivity extracted from the sediment increased from ca 3 % of applied radioactivity at day 0 to 7 to 13 % after 30 days. Bendiocarb degraded very rapidly with a DT₅₀ of about 9 days at 20°C. Degradation resulted in the formation of volatile degradation products, unextractable sediment residues, NC 7312 (maximum 28-32 % of applied radioactivity in the water phase after 7 days and maximum 17-18 % of applied radioactivity in the sediment after 2-3 days) and polar metabolites.

The fate of ¹⁴C-bendiocarb (radiolabelled in the heterocycling ring) in model aquatic systems (microcosms) was investigated [Arnold, 1984 (A90212)]. Three different test systems were investigated: stream water with sediment, stream water without sediment and stream water that had been filtered to remove suspended particulate matter. In all the test systems, bendiocarb was rapidly hydrolysed (99 % in 2 days) resulting in the formation of NC 7312 which was further degraded. The rate of degradation of NC 7312 was influenced by microcosm type and was greatly accelerated in the presence of sediment. The half-lives of NC 7312 were: <2 weeks (with sediment), 6 weeks (unfiltered water) and an estimated 10 weeks (filtered water). The increased rate of CO₂ evolution in the sediment/water microcosms (35 % in 8 weeks) compared with that in both non-filtered and filtered water alone (24 % and 7 %, respectively)

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suggested that microbial activity was enhanced in the presence of sediment. It was therefore concluded that bendiocarb is rapidly degraded in aquatic systems and biodegradation rates are likely to be enhanced in situations where sediment is present.

Under anaerobic conditions, ^{14}C -bendiocarb (labelled in the phenyl ring) was rapidly degraded in a sandy loam sediment and associated water [Purser, 1997b (A92629)]. The DT_{50} was determined to be 4.65-4.66 days at 20°C . The major metabolite was NC 7312 (2,2-dimethyl-1,3-benzodioxol-4-ol) which reached maximum mean concentrations of 86.8 % in the associated water after 30 days and 16 % in the sediment after 120 days. In addition to NC 7312, polar metabolites, an unextracted residue and volatile products (the majority of which were present as carbon dioxide) were observed.

Summary of fate and behaviour in soil:

The degradation of ^{14}C -bendiocarb (labelled in the phenyl ring) in soil was investigated under laboratory conditions using a sandy loam soil (Abington) and a silty clay loam soil (Terling) incubated in the dark at 25°C and 40 % soil moisture holding capacity [Mackenzie & Allen, 1990 (A90228)]. Soil samples were treated with ^{14}C -ring labelled bendiocarb at a rate of 3.71 kg as/ha. Bendiocarb was rapidly degraded in both soil types. The DT_{50} and DT_{90} values for bendiocarb were calculated to be 1.1 days and 5.5 days in the sandy loam soil and 3.5 days and 11.7 days in the silty clay loam soil. The primary degradation product was NC 7312. However, this component represented up to only 2 % of applied radioactivity. Subsequent rapid breakdown resulted in the formation of the natural product pyrogallol together with other unidentified polar metabolites, each of which accounted for less than 0.5 % of applied radioactivity. Further degradation resulted in the formation of unextractable residues (ca. 45 % after 26 weeks) and approximately 55 % of the applied radioactivity was mineralised to carbon dioxide in the same period.

The degradation of bendiocarb in aerobic soils was also investigated in a laboratory volatilization study [Allen, 1989 (A90224)]. Samples of a sandy soil (< 1.5 % organic matter) at 20 % and 60 % moisture holding capacity were treated with ^{14}C -bendiocarb (labelled in the phenyl ring) at a rate equivalent to 3.6 kg as/ha. Less than 1 % of applied radioactivity was evolved as ^{14}C -bendiocarb or its degradation products from soil regardless of incubation conditions, indicating that volatilization does not constitute a major dissipation pathway. Bendiocarb was rapidly degraded in soil with DT_{50} values ranging from 0.5 to 5.0 days. The rates of degradation were influenced by temperature and soil moisture, and were faster at the higher temperature and moisture contents. Air-flow rate did not appear to have any effect on degradation. The principal degradation product resulting from soil degradation of the parent compound was NC 7312, which was accounted for a maximum of 14 % of the applied radioactivity on day 0. NC 7312 was further degraded into pyrogallol (maximum 2 % of applied radioactivity on day 1), bound residues (maximum 55-65 % of applied radioactivity on day 21) and CO_2 (maximum 20-35 % of applied radioactivity on day 21).

The photodegradation of ^{14}C -bendiocarb (labelled in the phenyl ring) on soil surfaces has been investigated in a laboratory study [Brehm, 1988b (A90109)]. Assuming first order kinetics for a two compartment model, bendiocarb has a half-life of 7.8 hours when exposed to light equivalent to natural sunlight. The photolysis products (shown to be neither bendiocarb nor NC 7312) are various highly polar products (whose individual amounts are too low for isolation and identification) and strongly bound to the soil and not readily extracted. The small amounts of volatile material produced (5.2 %) are considered to be either carbon dioxide or formic acid as they are trapped in basic solution.

The soil sorption of ^{14}C -bendiocarb (labelled in the heterocycling ring) was investigated in an adsorption/desorption study with four soil types [Allen, 1988 (A90217)]. ^{14}C -bendiocarb was hydrolysed during the course of the studies to NC 7312 (over 80 % of the radioactivity was present as NC 7312 at the end of the adsorption period for the sand soil). Values for the Freundlich adsorption coefficients k_f and $1/n$ were 0.14 and 0.96 for a sand soil (Icklingham), 0.60 and 0.93 for a sandy Loam (Abington), 1.14 and 0.92 for a silty clay loam (Terling) and 1.35 and 0.93 for a clay soil (Shelford) respectively. The strength of adsorption of radioactivity to soil increased with soil organic matter content. For example the adsorption coefficient (k_f) for Shelford (4.9 % organic carbon) was approximately 10 times greater than

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that for Icklingham (0.35 % organic carbon). The K_{oc} values ranged from 27.6 to 39.7 mL/g depending on the soil type.

Mobility studies are not required as appropriate PEC modelling indicates no leaching to groundwater (see Environmental Risk Assessment).

Summary of fate and behaviour in air:

The half-life of bendiocarb in air has been estimated according to the incremental method of Atkinson [Brehm, 1992b (A90133)]. A maximum DT₅₀ of 13.2 hours was calculated for the photo-oxidative degradation of bendiocarb in air.

Summary of effects on aquatic organisms:*Acute aquatic toxicity*

Acute toxicity studies have been conducted with bendiocarb in various aquatic species. The results are as follows:

Test organism	Type of system	Results (mg as/L)	Reference
Sheepshead minnow (<i>Cyprinodon variegatus</i>)	96-h flow through	LC ₅₀ : 0.86	[REDACTED] 1989a (A90622)
Daphnids (<i>Daphnia magna</i>)	48-h flow through	EC ₅₀ : 0.0377	Gries, 2005a (M-259123-01-1)
Green algae (<i>Pseudokirchneriella subcapitata</i>)	72-h static	E _r C ₅₀ : 0.408	Gries, 2005b (M-259108-01-1)

Even though no exposure to the marine environment is anticipated with bendiocarb, the GLP study on sheepshead minnow [REDACTED] 1989a (A90622)], conducted under flow through conditions (with measurement of concentrations) has been considered as key study. The results of the non key studies, not GLP, conducted on bluegill sunfish [REDACTED] 1978a (A90405)] and rainbow trout [REDACTED] 1978b (A90410)] under flow through conditions (with no measurement of concentrations) show the same level of toxicity to freshwater fish species (1.65 and 1.55 mg/L, respectively) and therefore support the LC₅₀ value (0.86 mg/L, based on mean measured concentrations) obtained on sheepshead minnow.

A 48 hour study was conducted with technical bendiocarb to determine its toxicity to *Daphnia magna* under flow-through conditions [Gries, 2005a (M-259123-01-1)]. Based on the observed immobilisation, the 48-hour NOEC is 0.0148 mg/L. The 48-hour EC₅₀ was determined as 0.0377 mg/L (based on mean measured concentrations).

A 72 hour study was conducted with bendiocarb technical to determine its toxicity to *Pseudokirchneriella subcapitata* [Gries, 2005b (M-259108-01-1)]. Based on geometric mean measured concentrations, the NOEC (0 to 48 hours, growth rate) was 0.087 mg/L. The 0 to 48 hours E_rC₅₀ was 0.408 mg/L.

Bendiocarb is very toxic to aquatic organisms and therefore classified as N (Dangerous for the environment), R50/53 (Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment).

A study conducted in rainbow trout (*Salmo gairdneri*) under renewal conditions with the major product of hydrolysis of bendiocarb, NC 7312, indicated an LC₅₀ (96 h) of 10.0 mg NC 7312/L (based on nominal concentrations) [REDACTED] 1982 (A90492)]. This compound was also tested for its acute toxicity to *Daphnia magna* under static conditions [Williams & Thompson, 1982 (A90493)]. The EC₅₀ (48 h) value (based on nominal concentrations) obtained was 25.4 mg NC7312/L.

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the environment*Inhibition to microbiological activity*

The toxicity of bendiocarb to bacteria has been investigated in an activated sludge study where the respiration rate of the activated sludge was measured after a contact time of 3 hours [Bruns, 2005 (MO-05-010465)]. Bendiocarb showed 57.1 % respiration inhibition of the activated sludge at a test item concentration of 10000 mg/L. The EC₅₀ obtained was 845 mg/L.

Bioconcentration

A study conducted in bluegill sunfish (*Lepomis macrochirus*) indicated that bendiocarb would not bioconcentrate [■ 1988 (A90219)]. The overall (whole body) BCF was 6.0x. Rapid elimination of ¹⁴C-bendiocarb residues occurred during depuration. Following the transfer of fish from the exposure vessel to freshwater, more than 89 % of the radioactivity was eliminated from the whole fish in one day and >97 % in three days.

Effects on reproduction and growth rate on an appropriate species of fish

A study was conducted with bendiocarb to investigate its toxicity to rainbow trout embryos and larvae [■ 1989b (A90214)]. Rainbow trout (*Salmo gairdneri*) embryos and larvae were continuously exposed for 78 days (30 post swim up exposure) to nominal bendiocarb concentrations ranging from 0.047 to 0.75 mg/L.

The most sensitive indicator of the toxicity of bendiocarb to the rainbow trout was larval growth expressed as length. Survival of rainbow trout larvae in the highest mean measured test concentration (0.50 mg/L) at test termination was significantly lower than the survival of control organisms. At test termination, the mean total length of larvae exposed to the two highest mean measured concentrations of bendiocarb tested (0.50 and 0.17 mg/L) were significantly reduced as compared to the length of the control larvae. Effects of bendiocarb exposure were not observed at the three lowest concentrations tested. The NOEC of bendiocarb for rainbow trout embryos and larvae was established at 0.07 mg/L.

Effects on reproduction and growth rate with an appropriate invertebrate species

The effects of bendiocarb on the survival, reproduction and growth of the freshwater invertebrate cladoceran *Daphnia magna* were determined in a 21-day flow-through study [Smith *et al.*, 1990 (A90226)]. The NOEC (reproduction) was established at 1.47 µg/L and the LOEC (reproduction) at 2.71 µg/L. Growth of the organisms (as determined by measurement of body length) was not significantly affected at a concentration of 10.05 µg/L. The NOEC (growth) was 10.05 µg/L and the LOEC > 10.05 µg/L. The LC₅₀ (21 d) (based on the measured total radioactivity) was > 10.05 µg/L.

Summary of effects on terrestrial organisms*Soil microorganisms*

The effect of bendiocarb on starch metabolism in a sandy loam soil has been investigated [Warner, 1978 (A90189)].

The amount of ¹⁴CO₂ evolved in 30 days from soils containing 5 and 50 mg/kg bendiocarb and ¹⁴C-starch was similar to that evolved from ¹⁴C-starch-treated soil alone. The total ¹⁴CO₂ evolved over 30 days was 30-35 % of the original radioactivity applied to the soils. The control soils consisting of sterile soil containing ¹⁴C-starch and aerobic soil only both yielded very low levels of ¹⁴CO₂ after 30 days. This indicated that the evolution of ¹⁴CO₂ results from the degradation of ¹⁴C-starch by aerobic microorganisms.

These results indicate that the application of bendiocarb at 5 and 50 mg/kg to sandy loam soil has no detectable effect on those micro-organisms responsible for starch metabolism.

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the environment*Earthworms*

The acute toxicity of bendiocarb to earthworms has been investigated in a study where adult *Eisenia fetida andrei* were exposed for 14 days in an artificial soil to the nominal concentrations of 0.1 to 1000 mg as/kg dry weight soil [Lechelt-Kunze, 2005 (MO-05-010333)].

The LC₅₀ (14 d) was 163 mg test item/kg dry weight soil. Related to weight alterations and symptoms, the NOEC was 0.32 mg test item/kg dry weight soil and the LOEC was 0.56 mg test item/kg dry weight soil.

Birds

As bendiocarb biocidal product (FICAM W) is not used as a bait, granule or powder, toxicity studies to birds were not required.

Honey bees and other beneficial arthropods

Bendiocarb is toxic to bees (on the label, Ficam W is to be used to control wasps and wild bees). However, the treated places are not visited by bees (ground, around buildings) and no application is carried out on plants and flower beds. Therefore, no exposure to bees is anticipated.

With regard to the contamination of bees by treated wasps nests, no exposure is anticipated because Pest Control Operators are taking the treated nets back and according to the label: "Action should be taken to prevent foraging bees gaining access to the treated bees nests preferably by removing the combs or blocking nest entrance".

Therefore, exposure (if any) to honey bees and other beneficial arthropods would in any case be extremely localised to the immediate vicinity of the treated areas. Consequently, on population level, no significant risk to honey bees and other beneficial arthropods is anticipated.

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EVALUATION BY COMPETENT AUTHORITIES

EVALUATION BY RAPPORTEUR MEMBER STATE

Date	25/02/2008
Comments	The above summary is accepted with all relevant points and conclusions presented in Document II-A.
Acceptability	Acceptable
Remarks	<p>The endpoints were originally accepted, however on evaluation, the UK CA in consultation with the Applicant adjusted the figures. The figure are correct in Document II A but the changes for document III are as follows:</p> <p>Inhibition to microbial activity – EC₅₀ should be 70.1 mg l⁻¹ not 845 mg l⁻¹ as quoted.</p> <p>Effects on reproduction and growth rate with an appropriate invertebrate species – the NOEC reproduction should be 0.882 µg l⁻¹ not 1.47 µg l⁻¹ as quoted.</p> <p>Earthworms – the LC₅₀ (14d) should be 188 mg a.s. kg⁻¹ dry weight soil not 163 mg a.s. kg⁻¹ dry weight soil as quoted.</p>

COMMENTS FROM ...

Date

Comments

Acceptability

Remarks

Section A8 – Measures Necessary to Protect Man, Animals and the Environment

A material safety data sheet prepared to EU guidelines contains adequate information on procedures to follow for handling, storing transporting and in cases of accident or emergency [Doc. M-263481-01-1].

8.1 Recommended methods and precautions concerning handling, use, storage, transport or fire:	
Precautions to be taken in handling and storing:	<p>Handling Advice on safe handling No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Avoid dust formation. Use only in area provided with appropriate exhaust ventilation. Advice on protection against fire and explosion During processing, dust may form explosive mixture in air.</p> <p>Storage Requirements for storage areas and containers Keep container tightly closed in a dry and well-ventilated place. Store in a place accessible by authorized persons only. Keep away from heat. Keep away from direct sunlight. Protect against moisture. Advice on common storage Keep away from food, drink and animal feedingstuffs. Storage stability Storage temperature 0 – 30°C Suitable materials Store in original container.</p>
Main Hazards	<p>Human health hazards: Harmful in contact with skin. Toxic by inhalation and if swallowed.</p> <p>Environmental hazards: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</p>
Exposure control/ Personal protection:	<p>Hygiene measures When using, do not eat, drink or smoke. Remove soiled clothing immediately. Remove soaked protective clothing immediately. Clean hands and face at work intervals and after work. Work in an adequately ventilated room.</p> <p>Personal protective equipment Respiratory Protection Wear respirator conforming to EN149FFP3 or EN140P3. 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.</p>

Section A8
Annex Point IIA VIII

Measures Necessary to Protect Man, Animals and the Environment

Transport:	<p>Hand Protection Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness 0.40 mm). Wash when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed. Wash hands always before eating, drinking, smoking or using the toilet.</p> <p>Eye protection Wear goggles conforming to EN166 (Field of Use 5 or equivalent).</p> <p>Skin and body protection Wear standard coverall and Type 5 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.</p> <p>ADR/RID/ADNR</p> <table><tr><td>UN-No</td><td>2757</td></tr><tr><td>Labels</td><td>6.1</td></tr><tr><td>Packaging group</td><td>II</td></tr><tr><td>Hazard no.</td><td>60</td></tr><tr><td>Description of the goods</td><td>UN 2757 CARBAMATE PESTICIDE, SOLID, TOXIC (BENDIOCARB)</td></tr></table> <p>IMDG</p> <table><tr><td>UN-No</td><td>2757</td></tr><tr><td>Class</td><td>6.1</td></tr><tr><td>Packaging group</td><td>II</td></tr><tr><td>EmS</td><td>F-A, S-A</td></tr><tr><td>Marine pollutant</td><td>Marine pollutant</td></tr><tr><td>Description of the goods</td><td>CARBAMATE PESTICIDE, SOLID, TOXIC (BENDIOCARB)</td></tr></table> <p>IATA</p> <table><tr><td>UN-No</td><td>2757</td></tr><tr><td>Class</td><td>6.1</td></tr><tr><td>Packaging group</td><td>II</td></tr><tr><td>Description of the goods</td><td>CARBAMATE PESTICIDE, SOLID, TOXIC (BENDIOCARB)</td></tr></table>	UN-No	2757	Labels	6.1	Packaging group	II	Hazard no.	60	Description of the goods	UN 2757 CARBAMATE PESTICIDE, SOLID, TOXIC (BENDIOCARB)	UN-No	2757	Class	6.1	Packaging group	II	EmS	F-A, S-A	Marine pollutant	Marine pollutant	Description of the goods	CARBAMATE PESTICIDE, SOLID, TOXIC (BENDIOCARB)	UN-No	2757	Class	6.1	Packaging group	II	Description of the goods	CARBAMATE PESTICIDE, SOLID, TOXIC (BENDIOCARB)
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Packaging group	II																														
Description of the goods	CARBAMATE PESTICIDE, SOLID, TOXIC (BENDIOCARB)																														
Flash Point:	Ignition temperature > 401°C, does not ignite.																														
Extinguishing Media:	Water, alcohol-resistant foam, dry chemical, CO ₂ .																														
Special Fire fighting Procedures:	None beyond normal fire-fighting measures.																														
Usual Fire and Explosion Hazards:	Dangerous gases (i.e. ammoniac, carbon monoxide).																														
Reactivity Data:	None known.																														

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8.2	In case of fire, nature of reaction products, combustion gases etc.:	
8.3	Emergency measures in case of an accident First Aid Measures: General advice: Remove contaminated clothing immediately and dispose of safely. Inhalation: Move the patient to fresh air and keep at rest. Seek medical advice immediately. Ingestion: Induce vomiting if patient is fully conscious, time since ingestion is less than 30 minutes and medical aid is not readily available (Vomit should not get into the respiratory tract). Wash out mouth with water. Seek URGENT medical advice. Skin contact: Wash off immediately with soap and plenty of water. Seek medical advice immediately. Eye contact: In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Emergency measures to protect the environment:	
8.4	Possibility of destruction or decontamination following release in or on the following: (a) Air (b) Water, including drinking water (c) Soil Dispose of by incineration in an authorised special waste incineration plant. Comply with local legislation. For larger quantities contact manufacturer. Waste key for the unused product: 020108 agrochemical waste containing dangerous substances. For decontamination measures following accidental release, each of the environmental compartments are considered as follows: a) Air: Significant contamination of air is unlikely to occur under conditions of normal use. b) Water: Significant contamination of water is unlikely to occur under conditions of normal use. c) Soil: Significant contamination of soil is unlikely to occur under conditions of normal use.	

Section A8
Annex Point IIA VIII

Measures Necessary to Protect Man, Animals and the Environment

8.5	Procedures for waste management of the active substance for industry or professional users, e.g.: possibility of re-use or recycling, neutralisation, conditions for controlled discharge and incineration	
Product disposal:	In accordance with current regulations may be taken to waste disposal site or incineration plant, after consultation with site operator and/or with the responsible authority.	
Container disposal:	Rinse empty containers and dispose of them through the ADIVALOR collection organization or another specific collection system. Smaller packaging (consumer products) can also be disposed of through the cost-free Dual Collection System (Green Dot).	
Waste key for the unused product:	020108 agrochemical waste containing dangerous substances.	
8.6	Observations on undesirable or unintended side-effects, e.g. on beneficial or other non-target organisms	
	Refer to DocIIIA Section A7	
8.7	Identification of any substances falling within the scope of List I or List II of the Annex to Directive 80/68/EEC on the protection of ground water against pollution caused by certain dangerous substances	
	Bendiocarb falls within List II (biocide) of the Annex to Directive 80/68/EEC on the protection of ground water against pollution caused by certain dangerous substances.	

EVALUATION BY COMPETENT AUTHORITIES**EVALUATION BY RAPPORTEUR MEMBER STATE**

Date	18/01/08
Materials and methods	Not applicable.
Conclusion	Not applicable.
Reliability	Not applicable.
Acceptability	Not applicable.
Remarks	The UK CA has examined the recommendations put forward by the Applicant and has not found any parts that in light of the assessment of the hazards of the active substance require amendment. However it is the responsibility of the Applicant to comply with legislation relating to labelling for transport etc. Although the UK CA has not identified any specific errors in the text, it accepts no responsibility for the accuracy of any of the advice or labelling instructions given.

COMMENTS FROM ...

Date
Results and discussion
Conclusion
Reliability
Acceptability
Remarks

Section A9 – Classification and Labelling

Classification:	according to Annex I of Council Directive 67/548/EEC	
Hazard symbols:	T N	Toxic Dangerous for the environment
Risk phrases:	R21 R23/25 R50/53	Harmful in contact with skin. Toxic by inhalation and if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety phrases:	S 1/2 S22 S36/37 S45 S60 S61	Keep locked up and out of the reach of children. Do not breathe dust. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/safety data sheets.