

Section A8	Measures necessary to protect man, animals and the environment	
		Official use only
	<p><i>The information supplied in Annex A.8 should at least meet the requirements of the Safety Data Sheets Directive. The Safety Data Sheets should reflect the contents of Annex B where applicable.</i></p> <p>Please refer to the Safety Date Sheet attached at the end of this document.</p>	
Subsection (Annex Point)		
8.1	Recommended methods and precautions concerning handling, use, storage, transport or fire (IIA8.1)	
8.1.0 Methods and precautions concerning placing on the market	<p>Exposure Guidelines None established.</p> <p>Engineering Controls Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.</p> <p>Respiratory Protection For most conditions, no respiratory protection should be needed; however, in dusty atmospheres, use an approved particulate respirator. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.</p> <p>Hand/Skin Protection Wear clean, long-sleeved, body-covering clothing. When prolonged or frequently repeated contact may occur, a glove is recommended to prevent contact with the solid material. Examples of preferred glove barrier materials include: Nitrile. Neoprene. Polyvinyl chloride ("PVC" or "vinyl").</p> <p>NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all requisite workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), as well as the instructions/specifications provided by the glove supplier.</p> <p>For emergency conditions: Use protective clothing impervious to this material. Selection of specific items will depend on operation.</p> <p>Eye/Face Protection Safety glasses should be sufficient for most operations; however, for dusty operations wear chemical goggles.</p>	
8.1.1 Methods and	Handling Use good personal hygiene. Do not consume or store food in the	

Section A8	Measures necessary to protect man, animals and the environment	
		Official use only
precautions concerning production, handling and use of the active substance and its formulations	work area. Wash hands and exposed skin before eating, drinking or smoking and after work.	
8.1.2 Methods and precautions concerning storage of the active substance and its formulations	Storage Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilisers. Keep out of reach of children	
8.1.3 Methods and precautions concerning transport of the active substance and its formulations	Sample shipment not allowed by mail. Product is not classified for any mode of transportation.	
8.1.4 Methods and precautions concerning fire of the active substance and its formulations	Extinguishing Media Water fog or fine spray. Carbon dioxide. Dry chemical powder. Foam. Protection of Firefighters Wear protective clothing and use self-contained breathing apparatus. Additional Information Keep containers cool by spraying with water. Contain runoff to prevent entry into water or drainage systems.	
8.2	In case of fire, nature of reaction products, combustion gases, etc. (IIA8.2)	
	Hazardous Combustion Products During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/ or irritating.	
8.3	Emergency measures in case of an accident (IIA8.3)	
8.3.1 Specific treatment in case of an accident, e.g. first-aid measures, antidotes, medical treatment if available	Never give fluids or induce vomiting if patient is unconscious or is having convulsions. Ingestion Do not induce vomiting. Call a physician. The decision of whether to induce vomiting or not should be made by a physician. Eye Contact Flush eyes thoroughly with water for several minutes. Remove contact lenses after initial 1-2 minutes and continue flushing for	

Section A8	Measures necessary to protect man, animals and the environment	
		Official use only
	<p>several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.</p> <p>Skin Contact Wash off in flowing water or shower, use soap if available.</p> <p>Inhalation Remove to fresh air. Consult a physician.</p> <p>Note to Physician No specific antidote. Supportive care. Treatment based on judgement of physician in response to symptoms of patient.</p>	
8.3.2 Emergency measures to protect the environment	<p>Personal Precautions Wear appropriate safety clothing and eye/face protection (see Section 8).</p> <p>Environmental Precautions Do not wash into sewers or into any body of water. Advise water authority if spillage has entered water course or drainage system.</p> <p>Methods of Cleaning Up Collect all waste material and place in closable marked containers. For large spills, barricade area and consult manufacturer. If further assistance is required, telephone the emergency contact number.</p>	
8.4	<p>Possibility of destruction or decontamination following release in or on the following: (a) Air; (b) Water, including drinking water; (c) Soil (IIA8.4)</p> <p>DISPOSAL CONSIDERATIONS Very toxic to aquatic organisms. Do not contaminate ponds, waterways or ditches with chemical or used container. Wash out thoroughly. Container and washings must be disposed of safely and in accordance with applicable regulations. The preferred options are to send to licensed reclaimer or to permitted incinerators. Do not re-use container for any purpose.</p>	
8.4.1 Possibility of destruction or decontamination following release in the <u>air</u>	<p>Spinosyn A and D have a respective vapour pressure of $3.0 \cdot 10^{-8}$ Pa and $2.0 \cdot 10^{-8}$ Pa, and a Henry's law constant of $1.89 \cdot 10^{-7}$ Pa·m³·mol⁻¹ and $2.32 \cdot 10^{-5}$ Pa·m³·mol⁻¹ respectively all of which indicate an extremely low likelihood of volatilization into the atmosphere. Estimated photochemical oxidation half-lives for reaction with hydroxyl radicals and ozone are extremely short (<1 hr) for both spinosyn A and D respectively. Based on the information submitted it is considered that significant volatilisation of spinosyn A or D is <u>unlikely to occur</u>. However, should they volatilise, then the compounds will degrade quickly.</p>	

Section A8	Measures necessary to protect man, animals and the environment	
		Official use only
8.4.2 Possibility of destruction or decontamination following release in <u>water</u> , including drinking water	<p>Environmental Precautions Do not wash into sewers or into any body of water. Advise water authority if spillage has entered water course or drainage system.</p> <p>Methods of Cleaning Up Collect all waste material and place in closable marked containers. For large spills, barricade area and consult manufacturer. If further assistance is required, telephone the emergency contact number.</p> <p>Washings from spray equipment can be disposed of by pouring them onto waste ground where any remaining residues will degrade quickly on the soil due to the effect of sunlight with DT50 values in the range <0.5 to 6 days (see section A.7.2). Used-up granules are to be disposed via the normal household refuse or scattered onto waste ground where the effect of light will cause rapid degradation. .</p>	
8.4.3 Possibility of destruction or decontamination following release in or on <u>soil</u>	<p>Environmental Precautions Do not wash into sewers or into any body of water. Advise water authority if spillage has entered water course or drainage system.</p> <p>Methods of Cleaning Up Collect all waste material and place in closable marked containers. For large spills, barricade area and consult manufacturer. If further assistance is required, telephone the emergency contact number.</p> <p>Spinosad residues in soil will degrade quickly due to the effect of sunlight with DT50 values in the range <0.5 to 6 days (see section A.7.2).</p>	
8.5	<p>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 (IIA8.5)</p> <p><i>Specify procedures for industrial/professional and where relevant for general public areas for the active substance and its formulation . Then specify the possibilities of reuse, recycling, neutralisation and disposal</i></p> <p><i>Information necessary for safe disposal including treated material must be given. If preliminary treatment of the waste is necessary, information about this must also be given.</i></p> <p>For the formulation please refer to Document IIIB.8.</p>	
8.5.1 Possibility of re-use or recycling	There is no possibility of re-cycling the fly bait because once the active substance is spent, the bait becomes inactive and needs to be replaced if the fly infestation continues.	
8.5.2 Possibility of neutralisation of effects	Spinosad is used as a granular fly bait product. After its use, the product is swept up and disposed of with normal household refuse. There is no possibility to neutralize the effects.	
8.5.3 Conditions for	The waste generated from the use of the Spinosad Fly Bait product is	

Section A8	Measures necessary to protect man, animals and the environment	
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controlled discharge including leachate qualities on disposal	<p>disposed of via the normal household refuse.</p> <p>If the granules accidentally ended up in the manure (ie. Spillage of the tray and incorporation of the granules into the animal fecal droppings) and subsequently got spread onto a field, the impact of leachates from the manure containing spinosad would be expected to be negligible because of the rapid degradation of spinosad outdoors under the effect of sunlight and the strong sorption of spinosad to organic matter, making residues immobile in soil.</p> <p>Furthermore, any polar metabolites forming from the photolytic degradation of spinosad residues would have no toxicological impact on the environment.</p>	
8.5.4 Conditions for controlled incineration	<p>DISPOSAL CONSIDERATIONS</p> <p>Very toxic to aquatic organisms. Do not contaminate ponds, waterways or ditches with chemical or used container. Wash out thoroughly. Container and washings must be disposed of safely and in accordance with applicable regulations. The preferred options are to send to licensed reclaimer or to permitted incinerators. Do not re-use container for any purpose.</p>	
8.6	Observations on undesirable or unintended side-effects, e.g. on beneficial and other non-target organisms (IIA8.6)	
	<p>Spinosad is used in a fly bait product in animal stables for indoor use.</p> <p>Not applicable to the Spinosad Fly Bait. Due to the indoor application of the product in animal stables there are no undesirable or unintended side effects for vertebrates, or wildlife, or the environment.</p> <p>The spinosad fly bait contains denatonium benzoate, a bittering agent, to prevent accidental uptake by humans.</p>	
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 groundwater against pollution caused by certain dangerous substances (IIA8.7)	
	Spinosad does not fall within the scope of List I or List II of the Annex To Directive 80/68/EEC.	

	Evaluation by Competent Authorities	
	<i>Use separate "evaluation boxes" to provide transparency as to the comments and views submitted</i>	
	EVALUATION BY RAPPORTEUR MEMBER STATE	
Date	12 January 2007	
Evaluation of applicant's justification	section 8.6. Exposure to vertebrates is considered relevant in case of accidental uptake of fly bait by birds or mammals that may be present in the stables. Exposure of the terrestrial and aquatic environment may occur because of indirect exposure after application of manure to agricultural soil. These exposure routes are included in the risk assessment as performed by RMS (see Doc IIB and Doc IIC).	
Conclusion	No comments	
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		

MASTER SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: **TECHNICAL SPINOSAD**

LV70: 50201

Issue Date: April 99

Ref: CDF12

Revised: June 04 (Section(s) 3, 5, 8, 11-13, 15 & 16)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Dangerous components (see section 16 for complete R-phrases):

Spinosyn A and >85 % N; R50/53

Spinosyn D

3. HAZARDS IDENTIFICATION

Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

4. FIRST-AID MEASURES

Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

Ingestion

Do not induce vomiting. Call a physician. The decision of whether to induce vomiting or not should be made by a physician.

Eye Contact

Flush eyes thoroughly with water for several minutes. Remove contact lenses after initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Skin Contact

Wash off in flowing water or shower, use soap if available.

Inhalation

Remove to fresh air. Consult a physician.

Note to Physician

No specific antidote. Supportive care. Treatment based on judgement of physician in response to symptoms of patient.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Water fog or fine spray. Carbon dioxide. Dry chemical powder. Foam.

Hazardous Combustion Products

During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/ or irritating.

Protection of Firefighters

Wear protective clothing and use self-contained breathing apparatus.

Additional Information

Keep containers cool by spraying with water. Contain runoff to prevent entry into water or drainage systems.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Wear appropriate safety clothing and eye/face protection (see Section 8).

Environmental Precautions

Do not wash into sewers or into any body of water. Advise water authority if spillage has entered water course or drainage system.

Methods of Cleaning Up

Collect all waste material and place in closable marked containers. For large spills, barricade area and consult manufacturer. If further assistance is required, telephone the emergency contact number.

7. HANDLING AND STORAGE

Handling

Use good personal hygiene. Do not consume or store food in the work area. Wash hands and exposed skin before eating, drinking or smoking and after work.

Storage

Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilisers. Keep out of reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

None established.

Engineering Controls

Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

Respiratory Protection

For most conditions, no respiratory protection should be needed; however, in dusty atmospheres, use an approved particulate respirator. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Hand/Skin Protection

Wear clean, long-sleeved, body-covering clothing. When prolonged or frequently repeated contact may occur, a glove is recommended to prevent contact with the solid material. Examples of preferred glove barrier materials include: Nitrile. Neoprene. Polyvinyl chloride ("PVC" or "vinyl").

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all requisite workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), as well as the instructions/specifications provided by the glove supplier.

For emergency conditions: Use protective clothing impervious to this material. Selection of specific items will depend on operation.

Eye/Face Protection

Safety glasses should be sufficient for most operations; however, for dusty operations wear chemical goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: solid
Colour	: white to light tan
Odour	: none
Melting point/range	: >100 deg.C
Water solubility	: insoluble
Flash point	: not determined

10. STABILITY AND REACTIVITY**Chemical Stability**

Is stable under normal storage conditions.

Conditions to Avoid

None determined.

Materials to Avoid

Strong basic, acidic or oxidising materials.

Hazardous Decomposition Products

None under normal conditions of storage and use.

11. TOXICOLOGICAL INFORMATION**Ingestion**

Low toxicity if swallowed. The oral LD50 for rats is >2000mg/kg.

Skin Contact

The dermal LD50 for rabbits is >5000 mg/kg. Prolonged skin contact is unlikely to result in absorption of harmful amounts. Essentially nonirritating to the skin.

Sensitisation

Non-sensitising to guinea pig skin.

Eye Contact

May cause slight temporary eye irritation.

Inhalation

The LC50 for inhalation in rats is >5.18 mg/L. No adverse effects anticipated by this route of exposure incidental to proper handling.

Additional Information

Not carcinogenic. Not mutagenic. Not toxic for reproduction.

12. ECOLOGICAL INFORMATION**Persistence and Degradability**

Spinosyn A:

Half-life in soils is dependent on soil type and conditions and is approximately 9-17 days.

Spinosyn D:

Half-life in soils is dependent on soil type and conditions and is approximately 14 days.

Aquatic Toxicity

Acute LC50 for rainbow trout (*Onchorynchus mykiss*) is 30 mg/L.

Acute LC50 for bluegill (*Lepomis macrochirus*) is 5.9 mg/L.

Acute LC50 for common carp (*Cyprinus carpio*) is 4.99 mg/L.

Acute EC50 for water flea *Daphnia magna* is 92.7 mg/L.

Algal toxicity EC50 for green algae is 106mg/L.

Growth inhibition (72hIC50) for marine diatom *Skeletonema costatum* is <1 mg/L.

Growth inhibition EC50 in diatom (*Navicula* sp.) is <1 mg/L.

Avian Toxicity

Acute oral LD50 for bobwhite (*Colinus virginianus*) is >2000mg/kg.

Acute oral LD50 for mallard duck is >2000mg/kg.

Additional Information

LD50 for bees is 0.05 microgram/bee. LD50 for earthworms is >970mg/kg.

13. DISPOSAL CONSIDERATIONS

Very toxic to aquatic organisms. Do not contaminate ponds, waterways or ditches with chemical or used container. Wash out thoroughly. Container and washings must be disposed of safely and in accordance with applicable regulations. The preferred options are to send to licensed reclaimer or to permitted incinerators. Do not re-use container for any

purpose.

14. TRANSPORT INFORMATION

Sample shipment not allowed by mail. Product is not classified for any mode of transportation.

15. REGULATORY INFORMATION

Hazard Symbol : N - Dangerous for the Environment

Risk Phrases : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment (R50/53).

Safety Phrases : This material and its container must be disposed of as hazardous waste (S60).
Avoid release to the environment. Refer to special instructions/Safety data sheet (S61).

16. OTHER INFORMATION**Risk-phrases in Section 2**

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

This Master Safety Data Sheet complies with basic EU regulatory requirements for Safety Data Sheets on the date of publication, and is intended for translation and adaptation into European National documents. This document should NOT be relied upon for compliance with the laws and regulations of individual countries without the appropriate local translations and adaptations. It is your responsibility to ensure that any Safety Data Sheet taken or adapted from this system for re-distribution or use complies with all the laws and regulations which apply to any such use or re-distribution.