

MATERIAL SAFETY DATA SHEET



Bayer CropScience

Date of Issue: November 26th, 2009

1. IDENTIFICATION OF MATERIAL AND SUPPLIER

Product name **Belt[®] 480 SC Insecticide**
Other names None
Product codes and pack sizes 79136536 (10 L), 79377827 (1 L)
Chemical group Benzenedicarboxamide (phthalic acid diamide)
Recommended use Agricultural insecticide
Formulation Suspension Concentrate (SC)
Supplier Bayer CropScience Pty Ltd ABN 87 000 226 022
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Victoria 3123, Australia
Telephone (03) 9248 6888
Facsimile (03) 9248 6800
Website www.bayercropscience.com.au
Contact Development Manager (03) 9248 6888
Emergency
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2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HAZARDOUS SUBSTANCE - NON-DANGEROUS GOOD (road/rail)
Very toxic to certain aquatic organisms.

Hazard classification Not hazardous (National Occupational Health and Safety Commission - NOHSC)
Risk phrases None
Safety phrases See Sections 4, 5, 6, 7, 8, 9, 13
ADG classification See Section 14.
SUSDP classification (Poison Schedule) Schedule 5 (Standard for the Uniform Scheduling of Drugs and Poisons)

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Concentration (g/L)
Flubendiamide	[272451-65-7]	480
Other ingredients	(non hazardous)	740

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4. FIRST AID MEASURES

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Material Safety Data Sheet to the doctor.

Inhalation	If inhaled, remove to fresh air and keep at rest. Obtain medical advice if symptoms are experienced.
Skin contact	Carefully remove contaminated clothing and wash affected areas with plenty of water and soap. Seek medical aid if at all worried.
Eye contact	Rinse eyes immediately with clean water for at least 15 minutes. Obtain medical advice if irritation develops and persists.
Ingestion	Wash out mouth with water. Do not induce vomiting. Obtain medical advice as above.
First Aid Facilities	Provide eyewash and safety shower facilities in the workplace.
Medical attention	Flubendiamide is a benzenedicarboxamide insecticide of relatively low toxicity to mammals. <i>Symptoms:</i> There are no reports of poisonings in humans. <i>Treatment:</i> As there is no antidote, treatment has to be symptomatic and supportive. Gastric lavage may not be necessary due to the low toxicity of the compound. However, administration of activated charcoal and sodium sulphate is advisable with significant ingestions.

5. FIRE FIGHTING MEASURES

Extinguishing media	Water spray, carbon dioxide, foam, sand.
Hazards from combustion products	Carbon dioxide, carbon monoxide, nitrogen oxides, sulphur oxides, hydrogen fluoride and hydrogen cyanide may be released in a fire.
Precautions for fire fighters	Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). If possible and without risk, remove intact containers from exposure to fire. Contain fire-fighting water by bunding area with sand or earth to prevent it entering any bodies of water. Dispose of fire control water or other extinguishing agent and spillage safely later.
Hazchem code	Not applicable

6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled material or contaminated surfaces. Do not smoke, eat or drink during the clean up process. Wear personal protective clothing and equipment as detailed in Section 8 PERSONAL PROTECTION. Keep people and animals away. Prevent spilled material from entering drains or watercourses. Absorb spill with absorbent material, sweep up and collect and store in properly labelled drums for disposal. Seal drums and label ready for safe disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses etc. is unavoidable, warn the local water authority.

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7. HANDLING AND STORAGE

Handling	May irritate the eyes. Avoid contact with eyes. When opening the container and preparing spray wear elbow-length PVC gloves. Wash hands after use.
Storage	Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.
Flammability	Not flammable.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure standards	There are no NOHSC exposure standards applicable to this product.
Biological limit values	None allocated
Engineering controls	Control process conditions to avoid contact. Use in a well-ventilated area only.
Personal Protective Equipment	<ul style="list-style-type: none">• Safety goggles, if exposure is possible• Cotton overalls buttoned to the neck and wrist and a washable hat, if exposure is possible.• Elbow-length PVC gloves• Respiratory protection is not normally required during normal use of the product. If inhalation is likely, an AS/NZS 1715/1716 approved respirator should be worn.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White suspension liquid
Odour:	Slight characteristic odour
pH:	6.4 (1% dilution in water); 6.8 (undiluted)
Vapour pressure:	$< 10^{-4}$ Pa (at 200 °C) - flubendiamide
Vapour density:	Not available
Boiling point:	Not available
Freezing/melting point:	Melting point 217.5 – 220.7 °C - flubendiamide
Solubility:	Forms a suspension in water
Relative Density:	1.220
Flash Point:	Not applicable
Flammability (explosive) limits:	Not applicable
Auto-ignition temperature:	435 °C
Partition coefficient (octanol/water):	Log P_{ow} : 4.2 (25 °C) - flubendiamide

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10. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended conditions of storage and use.
Conditions to avoid	Avoid sources extremes of temperature and direct sunlight.
Incompatible materials	None known
Hazardous decomposition products	Carbon dioxide, carbon monoxide, nitrogen oxides, sulphur oxides, hydrogen fluoride and hydrogen cyanide may be released in a fire.
Hazardous reactions	None known

11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

Inhalation	Low toxicity by inhalation.
Skin contact	The product is not expected to irritate the skin and it is not a skin sensitiser.
Eye contact	May irritate eyes.
Ingestion	Low toxicity by ingestion.

ANIMAL TOXICITY DATA – PRODUCT

Acute:

Oral toxicity	LD ₅₀ rat: >5000 mg/kg
Dermal toxicity	LD ₅₀ rat: > 4000 mg/kg
Inhalation toxicity	LC ₅₀ rat (4 hour): >2564 mg/m ³
Skin irritation	Not irritating – rabbit
Eye irritation	Not irritating – rabbit
Sensitisation	Not a sensitiser – Guinea pig

Chronic:

Animal studies have shown flubendiamide is not carcinogenic, mutagenic or teratogenic, and does not affect reproduction.

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12. ECOLOGICAL INFORMATION

Very toxic to certain aquatic invertebrates. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

Ecotoxicity *Fish toxicity:* LC₅₀ (96 h): >250 mg/L rainbow trout
Daphnia toxicity: EC₅₀ (48 h): 0.0065 mg/L *Daphnia magna*
Algal toxicity: EC₅₀ (72 h): >0.07 mg/L *Pseudokirchneriella subcapitata*

Environmental fate, persistence, degradability and mobility Flubendiamide is initially quickly degraded in soil by indirect photolysis (DT₅₀ ≈ 13 days), however further microbial degradation occurs at a slower rate (DT₅₀ ≈ 600 days).

13. DISPOSAL CONSIDERATIONS

Triple rinse containers before disposal. Add rinsing to spray tank. Do not dispose of undiluted chemicals on site. Dispose of at a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. Dispose of waste product through a reputable waste contractor. Do not re-use containers for any other purpose.

14. TRANSPORT INFORMATION

UN number UN 3082
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (contains flubendiamide)
Class and Subsidiary Risk Class 9
Packing Group Packing Group III
Hazchem code •3Z
Marine Pollutant Yes
Note for Road and Rail Transport According to AU01, Environmentally Hazardous Substances in packagings, IBCs or any other receptacle not exceeding 500 kg or 500 L are not subject to the ADG Code

15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Code Act 1994
Australian Pesticides and Veterinary Medicines Authority approval number: 61223
See also Section 2.

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16. OTHER INFORMATION

Trademark information Belt® is a registered trademark of Bayer.

Preparation information Replaces April 8th, 2009 edition.
Reasons for change: Transport information.

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

END OF MSDS