SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier
Trade name Belt® 480 SC Insecticide
Product code (UVP) 06364705

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 Cropscience Pty Ltd
ABN 87 000 226 022
Level 1, 8 Redfern Road
3123 Hawthorn East
Victoria
Australia
Telephone (03) 9248 6888
Telefax (03) 9248 6800
Responsible Department 1800 804 479 Technical Information Service
Website www.crop.bayer.com.au

1.4 Emergency telephone no.
Emergency telephone no. 1800 033 111 IXOM Operations Pty Ltd

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification in accordance with Australian GHS Regulation
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
No hazard label for supply/use required.

2.3 Other hazards
No other hazards known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature
Flubendiamide 480 g/l
Chemical nature Suspension concentrate (=flowable concentrate)(SC)
Chemical Name | CAS-No. | Concentration [%]
---|---|---
Flubendiamide | 272451-65-7 | 39.00
Glycerine | 56-81-5 | <= 10.00
1,2-Benzisothiazol-3(2H)-one | 2634-33-5 | >= 0.005 - <= 0.05
Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one | 55965-84-9 | > 0.0002 - < 0.0015
Other ingredients (non-hazardous) to 100%

SECTION 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 Safety Data Sheet to the doctor.

4.1 Description of first aid measures

General advice
Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.

Inhalation
Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.

Skin contact
Take off contaminated clothing and shoes immediately. Wash off thoroughly with plenty of soap and water, if available with polyethylene glycol 400, subsequently rinse with 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. Get medical attention if irritation develops and persists.

Ingestion
Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms
To date no symptoms are known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment
Treat symptomatically. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. There is no specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable
Water spray, Carbon dioxide (CO2), Foam, Sand
5.2 Special hazards arising from the substance or mixture
In the event of fire the following may be released: Hydrogen cyanide (hydrocyanic acid), Hydrogen fluoride, Carbon monoxide (CO), Sulphur oxides, Nitrogen oxides (NOx)

5.3 Advice for firefighters
Special protective equipment for firefighters
Wear self-contained breathing apparatus and protective suit.
Further information
Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth. Do not allow run-off from fire fighting to enter drains or water courses.

Hazchem Code
\text{5/}

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Precautions
Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage do not eat, drink or smoke. Use personal protective equipment.

6.2 Environmental precautions
Do not allow to get into surface water, drains and ground water. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for 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.

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.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Advice on safe handling
Use only in area provided with appropriate exhaust ventilation.
Hygiene measures
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
Requirements for storage areas and containers
Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Keep away from direct sunlight.
Advice on common storage  Keep away from food, drink and animal feedingstuffs.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
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</thead>
<tbody>
<tr>
<td>Flubendiamide</td>
<td>272451-65-7</td>
<td>0.5 mg/m³ (TWA)</td>
<td></td>
<td>OES BCS*</td>
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<tr>
<td>Glycerine</td>
<td>56-81-5</td>
<td>10 mg/m³ (TWA)</td>
<td>12.2011</td>
<td>AU NOEL</td>
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</table>

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

8.2 Exposure controls

Respiratory protection  Respiratory 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.

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 6 suit. If there is a risk of significant exposure, consider a higher protective type suit.

General protective measures  In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the above mentioned recommendations would apply.

Engineering Controls

Advice on safe handling  Use only in area provided with appropriate exhaust ventilation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form  suspension
Colour: white to light beige
Odour: weak, characteristic
pH: 6.5 - 7.5 at 100 % (23 °C)
Flash point: >100 °C
No flash point - Determination conducted up to the boiling point.
Ignition temperature: 435 °C
Density: ca. 1.22 g/cm³ at 20 °C
Water solubility: miscible
Partition coefficient: n-octanol/water
Flubendiamide: log Pow: 4.2 at 25 °C

Other information: Further safety related physical-chemical data are not known.

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.
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: Thermal decomposition can lead to release of:
Carbon dioxide (CO2)
Carbon monoxide
Nitrogen oxides (NOx)
Sulphur oxides
Hydrogen fluoride
Hydrogen cyanide (hydrocyanic acid)

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute oral toxicity: LD50 (Rat) > 2,000 mg/kg
Acute inhalation toxicity: LC50 (Rat) > 2.564 mg/l
Exposure time: 4 h
Highest attainable concentration.
Determined in the form of a respirable aerosol.
Acute dermal toxicity: LD50 (Rat) > 4,000 mg/kg
Skin irritation: No skin irritation (Rabbit)
Eye irritation
No eye irritation (Rabbit)

Sensitisation
Non-sensitizing. (Guinea pig)
OECD Test Guideline 406, Buehler test

Assessment mutagenicity
Flubendiamide was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity
Flubendiamide was not carcinogenic in lifetime feeding studies in rats and mice.

Assessment toxicity to reproduction
Flubendiamide did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity
Flubendiamide did not cause developmental toxicity in rats and rabbits.

Assessment STOT Specific target organ toxicity – repeated exposure
Flubendiamide did not cause specific target organ toxicity in experimental animal studies.

Aspiration hazard
Based on available data, the classification criteria are not met.

Information on likely routes of exposure
Harmful if inhaled.
May cause skin irritation.
May cause eye irritation.
May be harmful if swallowed.

Early onset symptoms related to exposure
Refer to Section 4

Delayed health effects from exposure
Refer to Section 11

Exposure levels and health effects
Refer to Section 4

Interactive effects
Not known

When specific chemical data is not available
Not applicable

Mixture of chemicals
Refer to Section 2.1

Further information
No further toxicological information is available.
SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish
LC50 (Oncorhynchus mykiss (rainbow trout)) > 250 mg/l
Exposure time: 96 h

Toxicity to aquatic invertebrates
EC50 (Daphnia magna (Water flea)) 0.0065 mg/l
Exposure time: 48 h

Toxicity to aquatic plants
IC50 (Raphidocelis subcapitata (freshwater green alga)) > 0.07 mg/l
Exposure time: 72 h

The value mentioned relates to the active ingredient.
No acute toxicity was observed at its limit of water solubility.

12.2 Persistence and degradability

Biodegradability
Flubendiamide: Not rapidly biodegradable

Koc
Flubendiamide: Koc: 2197

12.3 Bioaccumulative potential

Bioaccumulation
Flubendiamide: Bioconcentration factor (BCF) 73
Does not bioaccumulate.

12.4 Mobility in soil

Mobility in soil
Flubendiamide: Slightly mobile in soils

12.5 Other adverse effects

Additional ecological information
No other effects to be mentioned.

SECTION 13. DISPOSAL CONSIDERATIONS

Metal drums and plastic containers:
Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in 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.
Do not reuse container for any other purpose.

SECTION 14. TRANSPORT INFORMATION

ADG

| UN number | 3082 |
| Transport hazard class(es) | 9 |
| Subsidiary Risk | None |
| Packaging group | III |
Description of the goods: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FLUBENDIAMIDE)

Hazchem Code: 5

According to AU01, Environmentally Hazardous Substances in packagings, IBC or any other receptacle not exceeding 500 kg or 500 L are not subject to the ADG Code.

IMDG

<table>
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<tbody>
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<tr>
<td>Subsidiary Risk</td>
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</tr>
<tr>
<td>Packaging group</td>
<td>III</td>
</tr>
<tr>
<td>Marine pollutant</td>
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<tr>
<td>Description of the goods</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FLUBENDIAMIDE)</td>
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IATA

<table>
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<tr>
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<td>Subsidiary Risk</td>
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<tr>
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</table>

SECTION 15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Code Act 1994
Australian Pesticides and Veterinary Medicines Authority approval number: 61223

SUSMP classification (Poison Schedule)

Schedule 5 (Standard for the Uniform Scheduling of Medicines and Poisons)

SECTION 16. OTHER INFORMATION

Trademark information: Belt® is a Registered Trademark of the Bayer Group.

This SDS 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 SDS 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.
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
AU OEL  Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)
CAS-Nr.  Chemical Abstracts Service number
CEILING  Ceiling Limit Value
Conc.  Concentration
EC-No.  European community number
ECx  Effective concentration to x %
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
OES BCS  OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"
PEAK  PEAK: Exposure Standard - Peak means a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.
RID  Regulations concerning the International Carriage of Dangerous Goods by Rail
SK-SEN  Skin sensitiser
SKIN DES  SKIN DES: Skin notation: Absorption through the skin may be a significant source of exposure.
STEL  STEL: Exposure standard - short term exposure limit (STEL): A 15 minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL.
TWA  TWA: Exposure standard - time-weighted average (TWA): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.
TWA  Time weighted average
UN  United Nations
WHO  World health organisation

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