

SAFETY DATA SHEET



MESUROL PRO SNAIL AND SLUG BAIT

Version 1 / NZ
10200007497

1/10
Revision Date: 13.11.2017
Print Date: 13.11.2017

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

1.1 Product identifier

Trade name MESUROL PRO SNAIL AND SLUG BAIT
Product code (UVP) 05176409

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

Use Molluscicide, Insecticide, Acaricide, Repellent
EPA-Nr. HSR007966

1.3 Details of the supplier of the safety data sheet

Supplier Bayer New Zealand Limited
 3 Argus Place, Hillcrest
 Auckland 0627
 New Zealand
Telephone 0800 428 246
Telefax (09) 441 8645

1.4 Emergency telephone no.

Emergency Number 0800 734 607 (24hr)
Global Incident Response +1 (760) 476-3964 (Company 3E for Bayer AG, Crop Science Division)
Hotline (24h)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classified as hazardous according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001

6.1D
H302 Harmful if swallowed.
6.9B
H373 May cause damage to organs through prolonged or repeated exposure.
9.1A
H410 Very toxic to aquatic life with long lasting effects.
9.2D
H423 Harmful to the soil environment.
9.3B
H432 Toxic to terrestrial vertebrates.
9.4C
H443 Harmful to terrestrial invertebrates.

2.2 Label elements

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Labelling in accordance with Hazardous Substances Identification Regulations 2001

Hazard label for supply/use required.



Signal word: Warning

Hazard statements

- H302 Harmful if swallowed.
H373 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.
H423 Harmful to the soil environment.
H432 Toxic to terrestrial vertebrates.
H443 Harmful to terrestrial invertebrates.

Precautionary statements

- P102 Keep out of reach of children.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor/ physician.
P391 Collect spillage.
P501 Dispose of contents/container in accordance with local regulation.

2.3 Other hazards

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical nature

Bait (ready for use) (RB)
Methiocarb 2 % w/w

Hazardous components

Name	CAS-No.	Conc. [%]
Methiocarb	2032-65-7	2

Further information

Methiocarb	2032-65-7	M-Factor: 100 (acute)
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SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

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General advice	Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.
Skin contact	Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water.
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.
Ingestion	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.) Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	Local:, Temporary blurred vision due to contraction of the pupils (miosis) following contact with the eyes., Systemic:, Bradycardia, Low blood pressure, Salivation, Bronchial hypersecretion, Vomiting, Diarrhoea, Sweating, Muscular fasciculation, Spasm, Breathing difficulties, Respiratory paralysis, Somnolence, Coma, Respiratory failure, Hypothermia, Convulsions, Nausea
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4.3 Indication of any immediate medical attention and special treatment needed

Risks	This product is a cholinesterase inhibitor carbamate.
Treatment	Monitor: respiratory, cardiac and central nervous system. Monitor: blood picture. Monitor: red blood cell and plasma cholinesterase. ECG - monitoring (Electrocardiogram). Contraindications: oximes (pralidoxime, obidoxime). Oxygen or artificial respiration if needed. Keep respiratory tract clear. 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. The following antidote is generally accepted: atropine. In case of convulsions, a benzodiazepine (e.g. diazepam) should be given according to standard regimens.

Contact the National Poisons and Hazardous Chemicals Information center in Dunedin, PO Box 913, Dunedin. Phone 0800 POISON (0800 764 766).

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable	Water spray, Carbon dioxide (CO ₂), Foam, Sand
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5.2 Special hazards arising from the substance or mixture	In the event of fire the following may be released:, Carbon monoxide (CO)
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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Precautions Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

6.2 Environmental precautions Do not allow to get into surface water, drains and ground water.

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. 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 No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice.

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.

Suitable materials Combination of sheet metal and HDPE (high density polyethylene)
HDPE (high density polyethylene)

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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
Methiocarb	2032-65-7	0.14 mg/m ³ (TWA)		OES BCS*

*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

8.2 Exposure controls

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

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

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.

If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form	pellets
Colour	blue
Odour	weak, characteristic
Water solubility	at 20 °C insoluble, only capable of swelling
Partition coefficient: n-octanol/water	Methiocarb: log Pow: 3.08 at 20 °C Unbuffered
Impact sensitivity	Not impact sensitive.
Oxidizing properties	No oxidizing properties
Explosivity	Not explosive

9.2 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 No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity LD50 (Rat) > 500 - < 1,000 mg/kg
Test conducted with a similar formulation.

Acute inhalation toxicity Not relevant because of low dust formation.

Acute dermal toxicity LD50 (Rat) > 2,000 mg/kg
Test conducted with a similar formulation.

Skin irritation No skin irritation (Rabbit)
Test conducted with a similar formulation.

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Eye irritation No eye irritation (Rabbit)
Test conducted with a similar formulation.

Sensitisation Non-sensitizing. (Guinea pig)
OECD Test Guideline 406, Buehler test
Test conducted with a similar formulation.

Assessment STOT Specific target organ toxicity – single exposure

Methiocarb: Based on available data, the classification criteria are not met.

Assessment STOT Specific target organ toxicity – repeated exposure

Methiocarb did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity

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

Assessment carcinogenicity

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

Assessment toxicity to reproduction

Methiocarb caused reproduction toxicity in generation studies in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Methiocarb is related to parental toxicity.

Assessment developmental toxicity

Methiocarb caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Methiocarb are related to maternal toxicity.

Aspiration hazard

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

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish LC50 (Lepomis macrochirus (Bluegill sunfish)) 0.65 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient.

Toxicity to aquatic invertebrates EC50 (Daphnia magna (Water flea)) 0.0077 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient.

Toxicity to aquatic plants IC50 (Desmodesmus subspicatus (green algae)) 2.2 mg/l
Growth rate; Exposure time: 72 h
The value mentioned relates to the active ingredient.

12.2 Persistence and degradability

Biodegradability Methiocarb:
Not rapidly biodegradable

Koc Methiocarb: Koc: 660

12.3 Bioaccumulative potential

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Bioaccumulation Methiocarb:
Does not bioaccumulate.

12.4 Mobility in soil

Mobility in soil Methiocarb: Slightly mobile in soils

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment Methiocarb: 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.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product Dispose of this product only by using according to the label, or at an approved landfill or other approved facility.

Contaminated packaging Triple rinse containers. Recycle if possible. If allowed under local authority, burn if circumstances, especially wind direction permit, otherwise crush and bury in an approved local authority facility. Do not use container for any other purpose.

SECTION 14: TRANSPORT INFORMATION

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

ADR/RID/ADN

14.1 UN number	3077
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (METHIOCARB MIXTURE)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES
Hazchem Code	2Z

IMDG

14.1 UN number	3077
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (METHIOCARB MIXTURE)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Marine pollutant	YES

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14.1 UN number	3077
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (METHIOCARB MIXTURE)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES

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

No transport in bulk according to the IBC Code.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Further information

HSNO approval-Nr.	HSR007966
HSNO Controls	See www.epa.govt.nz
ACVM Reg.	P7847
ACVM Condition	See www.foodsafety.govt.nz

SECTION 16: OTHER INFORMATION

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
CAS-Nr.	Chemical Abstracts Service number
Conc.	Concentration
EC _x	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)
IC _x	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LC _x	Lethal concentration to x %
LD _x	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

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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
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance of the product.

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