



Rumensin Capsule

Effective Date: 20 October 2011

Section 1 – Identification of the substance and supplier

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| Product Name: | Rumensin Capsule |
| Manufacturer's Product Code: | AH0942 |
| UN number: | N/A |
| Proper Shipping Name: | N/A |
| Pack Size: | 5 Capsules per foil packet 40 Capsules per bucket |
| Recommended use: | Controlled release capsules for beef and dairy cattle. An aid in the reduction of bloat in beef and dairy cattle. For improved feed efficiency and/or weight gain in beef cattle. An aid in the control of ketosis in dairy and beef cows. For increased milk protein production in dairy cows. |

NEW ZEALAND COMPANY DETAILS:

Elanco Animal Health
(Division of Eli Lilly & Company (NZ) Limited)
 Level 1, 123 Ormiston Road
 Botany Junction, Auckland 2016
 Telephone: 09 523 9320
 (Mon-Fri, 8.30am – 5.00pm)
 0800 ELANCO (0800 352 626)
 www.elanco.co.nz

NEW ZEALAND EMERGENCY PHONE:

National Poisons Centre:
 0800 POISON (0800 764 766)
 24 hours

CHEMCALL:
 0800 CHEMCALL (0800 243 622)
 24 hours

Section 2 - Hazards Identification

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

Rumensin Capsules are approved pursuant to the HSNO Act 1996, HSR002017. The EPA website www.epa.govt.nz should be consulted for the full list of triggered controls and cited regulations.

HSNO Classifications:

6.1A Acute toxin (oral)
 (Regulations 14, 25 and 46 of the Hazardous Substances (Identification) Regulations 2001 are varied such that these regulations apply as if the substance is a class 6.1C hazardous substance but is not a class 6.1A hazardous substance)

- 6.3B Skin irritant
- 6.5B Skin allergen
- 8.3A Eye corrosive
- 9.1A Aquatic ecotoxin
- 9.2B Soil ecotoxin
- 9.3A Terrestrial vertebrate ecotoxin

Signal word: DANGER

Hazard Statements: Toxic if swallowed
 Causes mild skin irritation
 May cause an allergic skin reaction
 Causes serious eye damage
 Very toxic to aquatic life
 Toxic to the soil environment
 Very toxic to terrestrial vertebrates

Precautionary Statements: Read label before use
 Keep out of reach of children
 Wash hands thoroughly after handling
 Do not eat, drink or smoke while using this product
 Wear protective gloves
 Contaminated work clothing should not be allowed out of the workplace
 Wash contaminated clothing before reuse
 Store locked up
 Avoid release to the environment
 Collect spillage

Section 3 - Composition / Information on Ingredients

| Chemical Name | CAS-No. | Concentration [%] |
|-----------------|------------|-------------------|
| Monensin sodium | 22373-78-0 | 43 - 50 |
| Excipients | N/A | 50 - 57 |

N/A = Not applicable, Not assigned, or Not available.

Monensin sodium:

Chemical Name: Monensin sodium
Alternate Chemical Name: Monensin, monosodium salt

Section 4 - First Aid Measures

SYMPTOMS:

If swallowed: When laboratory animals receive a bolus injection of monensin sodium, there are

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| If inhaled: | cardiovascular changes such as increased heart rate and elevated blood pressure. Respiratory tract irritation has been reported. Prolonged exposure to high concentrations of grain dust or limestone dust may cause irritation of the respiratory tract and mucous membranes. |
| If on skin: | Skin rash has been reported. |
| If in eyes: | Based on animal data, may cause burns or permanent tissue damage to the eyes. Immediate rinsing may prevent permanent damage. |
| Medical Conditions Aggravated by Exposure: | Hypersensitivity to monensin sodium. Persons with a history of allergies, contact dermatitis, or chronic rashes should use special precautions to avoid skin contact or exposure to dust. When laboratory animals receive a bolus injection of monensin sodium, there are cardiovascular changes such as increased heart rate and elevated blood pressure. In experience with human exposure, however, there is no corroborative information available that would establish the aggravation of a medical condition by exposure to monensin sodium. |
| TREATMENT: | |
| If swallowed: | Immediately call the National Poisons Centre 0800 POISON (0800 764766) or a doctor. Rinse mouth. Do not induce vomiting |
| If inhaled: | Product is not expected to present a hazard by inhalation due to its solid, tablet nature. If inhalation does occur, remove individual to fresh air. If not breathing, provide artificial respiration assistance (mouth-to-mouth) and call a physician immediately. |
| If on skin: | Remove contaminated clothing and clean before reuse. Wash all exposed areas of skin with plenty of soap and water. Get medical attention if irritation develops. |
| If in eyes: | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |

Section 5 - Fire Fighting Measures

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| Flash point | Not applicable |
| Lower explosion limit | Not applicable |
| Upper explosion limit | Not applicable |
| Suitable extinguishing media: | Use water, carbon dioxide, dry chemical, foam, or Halon |
| Unsuitable extinguishing media: | None known |
| Unusual Fire and Explosion Hazards: | None known |
| Fire fighting precautions: | May emit toxic fumes when exposed to heat or fire. |
| Hazchem code: | 2Z |

Section 6 - Accidental Release Measures

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| Protective clothing and equipment: | Wear protective equipment, including eye protection, to avoid exposure (see Section 8 for specific handling precautions). |
| Environmental precautions: | Prevent further migration into the environment. Do not allow material to enter waterways. |
| Procedure: | Scoop or scrape up spillage. |
| Emergency response assistance: | For specialist advice in an emergency call 0800 CHEMCALL (0800 243 622) and Elanco Animal Health for assistance |

Section 7 - Handling and Storage

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| Storage instructions: | Keep out of reach of children. Store securely at 30°C or below. Protect from direct heat and sunlight. |
| Handling precautions: | Wash hands and exposed skin thoroughly after handling. |
| Emergency response plan required: | 100kg |
| Emergency containment required: | N/A |
| Signage required: | 50kg |
| Approved Handler: | Not required |
| Packaging requirements: | Packing Group III |

Section 8 - Exposure Controls / Personal Protection**Exposure limits or guidelines:**

The physical nature and packaging of the product makes exposure to significant quantities of the active ingredient highly unlikely.

LEG 15 µg/m³ TWA (12h)

Engineering measures:

Monensin sodium:

In a manufacturing setting, wear chemical-resistant gloves and body covering to minimize skin contact. If handled in a ventilated enclosure, as in a laboratory setting, respirator and goggles or face shield may not be required. Safety glasses are always required.

Personal protective equipment:

In a manufacturing setting, use protective clothing, impervious gloves, and approved respirator. Chemical goggles and/or face shield. Under normal use and handling conditions, protective equipment is not required. Wash thoroughly with soap and water after handling.

Precautions:

Do not feed undiluted to animals.

Do not allow dogs, horses or other equines access to feeds containing monensin sodium. Ingestion of monensin sodium by horses has been fatal.

Wear impermeable gloves when handling the core. Capsule contains a coiled spring. Caution should be exercised when opening the core. Avoid direct contact with the skin.

Section 9 - Physical and Chemical Properties**Appearance:**

Yellow to white tablets contained within an orange translucent plastic core, with retaining wings

Physical state:

Solid

Odour:

Odourless

pH:

Not applicable

Boiling point:

Not applicable

Freezing point:

Not applicable

Solubility:

Insoluble

Specific Gravity:

No applicable information found

Flammability:

No applicable information found

Section 10 - Stability and Reactivity**Stability:**

Stable at normal temperatures and pressures

Conditions to avoid:

None known

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| Incompatible materials: | May react with strong oxidizing agents (e.g., peroxides, permanganates, nitric acid, etc.). |
| Hazardous decomposition products: | May emit toxic fumes when heated to decomposition |
| Hazardous reactions | Hazardous polymerisation does not occur |

Section 11 - Toxicological Information

No data available for mixture. Data for ingredients or related materials are presented.

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| Acute oral toxicity | Monensin sodium: | Rat, LD ₅₀ 34 mg/kg, reduced activity, incoordination, skeletal muscle weakness |
| Acute inhalation toxicity | 24% Monensin sodium mixture: | Rat, 370 mg/m ³ for 1 hour, no deaths |
| Acute dermal toxicity | 24% Monensin sodium mixture: | Rabbit, 500 mg/kg, no deaths or toxicity |
| Skin irritation | 24% Monensin sodium mixture: | Rabbit, slight irritant |
| Eye irritation | 24% Monensin sodium mixture: | Rabbit, corrosive, but permanent damage prevented by immediate rinsing. |
| Sensitisation | Monensin sodium: | Guinea pig, not a contact sensitizer |
| Repeated dose toxicity | Monensin sodium: | Heart effects (degenerative and reparative tissue changes, electrocardiogram changes, congestive heart failure), muscle effects (skeletal muscle changes, elevated blood enzymes of muscle origin). Decreased body weight gains, increased kidney, heart, thyroid, adrenal, prostate, testes, liver, and spleen weights. |
| Carcinogenicity | Monensin sodium: | Not listed by IARC, NTP, ACGIH, or OSHA. Not considered carcinogenic in animal studies |
| Reproductive toxicity | Monensin sodium: | No effects identified in animal studies |
| Mutagenicity | Monensin sodium: | Result in genetic toxicity assays (in vitro and in vivo): negative |

Section 12 - Ecological Information

No data available for mixture. Data for ingredients or related materials are presented.

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| Toxicity to fish | Monensin sodium: | LC ₅₀ / 96h / Rainbow Trout : 9.0 mg/L |
| Toxicity to algae | Monensin sodium: | LC ₅₀ / 96h / Bluegill : 16.6 mg/L EC ₅₀ / 72 h / Green algae (S. capricornutum) (average specific growth rate): 4.33 mg/L |
| Toxicity to daphnia | Monensin sodium: | EC ₅₀ / 48 h / Daphnia magna : 10.7 mg/L |
| Toxicity to earthworms | Monensin sodium: | LC ₅₀ / 14d / Earthworm : >264.2 mg/kg |
| Toxicity to birds | Monensin sodium: | LC ₅₀ / 14d oral / Bobwhite : 85.7 mg/kg LC ₅₀ / 5d dietary / Bobwhite : 1090 ppm LC ₅₀ / 5d dietary / Mallard : >5000 ppm |
| Any other relevant information available | Monensin sodium: | Phytotoxicity 14 species: moderate injury at 4 to 8 mg/kg Phytotoxicity median effective concentration (growth): 12.9 mg/kg (oats), >4.347 mg/kg (radish), 32.9 mg/kg (mung bean) Soil Microflora: Carbon transformation (18.3 mg/kg): < 25% deviation from controls Nitrogen transformation (18.3 mg/kg): < 25% deviation from controls |
| Environmental Fate | Monensin sodium: | Log Kow: 4.24, 2.75, 3.79 (pH 5, 7, 9) Water Solubility (mg/L): degraded, 4.8, 8.9 (pH 4, 7, 9) Photolysis half-life (days): 43.9 Photolysis rate constant (1/day): 0.0158 Hydrolysis : none measured (pH 5, 7, 9) Soil degradation half-life (days): 7.5 Soil adsorption coefficient (log Koc): >5.63 (pH 4.5, 6) Greater than 50% loss in sandy, silt and clay loam soils in less than 14 days Bioconcentration factor (calculated): 72.4 |
| | Monensin sodium: | No volatility expected. Not expected to bioconcentrate in aquatic organisms. Adsorbs strongly to soil. Not persistent in the environment due to biodegradation and photolysis. |

Section 13 - Disposal Considerations

Preferably dispose of product by use. Otherwise dispose of product as part of an approved chemical disposal program. Burn empty packaging if conditions such as wind direction permit. Otherwise dispose of packaging at an approved landfill facility.

Section 14 - Transport Information

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| Land Transport | Not regulated |
| Air Transport | Not regulated |
| Sea Transport | Not regulated |
| UN Number | Not assigned |
| Proper Shipping Name | Not assigned |
| DG Class | Not assigned |
| Subsidiary Risk | Not assigned |
| Packing Group | III |
| HAZCHEM Code | 2X |
| Marine Pollutant | No |

Carriage on public transport is prohibited.

Section 15 - Regulatory Information

Rumensin Capsule is approved pursuant to the ACVM Act 1997 (A9676).
See www.foodsafety.govt.nz for registration conditions.

A Safety Data Sheet must be provided whenever any amount of Rumensin Capsules are sold or supplied.

Section 16 – Other Information

This SDS is effective as of 20 October 2011.

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| Sections updated or revised: | Formatting of entire document. ACVM website updated. |
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Due for revision within 5 years.

Further information

As of the date of issuance, we are providing available information relevant to the handling of this material in the workplace. All information contained herein is offered with the good faith belief that it is accurate. THIS MATERIAL SAFETY DATA SHEET SHALL NOT BE DEEMED TO CREATE ANY WARRANTY OF ANY KIND (INCLUDING WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE). In the event of an adverse incident associated with this material, this safety data sheet is not intended to be a substitute for consultation with appropriately trained personnel. Nor is this safety data sheet intended to be a substitute for product literature which may accompany the finished product.

For additional information contact:
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