SAFETY DATA SHEETS

This SDS packet was issued with item:

078918212

N/A



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Next revision due: September 2017

Material Safety Data Sheet TILDREN

Section 1 – Identification of Material and Supplier

COMPANY DETAILS

Company:

Ceva Animal Health Pty Limited ABN 54 002 692 426

Telephone Number: +61 2 9652 7000

Emergency Telephone Number: +61 2 9652 7000 (Business Hours) Poisons Information Centre: 13 11 26 Address:

11 Moores Road Glenorie NSW 2157 Australia

Facsimile Number: +61 (02) 9652 7001

SUBSTANCE IDENTIFICATION

Product Name:

Tildren Injection

Other Names:

Tiludronate disodium [[(4- Chlorophenyl)thio]methylene]bis[phosphonic acid]

Manufacturer's Product Code:

83841V

UN Number:

None allocated

Dangerous Goods Class and Subsidiary Risk:

None allocated

Hazchem Code:

None allocated

SUSDP Poisons Schedule Number:

S4

Use:

Treatment of lameness associated with bone and cartilage changes such as those observed in navicular disease and bone spavin. For animal treatment only.

Section 2 – Hazards Identification

Statement of Hazardous Nature:

Hazardous according to criteria of NOHSC Australia.

Risk Phrases:



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No risk phrases identified.

Safety Phrases:

No safety phrases identified.

Section 3 – Composition / Information on Ingredients

The substance is a mixture of the ingredients listed below. The product is in the form of a powder for reconstitution in water. Each vial contains approximately 195 mg of powder.

Chemical NameCAS NumberProportionDisodium tiludronate89987-06-0456.91 mg per vialMannitol<40%</td>Sodium chloride<40%</td>
Sterile water for Injection BP
10ml per vial

Section 4 - First Aid Measures

Swallowed:

Accidental or deliberate ingestion of the contents of a single vial is not expected to represent a significant health hazard. The main risk of exposure is to persons manufacturing the product. No specific first aid requirements.

Eye:

May cause transient eye irritation. Avoid contact with eyes. If in eyes, hold eyes open and flood gently with water until substance is removed.

Skin:

May cause transient irritation or allergic reactions. If skin irritation occurs, remove contaminated clothing and wash skin thoroughly with water.

Inhaled:

May cause irritation if inhaled. First Aid is not generally required. Remove to fresh air and monitor breathing. If breathing becomes difficult, consult a doctor.

First Aid Facilities:

No specific first aid facilities required.

Advice to Doctor:

Active ingredient is used in human medicine (see Health Effects). Symptomatic and supportive treatment if required.



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Section 5 – Fire Fighting Measures

Fire/Explosion Hazard:

There is no risk of explosion from this product. The product is not readily combustible. When heated to decomposition, it may emit toxic fumes of chlorine, phosphorus oxide, sulfur oxide, sodium oxide. Formation of phosphine is theoretically possible.

Flashpoint:

Not determined.

Flammability Limits:

Not determined.

Extinguishing Media:

Use Water spray, carbon dioxide or dry chemical.

Special Fire Fighting Procedures:

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Use water spray to keep fire exposed containers cool.

Hazchem Code:

None allocated.

Section 6 – Accidental Release Measures

Emergency Procedures:

None prescribed.

Methods and Materials for Containment and Clean Up Procedures

If a small spill occurs, wipe up spill with moistened cloth and place in garbage.

In the case of large spills (eg if a truck carrying several pallets of product overturns), evacuate non-essential personnel from the area. Wear protective equipment to prevent inhalation or eye/skin contact. Minimize dust generation. Gently scoop up and place broken containers or spilled powder or into suitable impervious containers for disposal. Wash spillage area with surfactant and water. Dispose of waste in accordance with local, state and federal laws.

Section 7 – Handling and Storage

Precautions for Safe Handling:

Avoid unnecessary contact with skin and eyes. See Section 8 Exposure Controls and Personal Protection for details of personal protection measures.

Storage:

Store the powder below 25°C (Air conditioning) in outer carton.

Refrigerate the reconstituted product at 2dC to 8°C. Do not freeze. As the product contains no preservatives, discard any unused portion within 24 hours following reconstitution.



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Section 8 – Exposure Controls / Personal Protection

National Exposure Standards:

NOHSC has not listed exposure limits for ingredients in this product.

Biological Limit Values:

No BLVs have been established for the ingredients in this product.

BLVs are reference values for the evaluation of potential health risks in the practice of industrial hygiene. Biological monitoring involves the measurement of substances in biological media (eg blood, urine, etc.) and the measurement of biological effects induced by the substance.

Engineering Controls:

No engineering controls allocated. If large amounts of product are being handled, ensure adequate ventilation system.

Personal Protective Equipment:

No specific protective clothing required.

If large amounts of product are being handled, and dust may be generated, respiratory and eye protection (such as dust mask and safety goggles) is advisable.

Hand protection is also required if handling large quantities of powder.

Wash hands and change contaminated clothing after working with substance.

Section 9 – Physical and Chemical Properties

Appearance:

White powder contained in labelled 10 mL vials of 195 mg powder/vial (tiludronic acid 50 mg/vial). Powder is reconstituted with 10 mL water prior to use.

Odour:

Odourless

pH:

4.0 - 5.0 (reconstituted solution)

Melting Point:

Not determined.

Solubility:

Soluble in water

Practically insoluble in alcohol and in methylene chloride.

Specific Gravity:

1.018 to 1.024 (reconstituted solution)

Section 10 - Stability and Reactivity

Chemical Stability:

Product is not likely to react or decompose under normal storage conditions. If the reconstituted solution of TILDREN Injection is mixed with other solutions containing Ca²⁺ or Mg²⁺ ions, the tiludronic acid in solution could form a complex with these ions, leading to precipitation in the medium.



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Conditions to Avoid:

Avoid exposure to heat and light.

Incompatible Materials:

No incompatible materials.

Hazardous Decomposition Products:

Upon thermal decomposition, may emit smoke and toxic gases including oxides of carbon, sulfur and hydrogen chloride

Hazardous Reactions:

No hazardous reactions such as polymerization known.

Section 11 – Toxicological Information

Health Effects:

Adverse health effects are not expected when the product is used according to label.

Tiludronate disodium (tradename SKELID®) is used in humans for the long-term oral dose therapy of Pagets disease of bone and post-menopausal osteoporosis. SKELID® tablets for oral administration in humans contain 240 mg tiludronate disodium (~ 5 times more active ingredient than is contained in one vial of Tildren).

Tiludronate disodium acts primarily on bone through a mechanism that involves inhibition of osteoclastic activity with a probable reduction in the enzymatic and transport processes that lead to resorption of the mineralized matrix.

Acute:

Following single dose of 240 mg tiludronate disodium in humans (=5 vials of Tildren), pharmacological effects associated with altered bone turnover (decreased serum alkaline phosphatase and excretion of hydroxyproline in urine) may be observed. Bisphosphonates may cause upper gastrointestinal disorders, such as dysphagia, esophagitis, esophageal ulcer, and gastric ulcer. Adverse effects observed in healthy male volunteers include elevation of serum creatinine concentration, changes in brush border enzymes and protein resorption (suggestive of a proximal tubule reaction).

Acute toxicity data

Oral LD_{50} rat 430-700 mg/kg

Oral LD_{50} mouse 1200-1400 mg/kg

Intravenous (solution) LD₅₀ (i.v. rat) 120-175 mg/kg

Intravenous (solution) LD₅₀ (i.v. mouse) 120-175 mg/kg

Swallowed: There have been no reported cases of overdose in humans with the oral formulation of

tiludronate. Hypocalcemia has been reported following substantial overdose with another biphosphonate. Based on clinical and animal studies gastric effects (nausea, gastric pain, diarrhoea, anorexia), renal effects (including insufficiency), hepatitis and

headache may result from occupational exposure.

Exposure to the powder may cause transient eye irritation. Avoid contact with eyes.

Skin: Exposure to the powder may cause transient irritation or allergic skin reaction on

contact. Avoid contact with skin.



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<u>Inhaled</u>: Remove to fresh air. If person is not breathing, give artificial respiration. If breathing is

difficult, administer oxygen. Seek medical attention immediately.

Chronic:

The following chronic effects are reported for the human product (SKELID® tablets) where continuous exposure over a long period could be expected (as opposed to the use of Tildren which is imported fully packed and any accidental exposure is likely to be a single incident):

<u>Pharmacological</u>: associated with altered bone turnover include decreased serum alkaline phosphatase and urinary hydroxyproline.

<u>Gastrointestinal</u>: effects (abdominal pain, loss of appetite, nausea and diarrhoea) are the most frequently reported adverse events following repeated administration in the clinic. The Incidence of these events are dose related.

<u>Dose related renal effects</u>: (proximal tubulopathy, discoloration, interstitial tubulonephritis) have been observed in the mouse, rat, dog and baboon. Elevated serum creatine levels and/or BUN and acute renal insufficiency have been observed in the clinic.

Other: Severe transient hepatitis, a severe skin reaction, a slight reversible decrease in lymphocyte subpopulations, and headaches have also been observed in patients receiving tiludronate in clinical trials.

Reproductive Effects:

No reproductive toxicity was observed in animal studies conducted at doses which did not produce maternal toxicity.

Mutagenic effects:

Tiludronate was not genotoxic in the following assays: an *in vitro* microbial mutagenesis assay with and without metabolic activation, a human lymphocyte assay, a yeast cell assay for forward mutation and mitotic crossing over, or the *in vivo* mouse micronucleus test.

Teratogenicity

No developmental toxicity was observed in the animal studies conducted at doses which did not produce maternal toxicity.

Carcinogenic Effects:

Toxicity Data: <u>Test Species Results</u> Oral (1.5 years) Mouse Negative Oral (2.0 years) Rat Negative

Toxicity to Other Domestic Species:

No toxicity to other domestic species known.

Section 12 – Ecological Information

Summary: Tiludronate disodium is freely soluble in water with an octanol/water partition coefficient of Log K_{OW} <-3.8. This suggests the compound will migrate to the water compartment.

This product is very stable. The aerobic biodegradation is zero in 28 days, therefore the product is classified as not readily degradable. Tiludronate disodium has shown low to slight toxicity in microbial inhibition toxicity and activated sludge tests.



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Oxygen Demand Data: 5-day BOD

Reference 102 mg/L 1 mg/l 0 mg/L 10 mg/l 0 mg/L 100 mg/l 0 mg/L 1000 mg/l 0 mg/L

Chemical Oxygen Demand and Theoretical Oxygen Demand

COD for SR 41319B = $0.825 \text{ mg } 0_2/\text{mg}$ ThOD for SR 41319B = $0.861 \text{ mg } 0_2/\text{mg}$

Biodegradation: 28 Day BOD = 0% Biodegradation

Photodegradation: Buffered aqueous solution pH 7 = 4.2 hours

Deionized water = 8.9 hours

Microbial Inhibition Toxicity:

Micro-organism Minimum Inhibitory Concentration (ppm)

Bacillus cerevs >1000 Nustoc muscorum 800-1000 Chaetomium globosum >1000 penicillium cyclopium >1000 Azotobacter vinelandii 100-200

Algal Inhibition/Toxicity:

Selenastrum capricornatum 14 days EC₅₀: 36.6 ppm Microcystis aeruginosa 21 days EC₅₀: 13.3 ppm

Acute Aquatic Toxicity:

Daphnia magna 24 hour EC_{50} : 562 ppm Daphnia magna 48 hour EC_{50} : 320 ppm Daphnia magna 48 hour NOEL: 247 ppm

Activated Sludge Test: EC₅₀ SR 41319B: >100 mg/L

Section 13 – Disposal Considerations

Empty packaging may be disposed of in garbage.

Section 14 – Transport Information

UN Number:

None allocated

Dangerous Goods Class and Subsidiary Risk:

None allocated

Hazchem Code:

None allocated



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ADG Code: This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.

Section 15 – Regulatory Information

SUSDP Poisons Schedule Number:

S4

APVMA Approval Number:

58057

Section 16 – Other Information

This MSDS contains only information related to safety. For other data, see product literature.

Read all labels and package inserts carefully before using this product.

Glossary and Acronyms:

ADI Acceptable Daily Intake, as listed in the Australian ADI List, August 2003. Unique number assigned by the Chemical Abstracts Service, Columbus,

Ohio, USA.

Hazchem Code Emergency action code of numbers and letters giving information to

emergency services.

LD50 Lethal dose for 50 % of a group of specified test animals.

MSDS Material Safety Data Sheet (also called Safety Data Sheet in some

countries).

NOEL No Observable Effect Level, as listed in the Australian ADI List, August 2003.

NOHSC National Occupational Health and Safety Commission

Risk Phrase Standard phrase describing the hazard of a substance as provided in the

NOHSC "Approved Criteria for Classifying Hazardous Substances

[NOHSC:1008]"

Safety Phrase Standard phrase describing the safe handling, storage or use of personal

protective equipment for a material as provided in the NOHSC "Approved

Criteria for Classifying Hazardous Substances [NOHSC:1008]"

SUSDP Standard for the Uniform Scheduling of Drugs & Poisons

UN Number United Nations Number

CONTACT POINT

Ceva Animal Health Pty Ltd Regulatory Affairs Manager

(02) 9652 7000.

This information has been collated by technical personnel employing data available from the prime manufacturer of the material. To the best of our knowledge it is true and accurate. It is not intended to be all inclusive and the manner and conditions of use and handling may involve other or additional considerations.



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END OF MSDS



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Section 1 - Identification of The Material and Supplier

Ceva Animal Health Pty Ltd Phone: 02 9652 7000 (office hours)

11 Moores Rd Fax: 02 9652 7001 Glenorie NSW 2157 www.ceva.com.au

Chemical nature: Tiludronic acid (as disodium tiludronate) and other ingredients.

TILDREN INJECTION **Trade Name:**

Product Code: 58057

Product Use: For the treatment of lameness associated with bone and cartilage changes in horses.

Creation Date: March, 2016

This version issued: August, 2016 and is valid for 5 years from this date. Poisons Information Centre: Phone 13 1126 from anywhere in Australia

Section 2 - Hazards Identification

Statement of Hazardous Nature

This product is classified as: Not classified as hazardous according to the criteria of SWA.

Not a Dangerous Good according to Australian Dangerous Goods (ADG) Code, IATA or IMDG/IMSBC criteria.

SUSMP Classification: S4

ADG Classification: None allocated. Not a Dangerous Good according to Australian Dangerous Goods (ADG)

Code, IATA or IMDG/IMSBC criteria. **UN Number:** None allocated

GHS Signal word: NONE. Not hazardous.

PREVENTION

P102: Keep out of reach of children.

P262: Do not get in eyes, on skin, or on clothing.

P281: Use personal protective equipment as required.

RESPONSE

P353: Rinse skin or shower with water.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P370+P378: In case of fire, use carbon dioxide, dry chemical, foam, water fog.

STORAGE

P410: Protect from sunlight.

P402+P404: Store in a dry place. Store in a closed container.

P403+P235: Store in a well-ventilated place. Keep cool.

DISPOSAL

P501: Dispose of small quantities and empty containers by wrapping with paper and putting in garbage. For larger quantities, if recycling or reclaiming is not possible, use a commercial waste disposal service.

Emergency Overview

Physical Description & Colour: Freeze dried product: Compact freeze dried white powder.

Reconstituted solution; Clear, colorless liquid, free from visible suspended particles.

Odour: No data re odour.

Major Health Hazards: No significant risk factors have been found for this product. This is a physiologically active product and so contact should be minimised, especially if the user is taking a form of medication, as interactions can sometimes give unexpected and undesired results.

The following have been reported following treatment of horses: Tachycardia and Electrolyte disturbances: primarily calcium, magnesium, and potassium, which can last for several hours. Also kidney damage.

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Ingredients	CAS No	Conc,%	TWA (mg/m ³)	STEL (mg/m³)
Tiludronic acid (as disodium tiludronate)	89987-06-4	10g/L	not set	not set
Sodium chloride	7647-14-5	12.8g/L	not set	not set
Other non hazardous ingredients	secret	to 100	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

Note that the ingredients above are reconstituted in water for administration by injection.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Section 4 - First Aid Measures

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Inhalation: No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

Skin Contact: Gently brush away excess particles. Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 5 minutes or until chemical is removed.

Eye Contact: Quickly and gently brush particles from eyes. No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes. Take special care if exposed person is wearing

Ingestion: If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is no risk of an explosion from this product under normal circumstances if it is

Fire decomposition products from this product are likely to be irritating if inhaled.

Extinguishing Media: In case of fire, use carbon dioxide, dry chemical, foam, water fog. **Fire Fighting:** If a significant quantity of this product is involved in a fire, call the fire brigade.

Flash point: No data **Upper Flammability Limit:** No data. **Lower Flammability Limit:** No data. **Autoignition temperature:** No data. No data. Flammability Class:

Section 6 - Accidental Release Measures

Accidental release: This product is sold in small packages, and the accidental release from one of these is not usually a cause for concern. For minor spills, clean up, rinsing to sewer and put empty container in garbage. Although no special protective clothing is normally necessary because of occasional minor contact with this product, it is good practice to wear impermeable gloves when handling chemical products. In the event of a major spill, prevent spillage from entering drains or water courses and call emergency services.

Section 7 - Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed.

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The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Check packaging - there may be further storage instructions on the label.

Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

SWA Exposure Limits TWA (mg/m³) STEL (mg/m³)

Exposure limits have not been established by SWA for any of the significant ingredients in this product.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems. **Ventilation:** No special ventilation requirements are normally necessary for this product. However make sure that

the work environment remains clean and that dusts are minimised. **Eye Protection:** Eye protection such as protective glasses or goggles is recommended when this product is being used.

Skin Protection: You should avoid contact even with mild skin irritants. Therefore you should wear suitable impervious elbow-length gloves and facial protection when handling this product. See below for suitable material types.

Protective Material Types: We suggest that protective clothing be made from the following materials: cotton, rubber.

Respirator: If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable dust mask. Otherwise, not normally necessary.

Section 9 - Physical and Chemical Properties:

Physical Description & colour: Freeze dried product: Compact freeze dried white powder

Odour: No data re odour. Boiling Point: Not applicable.

Freezing/Melting Point: Decomposes before melting.

Volatiles:No specific data. Expected to be low at 100°C. **Vapour Pressure:**Negligible at normal ambient temperatures.

Vapour Density:

Specific Gravity:

Water Solubility:

Not applicable.

No data.

Soluble.

pH: 4.0-5.0 (when reconstituted)

Volatility: Negligible at normal ambient temperatures.

Odour Threshold:

Evaporation Rate:

Coeff Oil/water Distribution:

No data

Not applicable.

No data

Viscosity: Not applicable.

Autoignition temp: No data.

Section 10 - Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities: water, acids, bases, oxidising agents.

Fire Decomposition: Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds. Most will have a foul odour. May form oxides of phosphorus and other phosphorus compounds. May form hydrogen

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chloride gas, other compounds of chlorine. Sodium compounds. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Polymerisation: Polymerisation reactions are unlikely; they are not expected to occur.

Section 11 - Toxicological Information

Local Effects:

Target Organs: There is no data to hand indicating any particular target organs.

Classification of Hazardous Ingredients

Ingredient Risk Phrases

No ingredient mentioned in the HSIS Database is present in this product at hazardous concentrations.

Potential Health Effects

Inhalation:

Short Term Exposure: Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

Long Term Exposure: No data for health effects associated with long term inhalation.

Skin Contact:

Short Term Exposure: Available data indicates that this product is not harmful. It should present no hazards in normal use. However product may be irritating, but is unlikely to cause anything more than mild transient discomfort.

Long Term Exposure: No data for health effects associated with long term skin exposure.

Eye Contact:

Short Term Exposure: This product may be irritating to eyes, but is unlikely to cause anything more than mild transient discomfort.

Long Term Exposure: No data for health effects associated with long term eye exposure.

Ingestion:

Short Term Exposure: Significant oral exposure is considered to be unlikely. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.

Long Term Exposure: No data for health effects associated with long term ingestion.

Carcinogen Status:

SWA: No significant ingredient is classified as carcinogenic by SWA. NTP: No significant ingredient is classified as carcinogenic by NTP. **IARC:** No significant ingredient is classified as carcinogenic by IARC.

Section 12 - Ecological Information

Insufficient data to be sure of status. Expected to not be an environmental hazard.

Section 13 - Disposal Considerations

Disposal: Dispose of small quantities and empty containers by wrapping with paper and putting in garbage. For larger quantities, if recycling or reclaiming is not possible, use a commercial waste disposal service.

Section 14 - Transport Information

UN Number: This product is not classified as a Dangerous Good by ADG, IATA or IMDG/IMSBC criteria. No special transport conditions are necessary unless required by other regulations.

Section 15 - Regulatory Information

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations. The following ingredient: Tiludronic acid, is mentioned in the SUSMP.

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Section 16 - Other Information

This SDS contains only safety-related information. For other data see product literature.

Acronyms:

Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition) **ADG Code**

AICS Australian Inventory of Chemical Substances **SWA** Safe Work Australia, formerly ASCC and NOHSC Chemical Abstracts Service Registry Number CAS number

Hazchem Code Emergency action code of numbers and letters that provide information to emergency

services especially firefighters

IARC International Agency for Research on Cancer

NOS Not otherwise specified

NTP National Toxicology Program (USA)

R-Phrase Risk Phrase

SUSMP Standard for the Uniform Scheduling of Medicines & Poisons

UN Number United Nations Number

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 MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS 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.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous

Chemicals - Code of Practice" (December 2011) Copyright © Kilford & Kilford Pty Ltd, August, 2016.

http://www.kilford.com.au/ Phone (02)9251 4532