SAFETY DATA SHEET

According to
HSNO Hazardous Substances (Safety Data Sheets) Notice 2017

Section 1. Identification of the material and the supplier

Product:	**Extracta Herbicides Atrazine 500**
Substance:	Suspension concentrate of Atrazine
Chemical name of active ingred:	IUPAC Name: 6-chloro-N2-ethyl-N4-isopropyl-1,3,5-triazine-2,4-diamine CA Name: 6-chloro-N-ethyl-N'-(1-methylethyl)-1,3,5-triazine-2,4-diamine
Product Use:	Agricultural herbicide
Restriction of Use:	Refer to Section 15
New Zealand Supplier:	**Wholesale Seeds Limited**
Address:	5 Bryant Street, Ashburton, New Zealand
Telephone No:	03 307 9260
Emergency No:	**0800 CHEMCALL (0800243 622)**
Manufacturer:	**Danken New Zealand Ltd**
Address:	P.O. Box 16194 Hornby Christchurch, 8441
Telephone:	0800 326 536
Date of SDS Preparation:	21 May 2024

Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval No: HSR000534

Pictograms

Signal Word: **Warning**

GHS Classification and Category	Hazard Code	Hazard Statement
Acute oral toxicity Cat. 4	H302	Harmful if swallowed.
Specific target organ toxicity – repeated exposure Cat. 2	H373	May cause damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment acute Cat. 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment chronic Cat. 1	H410	Very toxic to aquatic life with long lasting effects.

Hazardous to soil organisms.	H423	Hazardous to soil organisms
Hazardous to terrestrial vertebrates.	H433	Hazardous to terrestrial vertebrates

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.
P260	Do not breathe vapours, mist or spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P314	Get medical advice/attention if you feel unwell.
P330	Rinse mouth.
P391	Collect spillage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Storage Code	Storage Statement
None allocated	

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Wt%	CAS NUMBER.
Atrazine	40-50	1912-24-9
Ethylene glycol	3-5	107-21-1
Non hazardous or ingredients not triggering final classification	To bal	

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes — Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice.

If on Skin — Wash off skin immediately with soap and plenty of water for 15 to 20 minutes. If skin irritation occurs: Get medical advice/attention.

If Swallowed — Wash out mouth thoroughly with water. Never give anything by mouth to an unconscious person. Call a POISON CENTER or doctor/physician if you feel unwell.

If Inhaled — Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms: Refer to Section 11 for full details.

Chronic: Harmful if swallowed. May cause damage to organs through prolonged or repeated exposure.

Notes to Doctor: There is no specific antidote available. Treat symptomatically.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable
Hazards from products	Combustion or thermal decomposition may evolve toxic and irritant vapors. Exposure to decomposition products may be a hazard to health.
Suitable Extinguishing media	Extinguish small fires with carbon dioxide, dry powder, or alcohol-resistant foam. Water spray can be used for larger fires or cooling of unaffected stock, but avoid the accumulation of polluted run-off from the site.
Precautions for firefighters and special protective clothing	Wear protective clothing and self-contained breathing apparatus. Do not allow run-off from firefighting to enter drains or water courses. Cool closed containers exposed to fire with water spray. Remove container from fire area if possible. Contain fire control water for later disposal. Use a recommended extinguishing agent for the type of surrounding fire. Avoid inhaling hazardous vapors. Keep upwind.
HAZCHEM CODE	**3Z**

Section 6. Accidental Release Measures

Wear personal protective equipment detailed in Section 8. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing vapours and mist.

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Absorb with absorbent material . put into a suitable, closed containers for disposal. Dispose of in compliance with local and/or national regulations or as per Section 13.

Section 7. Handling and Storage

Precautions for Handling:

- Read carefully and follow all instructions.
- Do not breathe vapours, mist or spray.
- Do not eat, drink or smoke when using this product.
- Avoid release to the environment.
- Avoid contact with eyes, prolonged contact with skin, and inhalation of dust.
- Use with adequate ventilation.
- Wash hands before eating, drinking, chewing gum, smoking, or using the toilet.
- Remove clothing immediately if the herbicide gets inside, then wash skin thoroughly using a non-abrasive soap and put on clean clothing.
- Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep out of reach of children.
- Store in its original labeled container in shaded, well-ventilated area, away from heat, sparks and other sources of ignition.
- Not to be stored next to foodstuffs and water supplies.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	**TWA ppm**	**TWA mg/m³**	**STEL ppm**	**STEL mg/m³**
Ethylene glycol (vapour and mist) [107-21-1]	Ceiling 50	127		

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or

narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices Nov 2023 14TH EDITION.

Acceptable Daily Intake (ADI):
aRfD 0.1, cRfD 0.018 mg/kg b.w; cRfD for hydroxytriazine metabolite 0.01mg/kg b.w

No-observable-effect-level (NOEL):
Rats (2 y) 70ppm (3.5mg/kg daily); Dogs 150mg/kg diet (5.0mg/kg daily)
Mice 10mg/kg diet (1.4mg/kg daily)

Engineering Controls
Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of workday.

Personal Protection Equipment

Eyes	Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used.
Hands	The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when handling this product.
Skin	Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory	For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
General	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Section 9 Physical and Chemical Properties

Appearance	Viscous Liquid
Colour	Off white
Odour	Not available
Odour Threshold	Not available
pH	Not avaialble
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Not flammable
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not applicable for the end-use product, refer to the active substance, 3.85 × 10-2mPa (25°C)(atrazine)
Vapour Density	Not available
Relative Density	Not available
Water Solubility	Miscible with water.
Partition Coefficient:	Not applicable for the end-use product, refer to the active substance, Kow logP=2.5 (25°C)
Auto-ignition Temperature	Not available

Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not available

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Possibility of hazardous reactions	No data available
Conditions to Avoid	Moisture, high temperature, direct sunlight.
Incompatible Materials	Strong basic and acids.
Hazardous Decomposition Products	Other decomposition products - No data available. In the event of fire: see section 5

Section 11 Toxicological Information

Acute Effects:

Swallowed	Harmful if swallowed.
Dermal	Not triggered as hazardous.
Inhalation	Not triggered as hazardous.
Eye	Not triggered as hazardous.
Skin	Not triggered as hazardous.

Chronic Effects:

Carcinogenicity	Not triggered as hazardous.
Reproductive Toxicity	Not triggered as hazardous.
Teratogenic Effects	Not triggered as hazardous.
Germ Cell Mutagenicity	Not triggered as hazardous.
Aspiration	Not triggered as hazardous.
STOT/SE	Not triggered as hazardous.
STOT/RE	May cause damage to organs through prolonged or repeated exposure.

There is no data available for the formulation type, so the technical information is listed for the reference.

Acute Oral Rats: LD50 1869–3090mg tech./kg
Mice: LD50>1332–3992mg/kg
Inhalation Rats: LC50 (4 h) >5.8 mg/L air

Skin and Eye Rats: Acute percutaneous LD50>3100mg/kg
Rabbits: None irritating to skin, minimally irritating to eyes.

Skin sensitization
Skin sensitiser in guinea pigs, but not in humans. Overall conclusion: Skin sensitiser.

Chronic toxicity
Some 40% of rats receiving oral doses of 20 mg/kg/day for 6 months died with signs of respiratory distress and paralysis of the limbs. Structural and chemical changes in the brain, heart, liver, lungs, kidney, ovaries, and endocrine organs were observed. Rats fed 5 or 25 mg/kg/day of atrazine for 6 months exhibited growth retardation. In a 2-year study with dogs, 7.5 mg/kg/day caused decreased food intake and increased heart and liver weights. At 75 mg/kg/day, there were decreases in food intake and body weight gain, increased adrenal weight, lowered blood cell counts, and occasional tremors or stiffness in the rear limbs.

Reproductive effects
Dietary doses of atrazine given to rats on days 3, 6 and 9 of gestation up to about 50 mg/kg/day caused no adverse reproductive effects.

Teratogenic effects
Atrazine does not appear to be teratogenic. In mice, atrazine did not cause abnormalities in fetuses whose dams were given doses of 46.4 mg/kg/day during days 6 through 14 of gestation.

Mutagenic effects
The weight of evidence from more than 50 studies indicates that atrazine is not mutagenic.

Carcinogenic effects
Atrazine did not cause tumors when mice were given oral doses of 21.5 mg/kg/day from age 1 to 4 weeks, followed by dietary doses of 82 mg/kg for an additional 17 months. However, mammary tumors were observed in rats after lifetime administration of high doses of atrazine. Thus, available data regarding atrazine's carcinogenic potential are inconclusive.

Organ toxicity
Lethal doses of atrazine in test animals have caused congestion and/or hemorrhaging to the lungs, kidneys, liver, spleen, brain, and heart. Long-term consumption of high levels of atrazine has caused tremors, changes in organ weights, and damage to the liver and heart.

Section 12. Ecotoxicological Information

Very toxic to aquatic life with long lasting effects.
Hazardous to soil organisms.
Hazardous to terrestrial vertebrates.

Product:	
Persistence and degradability	No data available.
Bioaccumulation	Bioaccumulation Tilapia sparrmanii-4 Weeks -3.380 µg/l Bioconcentration factor (BCF): 6.1
Mobility in Soil	Highly mobile in soil.

Eco Toxicity (ePM):

Route	Species	Duration	Value LC50/EC50
Fish	Rainbow trout Bluefill Sunfish Crucian Carp Catfish Guppies	96 hr 96 hr 96 hr 96 hr 96 hr	4.5 - 11 mg/L 16 mg/L 76 mg/L 7.6 mg/L >4.3 mg/L
Daphnia	Daphnia Magna Ceriodaphna dubia	48 hr 48 hr	29 mg/L 4.9 mg/L
Algae	Selenastrum capricornutum Scenedesmus Subspicatus	96 hr 72 hr	0.01 mg/L 0.043 mg/L
Bees	Bees	-	Oral = >97µg/bee Contact = >100µg/bee
Worms	Eisenia Foetida	14 days	>78 mg/kg
Bird	Mallard Ducks Japanese Quail Bobwhite quail	8 days 8 days 8 days	Acute Oral:LD50: >2000 mg/kg Acute Oral: 4237 mg/kg (adult) Dietary: LC50:>5000 mg/kg (chicks) Dietary: LC50 >5000 mg/kg (adults) Acute oral: LD50 940 mg/kg
Other Aquatic spp			Long-term studies in aquatic ecosystems indicate no permanent damage up to 0.020mg/l.

Do not allow to enter drains or water courses.

Section 13. Disposal Considerations

Disposal Method:
Triple or preferably pressure rinse containers before disposal. Add rinsing to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection paint. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill available, bury the containers below 500mm 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 washings, contaminated materials, used absorbents and other waste materials as directed by local regulations.
Precautions or methods to avoid: Avoid release to the environment.

Section 14 Transport Information

This product is classified as a Dangerous Good for transport in NZ; NZS 5433:2020 and SNZ HB 5433:2021

Road, Rail, Sea and Air Transport

UN No	3082
Class - Primary	9
Packing Group	III
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (Atrazine)
Marine Pollutant	Yes
Special Provisions	If the product's individual container is below 5kg, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

Section 15 Regulatory Information

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval Code: HSR000534

HSW (HS) Regulations 2017 and EPA Notices	**Trigger Quantity**
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	100L
Emergency Response Plan	100L
Secondary Containment	100L
Restriction of Use:	Use only for intended use.
ACVM Registration Number	P10134

Section 16 Other Information

Glossary

Cat	Category
EC_{50}	Median effective concentration.
EEL	Environmental Exposure Limit.

EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC_{50}	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD_{50}	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2023 14th edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact the New Zealand distributor, if further information is required.

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