



SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **Rifle EC**
Chemical name of active(s) Desmedipham + Phenmedipham
Product Use: Herbicide
Restriction of Use: Refer to Section 15

New Zealand Supplier: ADAMA New Zealand Ltd
Address: Level 1/93 Bolt Road
Tahunanui, 7011, Nelson
Telephone: +64 3 543 8275
E-mail: nzorders@adama.com

Emergency Telephone: **0800 764 766 (National Poison Centre)**
0800 734 607 (24hr Emergency Response)

Date of SDS Preparation: 11 March 2025

Section 2. Hazards Identification

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

HSNO Approval No: HSR101207

Pictograms



Signal Word: **WARNING**

| HSNO Classification | Hazard Code | Hazard Statement |
|---|-------------|--|
| Flammable liquid Category 4 | H227 | Combustible liquid |
| Eye irritation Category 2 | H319 | Causes serious eye irritation |
| Skin sensitisation Category 1 | H317 | May cause an allergic skin reaction. |
| Specific target organ toxicity (repeated exposure) Category 2 | H373 | May cause damage to organs through prolonged or repeated exposure. |
| Hazardous to the aquatic environment acute Category 1 | H400 | Very toxic to aquatic life. |
| Hazardous to the aquatic environment chronic Category 1 | H410 | Very toxic to aquatic life with long lasting effects. |
| Hazardous to soil organisms | H421 | Harmful to the soil environment. |

| Prevention Code | Prevention Statement |
|-----------------|---|
| P102 | Keep out of reach of children. |
| P103 | Read label carefully and follow all instructions. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. |



| | |
|------|--|
| P260 | Do not breathe spray mist or vapour. |
| P264 | Wash exposed skin thoroughly after handling. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |
| P273 | Avoid unintended release into the environment. |
| P280 | Wear protective clothing as detailed in Section 8. |

| Response Code | Response Statement |
|----------------------------------|--|
| P101 | If medical advice is needed, have product container or label at hand. |
| P302 + P313 + P333 + P352 | IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs, get medical attention. |
| P305 + P313 + P337 + P338 + P351 | 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 attention. |
| P362 + P364 | Take off contaminated clothing and wash before re-use. |
| P370 + P378 | In case of fire: Use dry chemical, water spray, foam or carbon dioxide for extinction. |
| P391 | Collect spillage. |

| Storage Code | Storage Statement |
|--------------|--|
| P403 | Store in a well-ventilated place. |
| | Store locked up in the original, unopened container in a cool, dry, well-ventilated place, out of direct sunlight and away from stockfeed or foodstuffs. As a substance with aquatic ecotoxicity classifications, storage of Rifle EC must be carried out in such a manner as to prevent contamination of waterways. It is recommended that The New Zealand Standard for the Management of Agrichemicals (NZS8409) is followed. |

| Disposal Code | Disposal Statement |
|---------------|---|
| P501 | Wherever possible completely use material by using according to label instructions. Dispose of unwanted product and wastes from spillages as hazardous substances in accordance with local and national regulations using a licensed waste disposal company. Triple rinse containers and add rinsate to spray tank before puncturing and offering for recycling or landfill. Do not allow product to enter waterways. Do not burn product or container. |



Section 3. Composition / Information on Ingredients

| Ingredients | Wt % | CAS NUMBER. |
|--------------|---------|-------------|
| Desmedipham | 160 g/L | 13684-56-5 |
| Phenmedipham | 160 g/L | 13684-63-4 |

Section 4. First Aid Measures

Routes of Exposure:

- If in Eyes** Seek medical assistance immediately. Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If on Skin** Take off contaminated clothing and wash before re-use. Wash off immediately with soap and plenty of water. If skin irritation or rash occurs: Get medical advice/attention.
- If Swallowed** Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting. Seek medical assistance immediately.
- If Inhaled** Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:

- Ingestion:** Not applicable.
- Skin:** May cause an allergic skin reaction
- Inhalation:** Not applicable.
- Eyes:** Causes serious eye irritation.
- Chronic:** May cause damage to organs through prolonged or repeated exposure.

Notes to physician: There is no specific antidote. Treat symptomatically and give supportive therapy.

Section 5. Fire Fighting Measures

| | |
|---|--|
| Hazard Type | Combustible. |
| Hazardous thermal (de)composition products | In case of fire the following can develop. Oxides of carbon, oxides of nitrogen, oxides of phosphorus, oxides of sulphur and toxic pyrolysis products. |
| Suitable Extinguishing media | Water jet spray/foam/CO2/dry extinguisher. |
| Precautions for firefighters and special protective clothing | Self-contained breathing apparatus and total protection required in enclosed areas. |
| HAZCHEM CODE | 2X |



Section 6. Accidental Release Measures

Wear full protective clothing as detailed in Section 8. Evacuate area from unnecessary personnel. Keep away from: open flame, sparks and heat.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Absorb remainder in sand or other inert material. Dispose of container in a suitable landfill or take to an Agrecovery collection site.

Section 7. Handling and Storage

Precautions for Handling:

- Read label carefully and follow all instructions.
- Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
- Do not breathe fumes, vapours or spray.
- Wash exposed skin thoroughly after handling.
- Contaminated work clothing should not be allowed out of the workplace.
- Avoid unintended release into the environment.
- Wear protective clothing as detailed in Section 8.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep away from children.
- Keep only in the original container. Keep in a cool, dry, well-ventilated place away from direct sunlight.
- As a substance with aquatic ecotoxicity classifications, storage of Rifle EC must be carried out in such a manner as to prevent contamination of waterways. It is recommended that The New Zealand Standard for the Management of Agrichemicals (NZS8409) is followed.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

| Substance | TWA | | STEL | |
|-----------|-----|-------|------|-------|
| | ppm | mg/m3 | ppm | mg/m3 |

No ingredients have exposure limits.

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 2017 9TH EDITION.

Engineering Controls

Ensure adequate ventilation.



Personal Protection Equipment

| | |
|-----------------------|--|
| Eyes | Safety goggles or face shield. Avoid wearing contact lenses. |
| Hands and Skin | Wear chemical resistant gloves, suitable protective clothing and chemical resistant boots. |
| Respiratory | In case of insufficient ventilation, wear suitable respiratory equipment. Chemical respirator with organic vapor cartridge. |
| General | Change work clothes daily. May damage the eyes and irritate skin. Avoid contact with eyes and skin. Do not intake dust or spray mist. If product gets on skin immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. |

Section 9 Physical and Chemical Properties

| | |
|--|------------------------|
| Appearance | Yellow to amber liquid |
| Odour | Very slightly odour |
| Odour Threshold | No data available |
| pH | 2-5 |
| Boiling Point | No data available |
| Melting Point | No data available |
| Flash Point | > 60 °C and ≤ 93 °C |
| Evaporation rate | No data available |
| Flammability (solid, gas) | No data available |
| Upper and Lower Exposure Limits | No data available |
| Explosive properties | No data available |
| Vapour Pressure | No data available |
| Density | 1.01 |
| Relative Density | No data available |
| Solubilities in water | No data available |
| Octanol/water partition coefficient | No data available |
| Auto-ignition Temperature | Does not ignite |
| Decomposition temperature | No data available |
| Viscosity | No data available |

Section 10. Stability and Reactivity

| | |
|---|--|
| Stability of Substance | This product is stable under normal conditions. |
| Conditions to Avoid | Extremes of temperature and direct sunlight. |
| Incompatible Materials | Oxidizing agents, acids and alkali. |
| Hazardous Decomposition Products | No decomposition products expected under normal conditions of use. |



Section 11 Toxicological Information

Acute Effects:

| | |
|-------------------|--|
| Swallowed | Not applicable. Acute oral LD50: > 2500 mg/kg in the rat |
| Dermal | Not applicable. Acute dermal LD50: > 2000 mg/kg in the rat |
| Inhalation | Not applicable. Acute inhalation LC50: > 5 mg/l at 4h in the rat |
| Eye | Causes serious eye irritation. |
| Skin | May cause an allergic skin reaction. |

Chronic Effects:

| | |
|-------------------------------|--|
| Carcinogenicity | Not applicable. |
| Reproductive Toxicity | Not applicable. |
| Germ Cell Mutagenicity | Not applicable. |
| Aspiration | Not applicable. |
| STOT/SE | Not applicable. |
| STOT/RE | <p>May cause damage to organs through prolonged or repeated exposure.</p> <p>Desmedipham caused methaemoglobinaemia, haemolytic anaemia in animal studies. The observed effects do not appear to be relevant for humans.</p> <p>Phenmedipham caused haemolytic anaemia, methaemoglobinaemia in animal studies. The observed effects do not appear to be relevant for humans.</p> |

Section 12. Ecotoxicological Information

HSNO Classifications: Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to soil organisms.

| | |
|--------------------------------------|-------------------|
| Persistence and degradability | No data available |
| Bioaccumulation | No data available |
| Mobility in Soil | No data available |
| Other adverse effects | No data available |

Ecotoxicity:

Ecotoxicity data for Phenmedipham (active):

Birds: Acute oral LD50 for chickens >2500, mallard ducks >2100 mg/kg.
 Fish: LC50 (96 h) for rainbow trout 1.4–3.0, bluegill sunfish 3.98 mg/l.
 Daphnia: LC50 (72 h) 3.8 mg/l.
 Algae: IC50 (96 h) 0.13 mg/l.
 Bees: Not toxic to bees; LD50 (oral) >23 µg/bee; (contact) 50 µg/bee.
 Worms: EC50 (14 d) >156 mg/kg soil.

Ecotoxicity data for Desmedipham (active):

Birds: LC50 (14 d) for bobwhite quail and mallard ducks >2000 mg/kg.
 Fish: LC50 (96 h) for rainbow trout 1.7, bluegill sunfish 3.2 mg/l.
 Daphnia: LC50 (48 h) 1.88 mg/l.
 Algae: IC50 (72 h) 0.061 mg/l.
 Bees: Not toxic to bees; LD50 >50 µg/bee.
 Worms: LC50 (14 d) 466.5 mg/kg dry soil.



Section 13. Disposal Considerations

Disposal Method: Wherever possible completely use material by using according to label instructions. Dispose of unwanted product and wastes from spillages as hazardous substances in accordance with local and national regulations using a licensed waste disposal company. Triple rinse containers before puncturing and offering for recycling or landfill.



Precautions: Do not allow product to enter waterways.

Disposal methods to avoid: Do not burn product or container.

Section 14 Transport Information

This product is classified as a Dangerous Good for transport in NZ; NZS 5433



Road and Rail Transport

| | |
|-----------------------|--|
| UN No: | 3082 |
| Class-primary | 9 |
| Packing Group | III |
| Proper Shipping Name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Desmedipham, Phenmedipham) |

Air Transport

| | |
|-----------------------|--|
| UN No: | 3082 |
| Class-primary | 9 |
| Packing Group | III |
| Proper Shipping Name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Desmedipham, Phenmedipham) |

Marine Transport

| | |
|-----------------------|--|
| UN No: | 3082 |
| Class-primary | 9 |
| Packing Group | III |
| Proper Shipping Name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Desmedipham, Phenmedipham) |
| Marine Pollutant: | Yes |

Special Provisions:

If the product’s individual container is below 5L, 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 hazardous according to the Hazardous Substances (Hazard Classification) Notice 2020

HSNO Approval Code: HSR101207

HSNO Classification: Flammable liquid Category 4, Eye irritation Category 2, Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to soil organisms.

| HSW (HS) Regulations 2017 and EPA Notices | Trigger Quantity |
|--|--|
| Certified Handlers | Not required |
| Location Certificate | Not required |
| Tracking Trigger Quantities | Not required |
| Signage Trigger Quantities | 100 L |
| Emergency Response Plan | 100 L |
| Secondary Containment | 100 L |
| HSNO Varied/Additional Controls | |
| Variation to Hazardous Property Controls Notice Part 4B | The maximum application rate of this substance is 720 g of desmedipham/ha and 720 g of phenmedipham/ha. This substance may be applied up to two times per year. A minimum interval of 10 days must be observed between applications. |
| Application method restrictions | This substance must be applied using ground-based methods only. |
| Hazardous Property Controls Notice 2017 | |
| HPC Notice Part 1 | Hazardous Property Controls preliminary provisions |
| HPC Notice Part 3 | Hazardous substances in a place other than a workplace |
| HPC Notice Part 4 Subpart A | Substances that are hazardous to the environment: Site and storage controls |
| HPC Notice Part 4 Subpart B | Use of substances that are hazardous to the environment |
| HPC Notice Part 4 Clause 47 | Equipment for environmentally hazardous substances must be appropriate |
| HPC Notice Part 4 Clause 48 | Records of application of ecotoxic pesticides and plant growth regulators |
| HPC Notice Part 4 Clause 52 | Agrichemicals that are hazardous to the aquatic environment must not be applied to water |
| HPC Notice Part 4 Subpart C | Qualifications required for the application of substances that are hazardous to the environment |
| ACVM Act and Regulations | |
| Registered pursuant to the ACVM Act 1997, See www.nzfsa.govt.nz/acvm for registration conditions | P010321 |



Section 16

Other Information

Glossary

| | |
|----------------------|---|
| ACVM | Agricultural Compounds and Veterinary Medicines Act 1997. |
| EC50 | Median effective concentration. |
| EEL | Environmental Exposure Limit. |
| EPA | Environmental Protection Authority. |
| HSNO | Hazardous Substances and New Organisms Act 1996. |
| HSW | Health and Safety at Work Act 2015. |
| HSW (HS) Regulations | Health and Safety at Work (Hazardous Substances) Regulations 2017. |
| LC50 | Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it. |
| LD50 | Lethal dose to kill 50% of test animals/organisms. |
| LEL | Lower explosive level. |
| 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 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer:

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