SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product:	**Adapt Herbicide**
Chemical Name of Active Ing:	NICOSULFURON 2-[4,6-dimethoxy-2-pyrimidinyl)amino]carbonaonyl] amino]sulfonyl] -N,N-dimethyl-3-pyridinecarboxamide
Product Use:	Herbicide
Restriction of Use:	Refer to Section 15
New Zealand Supplier:	ADAMA New Zealand Ltd
Address:	Level 1/93 Bolt Road Tahunanui, Nelson
Telephone:	+64 3 543 8275
Email:	nzorders@adama.com
Emergency Telephone:	**0800 764 766 (National Poison Centre)** **0800 734 607 (24hr Emergency Response)**
Date of SDS Preparation:	16 June 2022

Section 2. Hazards Identification

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

EPA Approval No: HSR100821

Pictograms

Signal Word: **Warning**

HSNO Classification	Hazard Code	Hazard Statement
Hazardous to the aquatic environment acute Category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment chronic Category 1	H411	Very toxic to aquatic life with long lasting effects.
Hazardous to soil organisms	H421	Very toxic to the soil environment.

Prevention Code	Prevention Statement
P103	Read label before use.
P273	Avoid unintended release into the environment.

Response Code	Response Statement
P391	Collect spillage.

Storage Code	Storage Statement
None allocated	

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.
Nicosulfuron	72.5 – 77.5	111991-09-4
Other non-hazardous ingredients	To bal	-

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes — Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15 minutes or until the product is removed, while holding the eyelid(s) open. If eye irritation persists: Get medical advice.

If on Skin — Remove contaminated clothing and wash before reuse. Wash away remainder with water and soap followed by a warm water rinse.

If Swallowed — If swallowed wash out mouth thoroughly with water. Never give anything to the mouth of an unconscious person. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs.

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. Apply artificial respiration if not breathing. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed
Symptoms:
Ingestion: Not applicable.
Inhalation: Not applicable.
Skin: Not applicable.
Eye: Not applicable.
Chronic: Not applicable.

Section 5. Fire Fighting Measures

Hazard Type	Non-Flammable
Hazards from products	Sulfur oxides, nitrogen oxides, (NO, NO2), carbon oxides (CO, CO2)
Suitable Extinguishing media	For small fire: dry chemical powder, water spray carbon dioxide For large fire: Foam, water fog, water spray
Precautions for firefighters and special protective clothing	Self-contained breathing apparatus and total protection required in enclosed areas.
HAZCHEM CODE	**2Z**

Section 6. Accidental Release Measures

Wear appropriate protective clothing. (See section 8). Evacuate all unnecessary personnel.

Environmental precautions
In the event of a major spill, prevent spillage from entering into drains and water courses.

Methods and material for containment and cleaning up
Collect and contain as much free liquid as possible. Absorb remainder in sand or other inert material. Sweep up solids without creating dust. Place into a clean container and cover the container loosely for later disposal.
Dispose as per Section 15.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Avoid unintended release into the environment.
- Collect spillages.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Store in the original, unopened container in a cool, dry place, out of direct sunlight and away from foodstuffs, fertilisers and seeds.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

	TWA		STEL	
Substance	**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
Ventilation required.

Personal Protection Equipment

Eyes	Safety goggles or face shield.
Hands and Skin	Wear chemical resistant gloves, protective clothing and boots.
General	Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower. Wash hands thoroughly after handling. When using do not eat, drink, or smoke. Wash clothing separately before re-use.

Section 9 Physical and Chemical Properties

Appearance	Beige Granules
Odour	Faint odour
Odour Threshold	Not applicable
pH	Not applicable
Boiling Point	Not applicable
Melting Point	Nicosulfuron: 169-174°C
Flash Point	Not applicable
Flammability	Not flammable
Upper and Lower Exposure Limits	Not applicable
Vapour Pressure	Nicosulfuron: <8 e-7@ 25 °C
Specific Gravity	(H^20 = 1) 1.13 – 1.14
Solubilities	Dispersible
Log P Octanol/water 20 oC	Nicosulfuron: 0.32 (pH 4)
Auto-ignition Temperature	Not applicable
Kinematic viscosity mm2/s 40 °C	Not applicable
Particle Characteristics	Not applicable
Volatiles	Not applicable

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Reactivity	None known.
Conditions to Avoid	Protect from (sun) light, open flame sources of heat and humidity
Incompatible Materials	Oxidizing agents, acids, alkali
Hazardous Decomposition Products	Sulfur oxides, nitrogen oxides, (NO, NO2), carbon oxides (CO, CO2)

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable.
Dermal	Not applicable.
Inhalation	Not applicable.
Skin	Not applicable.
Eye	Not applicable.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Not applicable.

Common name: Nicosulfuron

Acute toxicity - Oral:	LD50 > 2,000 mg/kg (rat)
Acute toxicity - Dermal:	LD50 > 5,000 mg/kg (rat)
Acute toxicity – Inhalation:	LD50 > 5.15 mg/l/4h (rat) Nicosulfuron
Skin irritation:	Non irritating (rabbit).
Eye irritation:	Minimal irritating (rabbit).
Sensitization:	Non sensitizer
Carcinogenicity:	Not classified (Nicosulfuron)
Mutagenicity:	Not mutagenic (Nicosulfuron)
Toxic for reproduction: Fertility:	Not considered to be toxic for the reproductive system (Nicosulfuron)
Toxic for reproduction:	Not teratogenic in animal experiments (Nicosulfuron)

Section 12. Ecotoxicological Information

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

Ecological effects information:

Common name:	Nicosulfuron	
On product		
96 H-LC50 –	Rainbow trout [mg/l]:	>100
48 H-EC50 –	Daphnia magna [mg/l]:	> 100 (Nicosulfuron)
96 H-EC50-	algae [mg/l]: NOEC;	100 (Nicosulfuron)
LD50 Birds [mg/kg]:	Japanese quail	> 2,000
Bees LD50 [µg]:	Not toxic to bees	

Persistence – degradability: Soil: Half-life time (t½): 16 days
Water: Half-life tine (t½): (hydrolysis): 15 days (pH5)
Bioaccumulative potential: Low bioaccumulation potential
Other information: Very toxic to LEMNA

Persistence and degradability	No data available on product
Bioaccumulation	No data available on product
Mobility in Soil	No data available on product
Other adverse effects	No data available on product

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:	3077
Class-primary	9
Packing Group	III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, (nicosulfuron)

Air Transport

UN No:	3077
Class-primary	9
Packing Group	III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, (nicosulfuron)

Marine Transport

UN No:	3077
Class-primary	9
Packing Group	III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, (nicosulfuron)
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 hazardous according to the Hazardous Substances (Hazard Classification) Notice 2020

HSNO Approval Code: HSR100821

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

HSW (HS) Regulations 2017	**Trigger Quantity/Regulation**
Part 4 Certified Handlers and supervision and training of workers	HSW Reg 4.5 – 4.6 Information, instruction, training and supervision.
Location Certificate	Not required
Signage Trigger Quantities	100kg
Emergency Response Plan	100kg
Secondary Containment	100kg
Tracking	Not required
HSNO Varied/Additional Controls	
Variation to Hazardous Property Controls Notice Part 4B	Adapt must only be applied to a treatment area once per year. Each application of Adapt must not exceed an application rate of 82.5 g ai/ha.
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	
ACVM Approval No See www.foodsafety.govt.nz for registration controls	P8662

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.
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:

This document has been issued by Adama New Zealand Ltd and serves as their Safety Data Sheet ('SDS'). It is based on information concerning the product which is held by Adama New Zealand Ltd or has been obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. While Adama New Zealand Ltd have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, Adama New Zealand Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS. The information herein is given in good faith, but no warranty, express or implied is made.

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