



## SAFETY DATA SHEET

### Section 1. Identification of the material and the supplier

Product: **ACIERTO**  
Name of active ingredient: Acetochlor  
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  
Email: nzorders@adama.com

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

Date of SDS Preparation: 9 November 2023

### Section 2. Hazards Identification

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

**HSNO Approval No:** HSR101427

#### Pictograms



Signal Word: **Warning**

HSNO Classification	Hazard Code	Hazard Statement
Flammable liquid Category 4	H227	Combustible liquid.
Acute oral toxicity Category 4	H302	Harmful if swallowed.
Acute inhalation toxicity Category 4	H332	Harmful if inhaled.
Skin irritation Category 2	H315	Causes skin irritation.
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 (oral) 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	Very toxic to the soil environment.
Hazardous to terrestrial vertebrates	H433	Harmful to terrestrial vertebrates.

<b>Prevention Code</b>	<b>Prevention Statement</b>
P102	Keep out of reach of children.
P103	Read label before use.
P210	Keep away from heat, sparks, open flames or hot surfaces. No smoking.
P260	Do not breathe fumes, mist, vapours or spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
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.

<b>Response Code</b>	<b>Response Statement</b>
P101	If medical advice is needed, have product container or label at hand.
P301 + P312 + P330	IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P313 + P333 + P352	IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
P304 + P312 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
P305 + 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 advice/attention.
P362 + P364	Take off contaminated clothing and wash before re-use.
P370 + P378	In case of fire: Use Dry chemical, foam, carbon dioxide for extinction.
P391	Collect spillage.

<b>Storage Code</b>	<b>Storage Statement</b>
P403	Store in a well-ventilated place.

<b>Disposal Code</b>	<b>Disposal Statement</b>
P501	Wherever possible completely use material 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**

<b>Ingredients</b>	<b>Wt%</b>	<b>CAS NUMBER.</b>
Acetochlor	80-85	34256-82-1
Solvent napha light aromatic (Low boiling point)	2-3	64742-95-6
Other ingredients not contributing to the overall classification of the substance or non hazardous	To balance	NA

#### Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
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	Wash out mouth with plenty of water. Get medical attention. 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. 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:

<b>Ingestion:</b>	Harmful if swallowed.
<b>Skin:</b>	Causes skin irritation. May cause an allergic skin reaction.
<b>Inhalation:</b>	Harmful if inhaled.
<b>Eyes:</b>	Causes serious eye irritation.
<b>Chronic:</b>	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

<b>Hazard Type</b>	Combustible.
<b>Hazardous thermal (de)composition products</b>	Chloride compounds, carbon dioxide and nitrogen oxides
<b>Suitable Extinguishing media</b>	Use Dry chemical, foam, carbon dioxide.
<b>Precautions for firefighters and special protective clothing</b>	Wear suitable protective clothing, gloves and eye/face protection, Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Exercise caution when fighting any chemical fire. In care of insufficient ventilation wear suitable respiratory equipment.
<b>HAZCHEM CODE</b>	<b>3Z</b>

#### Section 6. Accidental Release Measures

Wear full protective clothing as detailed in Section 8. Evacuate area from unnecessary personnel. Remove sources of ignition.

##### 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

Contain the spill by damming, recover spilt product by absorbing with sawdust or an inert absorbent material then transfer the recovered spilt material to a properly labelled drum. Deal with all spillages immediately. Dispose of according to Local Regulations.

## Section 7. Handling and Storage

### Precautions for Handling:

- Read label before use.
- Do not breathe fumes, mist, vapours or spray.
- Wash hands thoroughly after handling.
- Keep away from heat, sparks, open flames or hot surfaces. No smoking.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Contaminated work clothing should not be allowed out of the workplace.
- Clean protective clothing daily after work.
- Avoid unintended release into the environment.
- When mixing or applying, wear overalls, chemical resistant boots and gloves, eye protection and respirator (organic vapour and particulate matter).

### Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep away from children.
- Store in original container tightly closed and in a locked dry, cool, well ventilated area, away from foodstuffs.
- Store in accordance with NZS 8409 Management of Agrichemicals.
- Stores containing 100 litres of ACIERTO require secondary containment and signage, and more than 100 litres require emergency response plans.
- Keep container tightly closed in a dry and well-ventilated place.

## Section 8 Exposure Controls / Personal Protection

### WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>

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



<b>Eyes</b>	Safety goggles or face shield. Avoid wearing contact lenses.
<b>Hands and Skin</b>	Wear chemical resistant gloves, suitable protective clothing and boots.
<b>Respiratory</b>	Respiratory protection is not required if good ventilation is maintained.
<b>General</b>	When handling do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before re-use.

**Section 9 Physical and Chemical Properties**

<b>Appearance</b>	Violet Liquid
<b>Odour</b>	Aromatic
<b>Odour Threshold</b>	Not applicable
<b>pH</b>	5-7
<b>Boiling Point</b>	Not applicable
<b>Melting Point</b>	Not applicable
<b>Flash Point</b>	92°C
<b>Flammability</b>	Combustible
<b>Upper and Lower Exposure Limits</b>	Not applicable
<b>Vapour Pressure</b>	6 mPa @ 25°C (Acetochlor)
<b>Density</b>	1.093 +/-0.015 g/mL @ 20°C
<b>Bulk Density</b>	Not applicable
<b>Relative Density</b>	Not applicable
<b>Solubilities</b>	Not applicable
<b>Auto-ignition Temperature</b>	Not applicable
<b>Octanol/water partition coefficient</b>	log P = 4.14 (Acetochlor)

**Section 10. Stability and Reactivity**

<b>Stability of Substance</b>	This product is stable under normal conditions.
<b>Conditions to Avoid</b>	Keep away from sources of ignition.
<b>Incompatible Materials</b>	Oxidizing agents, acids and alkali.
<b>Hazardous Decomposition Products</b>	Chloride compounds, carbon dioxide and nitrogen oxides.

**Section 11 Toxicological Information****Acute Effects:**

<b>Swallowed</b>	Harmful if swallowed. LD50 (rat)= 2,000 mg/kg
<b>Dermal</b>	Not hazardous. LD50 (rabbit) > 4,000 mg/kg
<b>Inhalation</b>	Harmful if inhaled. = LC50 (rat) > 2.7 mg/L (maximum attainable concentration) (4 hours)
<b>Eye</b>	Causes severe eye irritation.
<b>Skin</b>	Causes skin irritation. May cause an allergic skin reaction.

**Chronic Effects:**

<b>Carcinogenicity</b>	Not applicable.
<b>Reproductive Toxicity</b>	Not applicable.
<b>Germ Cell Mutagenicity</b>	Not applicable.
<b>Aspiration</b>	Not applicable.
<b>STOT/SE</b>	Not applicable.
<b>STOT/RE</b>	May cause damage to organs through prolonged or repeated exposure.

## Section 12. Ecotoxicological Information

<b>Persistence and degradability</b>	No data available
<b>Bioaccumulation</b>	No data available
<b>Mobility in Soil</b>	No data available
<b>Other adverse effects</b>	No data available

### **Aquatic Toxicity- Acetochlor**

Ecotoxicity: 96H-LC50 - Rainbow trout [mg/l] 0.983  
48 Hour – EC50 - Daphnia magna [mg/l]: 12.5  
72h – EC50 - Algae [mg/l]: 0.00261  
LD50 Birds [mg/kg]: 646 Bobwhite quail  
Birds LC50 [ppm] >2000 Mallard duck  
Bees LC50 [µ/Bee] Not Toxic to bees

Mobility: Soil –Moderately mobile

Persistence/degradability: Soil: Moderately persistent in soil  
Half-life time (t1/2): 8-18 days Readily absorbed in soil

### **Water**

Half-life time (t1/2): 20 days (20°C)

Bioaccumulative potential: BCF: 100-3000

## Section 13. Disposal Considerations

**Disposal Method:** Dispose of this product only by using according to the label or at an approved landfill. Container Disposal: Triple rinse container and add rinsate to spray tank. Empty containers and product should not be burnt. Dispose of container in a suitable landfill or take to an Agrecovery collection site. Do not use container for any other purpose.

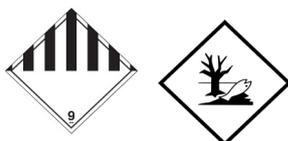


**Precautions:** Do not allow product to enter waterways.

**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. (Acetochlor)

### **Air Transport**

UN No: 3082  
Class-primary 9

Product Name: Acierto  
Date of SDS: 9 November 2023

SDS Issued by: Adama New Zealand Ltd  
Tel: 64 3 543 8275

www.adama.com

Packing Group III  
 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Acetochlor)

Marine Transport

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

**Special Provisions:**

If the product's individual container is below 5L/kg, 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:** HSR101427

**HSNO Classification:** Flammable liquid Category 4, Acute oral toxicity Category 4, Acute inhalation toxicity Category 4, Skin irritation Category 2, 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, Hazardous to terrestrial vertebrates

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handlers	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Spray Records	3 Litres or more within a 24-hour period
Fire Extinguishers	500L - 2 extinguishers (3.1D)
Signage Trigger Quantities	100L (9.1A)
Emergency Response Plan	100L (9.1A)
Secondary Containment	100L (9.1A)
HSNO Additional Controls (Restrictions of use)	
77A - Application method	This substance must be applied using ground-based methods only.  The substance must not be applied when wind speeds are less than 3 km/hr or more than 20 km/hr as measured at the application site.
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 agrichemicals

HPC Notice Part 4 Clause 50	The maximum application rate of Acierto is 2.8L/ha (corresponding to 2.52 kg acetochlor/ha), with maximum of one application per year.
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 application of environmentally hazardous substances
<b>ACVM Act and Regulations</b>	
Registered pursuant to the ACVM Act 1997, See <a href="http://www.foodsafety.govt.nz">www.foodsafety.govt.nz</a> for registration conditions	No. P8861
<b>For all further controls</b>	Refer to EPA website ( <a href="http://www.epa.govt.nz">www.epa.govt.nz</a> ) for controls document - HSR101427

## 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.
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 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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9 November 2023

Review Date: 9 November 2028

Product Name: Acierto  
Date of SDS: 9 November 2023

SDS Issued by: Adama New Zealand Ltd  
Tel: 64 3 543 8275

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