

SECTION 1: Identification

1.1. Product identifier

 Trade name : **Albaugh ZIPMAL 960 EC Herbicide**

1.2. Other means of identification

S-Metolachlor

1.3. Recommended use of the chemical and restrictions on use

1.3.1. Recommended use

Industrial/Professional use : For professional use only

Use of the substance/mixture : Agriculture Herbicide

1.3.2. Restrictions on use

No additional information available.

1.4. Details of the manufacturer/importer

 Albaugh Australia Pty Ltd
 Level 1, 530 Little Collins Street, MELBOURNE 3000, Australia
 Tel (03) 99097183
 ABN: 676 890 994

1.5. Emergency phone number

 Emergency number : 1800 862 115 (Australia)
 +61 2 9037 2994 Local (City): Sydney

SECTION 2: Hazards identification

2.1. Classification of the hazardous chemical

This material is hazardous according to Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture:

Acute toxicity (inhalation: dust/mist) Category 4

The following hazard classes fall outside the scope of the Workplace Health and Safety Regulations:

Hazardous to the aquatic environment (acute) – Category 1

Hazardous to the aquatic environment (chronic) – Category 1

2.2. Label elements, including precautionary statements

Hazard pictograms :


 Exclamation
Mark

Environment

Signal word : Warning

 Hazard statements : H332 Harmful if inhaled.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.

 Precautionary statements : P261 Avoid breathing dust, mist.
 P271 Use only outdoors or in a well-ventilated area.
 P273 Avoid release to the environment.
 P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P312 Call a POISON CENTRE or doctor if you feel unwell.
 P391 Collect spillage.
 P501 Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

SECTION 3: Composition and information on ingredients

Name	Ingredient identifier (CAS No.)	Content (w/v)
S-Metolachlor	87392-12-9	96%
Other components are not considered hazardous in this formulation and therefore are not required to be disclosed according to the WHS Regulations		

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SECTION 4: First aid measures

4.1. Description of necessary first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after ingestion	: Rinse mouth. DO NOT induce vomiting. Obtain emergency medical attention.
First-aid measures after inhalation	: Remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Call a POISON INFORMATION CENTER (Australia) on 13 11 26 or doctor/physician.
First-aid measures after eye contact	: Rinse cautiously with water immediately for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain emergency medical attention.
First-aid measures after skin contact	: Remove affected clothing immediately and wash all exposed skin area with plenty of mild soap and water.
First aid facilities	Eyewash, safety shower and normal washroom facilities.

4.2. Symptoms caused by exposure

Symptoms/injuries after ingestion	: May cause irritation, reddening and burning sensation to mouth and throat, abdominal cramps, anaemia, shortness of breath, dark urine, convulsions, jaundice, diarrhoea, weakness, nausea, sweating and dizziness.
Symptoms/injuries after inhalation	: Harmful if inhaled. May cause mild respiratory irritation.
Symptoms/injuries after eye contact	: May cause eye irritation
Symptoms/injuries after skin contact	: May cause allergic skin reaction. May cause mild skin irritation, skin rash and inflammation.

4.3. Medical attention and special treatment

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Suitable extinguishing equipment

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray..
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

This product is classified as a C2 combustible product. Product is not flammable but may burn in fire.

In the event of fire the following may be released: oxides of carbon and nitrogen, nitrogen, other nitrogen compounds, hydrogen cyanide, hydrogen chloride, other chlorine compounds and smoke.

5.3. Special protective equipment and precautions for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering drains or water bodies. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth. Do not allow run-off from fire fighting to enter drains or water courses.
Protection during firefighting	: In the event of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and protective suit. Do not enter fire area without proper protective equipment, including respiratory protection. Breathable air apparatus must be worn when fighting a fire in which this product is involved.
Hazchem code	•3Z (bulk only)

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with spilled product or contaminated surfaces. Wear appropriate personal protective equipment and clothing to prevent exposure. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation.

Protective equipment	: Do not attempt to take action without suitable protective equipment. See Section 8
Emergency procedures	: Ventilate area. Do not breathe mist/vapours/spray. Avoid contact with skin and eyes.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters. Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

Soak up spills with inert solids, such as clay, sand, soil, vermiculite or diatomaceous earth as soon as possible. Collect spillage in sealable open-top type containers for disposal. If large liquid spills occur, attempt to recover as much spilt material from sumps and bunded areas, as possible, before absorbing remaining material into vermiculite or other absorbent.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Do not breathe mist/spray. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes.

Wear personal protective equipment. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep only in the original container in a dry, cool, well ventilated place out of direct sunlight. Keep container tightly closed. Protect from frost. Do not store with seed, fertilisers or foodstuffs.
- Incompatibilities : Strong acids, bases, oxidising agents and combustible materials.
Protect from direct sunlight, heat, sparks, open flames and other sources of ignition.

SECTION 8: Exposure controls/personal protection

8.1. Exposure control measures

Exposure standards No value assigned for this specific material by Safe Work Australia.

8.2. Biological monitoring

No biological limit allocated for the product. No biological monitoring is required.

8.3. Control banding

Not available.

8.4. Engineering controls

Handle in well-ventilated areas, generally natural ventilation is adequate.

8.5. Individual protection measures

- Personal protective equipment : Avoid all unnecessary exposure. When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and goggles and appropriate respiratory protection. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. After each day's use, wash contaminated clothing and safety equipment.
- Eye and face protection : Chemical goggles or safety glasses. Eye protection devices should conform to relevant regulations. Consult AS/NZS 1336 and AS/NZS 1337 for further information.
- Skin protection : Wear protective gloves of impervious material. Occupational protective gloves should conform to relevant regulations. Consult AS/NZS 2161 and AS/NZS 4501 for further information.
- Respiratory protection : If ventilation is inadequate, suitable respiratory protection should be worn, consult AS/NZS 1715 and AS/NZS 1716 for further information.
- Thermal hazards : No further relevant information available.

SECTION 9: Physical and chemical properties

- Physical state : Liquid
- Colour : Brown to reddish-brown
- Odour : Mild characteristic odor.
- Odour threshold : No data available
- pH : 4.0 – 7.0
- Density : No data available
- Relative evaporation rate (butylacetate=1) : No data available
- Melting point : Not applicable
- Freezing point : No data available
- Boiling point : 323 °C
- Flash point : 116.2 °C
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Flammability : C2 combustible product
- Vapour pressure : No data available
- Relative vapour density at 20 °C : No data available
- Relative density : 1.11373
- Solubility : No data available
- Log Pow : No data available
- Viscosity, kinematic : No data available
- Viscosity, dynamic : 301.9 mPa·s (at 40°C)
- Explosive properties : Not explosive
- Oxidising properties : Not an oxidizer
- Explosive limits : No data available
- Particle characteristics : Not applicable
- Partition coefficient: n-octanol/water (log value) : No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

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10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases. Keep away from strong oxidising agents and combustible materials.

10.6. Hazardous decomposition products

Thermal decomposition may result in the release of toxic and/or irritating fumes. Hydrogen cyanide (hydrocyanic acid), Carbon monoxide, Nitrogen oxides (NOx).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

The information presented below is based on the toxicity data for the formulated product, S-Metolachlor 960g/L EC

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Acute toxicity	: Oral LD50 (rat): > 2000mg/kg (Plamur bio data) Dermal LD50 (rat): > 2000 mg/kg (Plamur bio data) Inhalation LC50 (rat -dust/mist): > 4.443 mg/l/4h (Plamur bio data)
	Considered to be harmful if inhaled. Not considered to be acutely toxic via oral or dermal route of exposure, according to available data.
Skin corrosion/irritation	: Not a skin irritant according to available data.
Serious eye damage/irritation	: Not an eye irritant according to available test data (OPPTS 870.2400).
Respiratory or skin sensitisation	: Not a skin sensitiser according to available test data (OECD 406 & OPPTS 870.2600). Not expected to be a respiratory sensitiser according to available information.
Germ cell mutagenicity	: Not suspected to cause genetic defects according to available data.
Carcinogenicity	: Not considered to be carcinogenic according to available data.
Reproductive toxicity	: Not considered to be toxic to reproduction according to available data.
Specific target organ toxicity (single exposure)	: Not expected to cause toxicity to a specific target organ through single exposure according to available information.
Specific target organ toxicity (repeated exposure)	: Not expected to cause toxicity to a specific target organ according to available information.
Aspiration hazard	: Not expected to be an aspiration hazard according to available information.

SECTION 12: Ecological information

12.1. Ecotoxicity

Very toxic to aquatic life with long lasting effects.

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LC50 Fish (96h)	15.35 mg/l (RRL)
EC50 Crustacea (48h)	23.62 mg/l (RRL)
ErC50 Algae (72h)	3.4 mg/l (RRL)

S-metolachlor

LC50 Fish (96h, rainbow trout)	1.23 mg/l (EPM)
EC50 Crustacea (48h)	11.24 mg/l (EPM)
ErC50 Algae (72h, Pseudokirchneriella subcapitata)	0.056 mg/l (EPM)

12.2. Persistence and degradability

Persistence and degradability : No additional information available.

12.3. Bioaccumulative potential

Bioaccumulative potential : No additional information available.

12.4. Mobility in soil

Mobility in soil : No additional information available.

12.5. Other adverse effects

Other information : No additional information available.

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SECTION 13: Disposal considerations

Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. Do not burn empty containers or product. Do not reuse container for any other purpose.

SECTION 14: Transport information

Road and rail transport	: Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to the provisions of the Australian Code for the Transport of Dangerous Goods by Road and Rail as per the Australian Special Provisions AU01.
Additional Information:	: Australian Special Provisions AU01: Environmentally Hazardous Substances meeting the description of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in; (a) packagings that do not incorporate a receptacle exceeding 500 Kg (L); or (b) IBCs.

Marine transport:	: Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; MARINE POLLUTANT
UN Number	: 3082
Proper Shipping Name or Technical Name:	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (CONTAINS S-METOLACHLOR)
Transport Hazard Class:	: 9
Packaging Group:	: III
Hazchem Code:	: •3Z
IMDG EMS Fire:	: F - A
IMDG EMS Spill:	: S - F
Environmental Hazards:	: Yes. Marine Pollutant,
Special Precautions for User:	: Not available.
Additional Information:	: The marine pollutant mark is not required when transported in sizes of ≤ 5 L or ≤ 5 kg.

Air transport:	: IATA provision SP A197: Environmentally Hazardous Substances meeting the description of UN 3077 or UN 3082 are not subject to this Code when transported air in packages that have inner packages (plastic bottles, glass bottles, plastic bags) of 5 L for UN3082 and 5 kg for UN3077 or less.
UN Number	: 3082
Proper Shipping Name or Technical Name:	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (CONTAINS S-METOLACHLOR)
Transport Hazard Class:	: 9
Packaging Group:	: III
Special Precautions for User:	: Not available.
Additional Information:	: IATA Special Provision A197: when transported in sizes of ≤ 5 L or ≤ 5 kg per packaging (inner or single) are not subject to the code.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations

APVMA Number	: 94198
Poison Schedule	: Schedule 5
AICIS	: Listing in the AICS is not required for products regulated by the APVMA.

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)
Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)
Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

SECTION 16: Any other relevant information

Date of issue	: 13/03/2025
Version	: 001
Reason(s) for issue	: First issue
Literature References	: See respective sections for information

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Abbreviations

: ADG Code - Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)
AICIS – Australian Industrial Chemicals Introduction Scheme (formerly NICNAS)
AIIC - Australian Inventory of Industrial Chemicals
APVMA – Agricultural Pesticides and Veterinary Medicines Australia
ATE - Acute Toxicity Estimate
BCF - Bioconcentration factor
BLV - Biological limit value
BOD - Biochemical oxygen demand (BOD)
CAS No. - Chemical Abstract Service number
COD - Chemical oxygen demand (COD)
EC50 - Median effective concentration
EPM - British Crop Protection Council Database, e-Pesticide Manual
GHS - Globally Harmonised System of Classification and Labelling of Chemicals (7th revised edition) 2017
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IMDG - International Maritime Dangerous Goods
LC50 - Median lethal concentration
LD50 - Median lethal dose
LOAEL - Lowest Observed Adverse Effect Level
NOAEC - No-Observed Adverse Effect Concentration
NOAEL - No-Observed Adverse Effect Level
NOEC - No-Observed Effect Concentration
N.O.S. - Not Otherwise Specified
Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (June 2023)
Plamur bio data - Palamur Biosciences Private Limited
RRL -Rotam Research Laboratory
STEL - Short term exposure limit means the average airborne concentration of a substance calculated over a 15 minute period. The STEL should not be exceeded at any time during a normal eight hour working day.
SUSMP - Standard for the Uniform Scheduling of Medicines & Poisons
SWA - Safe Work Australia, formerly ASCC and NOHSC
ThOD - Theoretical oxygen demand (ThOD)
TLM - Median Tolerance Limit
TGA – Therapeutic Goods Australia
TWA - Time-weighted average means the average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.
VOC - Volatile Organic Compounds
WHS – Workplace Health and Safety

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product