Section 1 - Identification of The Material and Supplier

Macspred Pty Ltd **Phone: (03) 5335 8522**
13 Kennedys Drive
Delacombe VIC 3356 AUSTRALIA

Trade Name:	**MACSPRED SULFOMAC 750 WG HERBICIDE**
APVMA Code:	63764
Chemical nature:	Active ingredient is a sulfonylurea derivative.
Product Use:	Agricultural herbicide for use as described on the product label.
Creation Date:	**July, 2013**
This version issued:	**February, 2023** and is valid for 5 years from this date.

Section 2 - Hazards Identification

Statement of Hazardous Nature
SUSMP Classification: S5
ADG Classification: None allocated. Not a Dangerous Good under the ADG Code.
UN Number: None allocated

GHS Signal word: NONE. Not hazardous.

RESPONSE

P337: If eye irritation persists: seek medical attention.
P353: Rinse skin or shower with water.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P332+P313: If skin irritation occurs: Get medical advice.
P337+P313: If eye irritation persists: Get medical advice.

STORAGE

P404: Store in a closed container.
P410+P403: Protect from sunlight. Store in a well-ventilated place.

DISPOSAL

P501: Dispose of contents and containers to landfill.

Emergency Overview

Physical Description & Colour: Off white dry flowable granulated solid.
Odour: No odour.
Major Health Hazards: Sulfometuron-methyl's acute oral toxicity is very low. The LD_{50} of Sulfometuron methyl in rats is greater than 5000 mg/kg. One study showed an LD_{50} greater than 17,000 mg/kg. The acute dermal toxicity of the compound is also low. The LD_{50} values for exposure through the skin ranges from over 2000 mg/kg in female rabbits to over 8000 mg/kg in male rabbits. No significant risk factors have been found for this product.

Section 3 - Composition/Information On Ingredients

Ingredients	CAS No	Conc,%	TWA (mg/m^3)	STEL (mg/m^3)
Sulfometuron methyl	74222-97-2	750g/kg	not set	not set
Other non hazardous ingredients	secret	to 100	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Section 4 - First Aid Measures

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Inhalation: First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Skin Contact: Gently brush away excess solids. Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.
Eye Contact: Quickly and gently brush particles from eyes. No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes. Take special care if exposed person is wearing contact lenses.
Ingestion: If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids. This product, if scattered, may form flammable or explosive dust clouds in air.
Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.
Extinguishing Media: Suitable extinguishing media are carbon dioxide, dry chemical, foam, water fog.
Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade. Do not scatter spilled material with high pressure water jets.
Flammability Class: Does not burn.

Section 6 - Accidental Release Measures

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that dusts are likely to build up in cleanup area, we recommend that you use a suitable Dust Mask.
Stop leak if safe to do so, and contain spill. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Consider vacuuming if appropriate. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this SDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Section 7 - Handling And Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.
Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Check packaging - there may be further storage instructions on the label.

Section 8 - Exposure Controls And Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

SWA Exposure Limits	**TWA (mg/m^3)**	**STEL (mg/m^3)**

Exposure limits have not been established by SWA for any of the significant ingredients in this product.

The ADI for Sulfometuron methyl is set at 0.02mg/kg/day. The corresponding NOEL is set at 2.5mg/kg/day. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, March 2017.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.
Ventilation: This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.
Eye Protection: Eye protection such as protective glasses or goggles is recommended when this product is being used.

Skin Protection: 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 skin contact is likely.
Protective Material Types: We suggest that protective clothing be made from the following: rubber, PVC.
Respirator: If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable Dust Mask.

Section 9 - Physical And Chemical Properties:

Physical Description & colour:	Off white dry flowable granulated solid.
Odour:	No odour.
Boiling Point:	Not available.
Flash point:	Does not burn.
Upper Flammability Limit:	Does not burn.
Lower Flammability Limit:	Does not burn.
Autoignition temperature:	Not applicable - does not burn.
Freezing/Melting Point:	Sulfometuron methyl melts 203-205°C
Volatiles:	No specific data. Expected to be low at 100°C.
Vapour Pressure:	7.3×10^{-11} mPa (technical material, at 25°C)
Vapour Density:	No data.
Specific Gravity:	1.48 approx. Bulk density 0.62-0.71.
Water Solubility:	244mg/L at 25°C
pH:	No data.
Volatility:	Negligible at normal ambient temperatures.
Odour Threshold:	No data.
Evaporation Rate:	No data.
Coeff Oil/water Distribution:	1.18 at pH 5; -0.51 at pH 7.0 (log P octanol/water)

Particle Characteristics:

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.
Conditions to Avoid: Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.
Incompatibilities: strong acids, strong bases, strong oxidising agents.
Fire Decomposition: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. Oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds. Most will have a foul odour. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.
Polymerisation: Polymerisation reactions are unlikely; they are not expected to occur.

Section 11 - Toxicological Information

Toxicity: **Acute toxicity:** Sulfometuron-methyl's acute oral toxicity is very low. The LD_{50} of Sulfometuron methyl in rats is greater than 5000 mg/kg. One study showed an LD_{50} greater than 17,000 mg/kg. The acute dermal toxicity of the compound is also low. The LD_{50} values for exposure through the skin ranges from over 2000 mg/kg in female rabbits to over 8000 mg/kg in male rabbits. The technical compound is not a skin irritant or a skin sensitizer. It has mild eye irritant properties in rabbits. The acute inhalation LC_{50} is above 5.3 mg/L in rats, indicating its slightly toxic nature by this route.
Chronic toxicity: Several toxic effects have been seen with chronic exposure to Sulfometuron-methyl in test animals. At doses of 25 mg/kg/day, dogs experienced reduced red-blood cell counts and increased liver weight. In this study, dogs were fed the compound in their food for a year. In two other studies conducted over 90 days, rats had increased white-blood cell counts (leukocytes) and anaemia only at the highest dose tested (375 mg/kg/day). In a 2-year feeding study, no effects were noted below 7.5 mg/kg/day in rats.
Reproductive effects: In a 90-day reproductive effects study in rats, no reproductive effects were observed at doses of 300 mg/kg/day. Another study in rats showed decreased fecundity and body weight at 300 mg/kg/day. Studies of rabbits showed no foetotoxic effects at 300 mg/kg/day, the highest dose tested. Reproductive effects due to Sulfometuron-methyl are not likely.
Teratogenic effects: No teratogenic effects were observed in studies of rats and rabbits at doses of 300 mg/kg/day. It is unlikely that Sulfometuron-methyl is teratogenic.
Mutagenic effects: The compound was not mutagenic in a variety of assays conducted on Salmonella cells and Chinese hamster ovary cells. It is unlikely that the compound poses a mutagenic risk.

Carcinogenic effects: No carcinogenic effects have been detected in either rats or mice exposed to Sulfometuron-methyl.
Organ toxicity: As was noted above, increased liver weight may result from chronic exposure. Damage to blood forming agents may also occur.
Fate in humans and animals: Sulfometuron-methyl is readily absorbed through the gastrointestinal tract and is rapidly broken down and removed from the organism. Half-lives of the compound in rats ranged from 28 to 40 hours, depending on the dose (16 mg/kg and 3000 mg/kg, respectively). The compound did not accumulate in rats.

Classification of Hazardous Ingredients

Ingredient	Health Hazard Statement Codes

No ingredient mentioned in the HCIS Database is present in this product at hazardous concentrations.

Potential Health Effects

Inhalation:
Short Term Exposure: Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.
Long Term Exposure: No data for health effects associated with long term inhalation.

Skin Contact:
Short Term Exposure: Available data indicates that this product is not harmful. It should present no hazards in normal use. However product may be mildly irritating, but is unlikely to cause anything more than mild discomfort which should disappear once contact ceases.
Long Term Exposure: No data for health effects associated with long term skin exposure.

Eye Contact:
Short Term Exposure: This product may be irritating to eyes, but is unlikely to cause anything more than mild transient discomfort.
Long Term Exposure: No data for health effects associated with long term eye exposure.

Ingestion:
Short Term Exposure: Significant oral exposure is considered to be unlikely. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.
Long Term Exposure: No data for health effects associated with long term ingestion.

Carcinogen Status:
SWA: No significant ingredient is classified as carcinogenic by SWA.
NTP: No significant ingredient is classified as carcinogenic by NTP.
IARC: No significant ingredient is classified as carcinogenic by IARC.

Section 12 - Ecological Information

Effects on birds: Sulfometuron-methyl is practically nontoxic to birds. The acute oral LD_{50} in mallards is greater than 5000 mg/kg. An 8-day dietary study with mallard ducks and bobwhite quail also showed an LC_{50} greater than 5000 ppm for both species.
Effects on aquatic organisms: The compound is slightly toxic to freshwater fish. Its LC_{50} in rainbow trout and in bluegill sunfish is greater than 12.5 mg/L. While the compound may not present a significant threat to adult aquatic organisms, the embryo hatch stage of fathead minnow may be at particular risk from the presence of the compound. Fish kills have been associated with Sulfometuron-methyl, but other causes have not been ruled out. Sulfometuron-methyl is practically nontoxic to the water flea, Daphnia magna. Its LC_{50} in the water flea is greater than 125 mg/L for the technical material and greater than 1000 mg/L for dispersible granules. No bioaccumulation has been detected.
Effects on other organisms: No data are currently available.
Environmental Fate:
Breakdown in soil and groundwater: Sulfometuron-methyl is of low to moderate persistence in the soil environment. It is broken down in soil by the action of microorganisms, by the chemical action of water (hydrolysis), and through the action of sunlight (photodegradation). Reported field half-lives of Sulfometuron-methyl range from 20 to 28 days. In several field dissipation studies, half of the initial applied amount of the compound remained for 1 to 3 weeks, depending on soil type, vegetation cover, and pH. Under anaerobic soil conditions, the compound persists slightly longer, though the half-life is still rather short (up to 8 weeks). Sulfometuron-methyl does not bind strongly to soil and is slightly soluble in water , but is rapidly degraded and does not appear to pose a threat to groundwater. Field study data indicated a majority of the parent compound stays within the top 3 inches of soil.

Breakdown in water: In well aerated acidic water, the compound is broken down quickly. Reported field half-lives for Sulfometuron-methyl in water vary from 1 to 3 days to 2 months or more. Photolysis is generally less important than hydrolysis in its breakdown. Under non-oxygenated (anaerobic) conditions in water sediments, the compound had a half-life of several months.

Breakdown in vegetation: Because Sulfometuron-methyl is toxic to a number of plants and is non-selective, the use of the compound on non-croplands, including rights of way and along ditch banks, may endanger both terrestrial and aquatic plant species.

Section 13 - Disposal Considerations

Disposal: Special help is available for the disposal of Agricultural Chemicals. The product label will give general advice regarding disposal of small quantities, and how to cleanse containers. However, for help with the collection of unwanted rural chemicals, contact ChemClear 1800 008 182 http://www.chemclear.com.au/ and for help with the disposal of empty drums, contact DrumMuster http://www.drummuster.com.au/ where you will find contact details for your area.

Section 14 - Transport Information

UN Number: This product is not classified as a Dangerous Good by ADG, IATA or IMDG/IMSBC criteria. No special transport conditions are necessary unless required by other regulations.

Section 15 - Regulatory Information

AIIC: All of the significant ingredients in this formulation are compliant with AICIS regulations.
The following ingredient: Sulfometuron methyl, is mentioned in the SUSMP.

Section 16 - Other Information

This SDS contains only safety-related information. For other data see product literature.

Acronyms:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)
AIIC	Australian Inventory of Industrial Chemicals
SWA	Safe Work Australia, formerly ASCC and NOHSC
CAS number	Chemical Abstracts Service Registry Number
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC	International Agency for Research on Cancer
NOS	Not otherwise specified
NTP	National Toxicology Program (USA)
SUSMP	Standard for the Uniform Scheduling of Medicines & Poisons
UN Number	United Nations Number

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD STATEMENT: INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS

OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document “Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice” (July 2020) and GHS Revision 7

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http://www.kilford.com.au/ Phone (02)8321 8866