

MATERIAL SAFETY DATA SHEET

CHEMFORCE METSULFURON 600 WG

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name Chemforce Metsulfuron 600 WG Herbicide
Product Code -
Other Names -
Product Use Chemforce Herbicide
Company Name Chemforce 2010 Pty Ltd.
Address 99 Garling Street
O'Connor, 6163, W.A.
Telephone Number 08 9337 4933
Emergency Telephone 08 9337 4933

2. HAZARDS IDENTIFICATION

NON HAZARDOUS SUBSTANCE. NON DANGEROUS GOODS.

Not classified as hazardous according to the criteria of ASCC.

Hazards -
Risk Phrases -
Safety Phrases S23 - Do not breathe vapour
S24/25 - Avoid contact with skin and eyes.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient (common name)	CAS Number	Proportion
Metsulfuron methyl	74223-64-6	60%
Other non hazardous ingredients	Proprietary	40%

4. FIRST AID MEASURES

Inhalation Move victim to fresh air. Unlikely to cause any discomfort or irritation. First aid is not generally required.
Ingestion If swallowed wash mouth with water and give some water to drink. Seek medical attention if symptoms develop.
Skin Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before re-use.
Eyes If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media For major fires call the Fire Brigade. Ensure that an escape path is available from any fire.
Use extinguishing media suited to the surrounding fire.

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Hazardous Combustion Products	Oxides of carbon, nitrogen and sulphur.
Firefighting Equipment	Recommended use of self contained breathing apparatus and full protective equipment.
Unusual Fire or Explosion Hazards	Not a fire or explosion hazard.
Hazchem Code	Not allocated.

6. ACCIDENTAL RELEASE MEASURES

Spills	<p>In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective clothing including eye/face protection.</p> <p>Recover the product by sweeping up or vacuuming without raising dust. Collect spilled material into labelled containers for recycling or salvage, and dispose of promptly.</p> <p>Launder protective clothing before storage or re-use</p>
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7. HANDLING AND STORAGE

Handling Storage	<p>Avoid generating dusts while handling the product and mixing.</p> <p>Store in the closed, original container in a dry, well ventilated area, as cool as possible. Do not store for prolonged periods in direct sunlight. Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.</p>
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Standards (ASCC)	No exposure standards set.
Engineering Controls	No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that dusts are minimised.
Respiratory Protection	If there is a significant chance that dusts are likely to build up in the area, a suitable dust mask should be used.
Eye Protection	Protective glasses or goggles and face shield.
Skin Protection	Impervious elbow-length gloves.
Hygienic Practices	Exercise good hygiene practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Off-white granulated solid.
Odour	Odourless.
Solubility in water	Wettable.
Boiling Point / Range	No information available.
Freezing / Melting point	No information available.
Vapour Pressure	No information available.
Vapour Density (Air = 1)	No information available.
Specific Gravity	No information available.
Flash Point	Does not flash.

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Flammable Limit – Lower No information available.
Flammable Limit – Upper No information available.
Ignition Temperature No information available.

10. STABILITY AND REACTIVITY

Chemical Stability Stable under normal storage conditions.
Incompatible Materials Strong oxidising agents.
Hazardous Decomposition Products Oxides of carbon, nitrogen and sulphur.
Hazardous Polymerization Conditions to Avoid Will not occur.
Heat, moisture and light.

11. TOXICOLOGICAL INFORMATION

Toxicity

Acute Toxicity: Metsulfuron methyl has very low toxicity in mammals. LD50 is > 5,000 mg/kg in rats. It has low dermal toxicity in tests with rabbits, with an LD50 > 2,000 mg/kg, and low inhalation toxicity in rats, with a median lethal concentration in air of greater than 5 mg/L air. Moderate but reversible eye irritation has been seen in rabbits, and mild skin irritation has been observed in guinea pigs. No skin sensitization has been observed in guinea pigs.

Chronic Toxicity: A 2-year feeding study in rats resulted in a NOEL of 25.0 mg/kg/day (or 500 ppm in feed), based on decreased body weights seen at 250 mg/kg/day (5,000 ppm) which was the highest dose tested. EPA has based its reference dose (0.25 mg/kg/day) on this study.

Reproductive Effects: Multigenerational studies in rats did not result in any reproductive effects at the highest doses tested of 250 mg/kg/day.

Teratogenic Effects: Metsulfuron-methyl did not cause developmental abnormalities to offspring of rats and rabbits fed 1000 mg/kg/day and 700 mg/kg/day respectively during gestation. These doses represent the highest dose tested for each experiment.

Mutagenic Effects: The weight of evidence presented by a battery of tests to measure mutagenicity and other adverse effects on DNA indicates that metsulfuron-methyl is neither mutagenic nor genotoxic.

Carcinogenic Effects: Negative for rats and mice in laboratory tests, but studies may not have been at maximum tolerated dose.

Organ Toxicity: Metsulfuron-methyl is a moderate eye irritant.

Fate in Humans and Other Animals: The chemical is broken down quickly and eliminated from the body. In tests with radio labeled metsulfuron-methyl in rats, the excretion half-lives ranged from 9 to 16 hours and 23 to 29 hours for rats administered low and high doses, respectively. It did not bio-accumulate in fish.

Routes of Exposure Inhalation, ingestion, eye and skin
Health effects from likely routes of exposure Inhalation: No health effects are expected.
Ingestion: May be mildly irritating to mucous membranes.

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	Eye:	May be irritating to eyes.
	Skin:	May be mildly irritating.
Effects of Overexposure		No information available.
Existing Conditions		No information available.
Aggravated by Exposure		
Carcinogenicity		No (ASCC, NTP, IARC)

12. ECOLOGICAL INFORMATION

Ecotoxicity and Mobility	<p>Breakdown of Chemical in Soil and Groundwater: The breakdown of metsulfuron-methyl in soils is largely dependant on soil temperature, moisture content, and pH. The chemical will degrade faster under acidic conditions, and in soils with higher moisture content and higher temperature. The chemical has a higher mobility potential in alkaline soils than in acidic soils, as it is more soluble under alkaline conditions. Metsulfuron-methyl is stable to photolysis, but will break down in ultraviolet light. Half-life estimates for metsulfuron-methyl in soil are wide ranging from 14 - 180 days, with an overall average of reported values of 30 days. Reported half-life values (in days) for soil include: clay - 178; sandy loam - 102; clay loam - 70, 14-28, 14-105; silty loam - 120-180.</p> <p>Breakdown of Chemical in Surface Water: The dissipation time for metsulfuron-methyl was investigated in a mixed wood/boreal forest lake. The DT50 or length of time required for half of the material to dissipate in water was >84 days when high concentrations of metsulfuron-methyl were applied, and 29.1 days at concentrations that might be expected if the chemical is applied for forestry uses. It is stable to hydrolysis at neutral and alkaline pHs, and has a half-life of 3 weeks at pH 5.0, 25°C and >30 days at 15°C.</p> <p>Breakdown of Chemical in Vegetation: Metsulfuron-methyl is rapidly taken up by plants at the roots and on foliage. The chemical is translocated throughout the plant, but is not persistent. It is broken down to non-herbicidal products in tolerant plants.</p>
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13. DISPOSAL CONSIDERATIONS

Disposal methods and containers	Instructions concerning the disposal of this product and its containers are given on the product label. Dispose according to applicable local and state government regulations.
Special precautions for landfill or incineration	Please consult your state Land Waste Management Authority for more information

14. TRANSPORT INFORMATION

Not classified as a dangerous good according to the Australian Code for the Transport of Dangerous goods by road or rail.

UN Number	Not applicable
Proper Shipping Name	Not applicable

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Dangerous Goods Class Not applicable
Hazchem Code Not applicable
Packing Group Not applicable
Special Precautions Not applicable

15. REGULATORY INFORMATION

Metsulfuron methyl is listed in the Australian Inventory of Chemical Substances (AICS).

SUSDP Classification: Not Scheduled

16. OTHER INFORMATION

Last Revision of MSDS Rev 1.0 (01/05/2012)
Prepared by **Chemforce 2010 Pty Ltd Technical Department**
Abbreviations Used IARC: International Agency for Research on Cancer
ASCC: Australian Safety and Compensation Council
NTP: National Toxicology Program (U.S.)
OSHA: Occupational Safety and Health Administration (U.S.)
STEL: Short term exposure limit
TWA: Time weighted average

Emergency Contacts

Chemforce 20120 Pty Ltd	08 9337 4933
Chemforce 2010 Pty Ltd – Emergency Number	08 9337 4933
Police and Fire Brigade	000
Poisons Information Centre	13 11 26

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Please read instructions / label before using product.