

# 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.

## MATERIAL SAFETY DATA SHEET

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

### 6. ACCIDENTAL RELEASE MEASURES

<b>Spills</b>	<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>
---------------	--

### 7. HANDLING AND STORAGE

<b>Handling Storage</b>	<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>
-------------------------	--

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

### 9. PHYSICAL AND CHEMICAL PROPERTIES

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

## MATERIAL SAFETY DATA SHEET

**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.

## MATERIAL SAFETY DATA SHEET

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

### 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity and Mobility</b>	<p><b>Breakdown of Chemical in Soil and Groundwater:</b> 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><b>Breakdown of Chemical in Surface Water:</b> 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 &gt;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 &gt;30 days at 15°C.</p> <p><b>Breakdown of Chemical in Vegetation:</b> 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>
---------------------------------	---

### 13. DISPOSAL CONSIDERATIONS

<b>Disposal methods and containers</b>	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.
<b>Special precautions for landfill or incineration</b>	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.

<b>UN Number</b>	Not applicable
<b>Proper Shipping Name</b>	Not applicable

## MATERIAL SAFETY DATA SHEET

**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

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

The information contained in this material safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. Chemforce 2010 Pty Ltd makes no representation of the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability for any loss or damage related to the supply or use of the information in this material safety data sheet. MSDS.COM.AU Pty Ltd is not in a position to warrant the accuracy of the data herein. The user is cautioned to make their own determinations as to the suitability of the information provided to the particular circumstances in which the product is used.

Please read instructions / label before using product.