

# MATERIAL SAFETY DATA SHEET

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Date of Issue: March 2013  
MSDS No. FMC/TERMCPA/1

## SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name: FMC Terbutryn MCPA Herbicide**

**Other Names:** Terbutryn plus MCPA, a Group C and I Herbicide.  
**Use:** A post emergence broadleaf agricultural herbicide.  
**Company:** FMC Crop Protection Pty Ltd.  
**Address:** 5 Palmer Place, Murarrie, Qld 4172  
**Telephone Number:** 07 3908 9222 **Fax Number:** 07 3908 9221  
**Emergency Telephone Number:** 1800 033 111 (All hours - Australia wide).

## SECTION 2 HAZARDS IDENTIFICATION

**Classified as Hazardous according to criteria of the Safe Work Australia.  
Not classified as a Dangerous Good according to the ADG Code.**

**Risk Phrases:** R22 Harmful if swallowed.  
R38 Irritating to the skin.  
R41 Risk of serious damage to the eyes.

**Safety Phrases:** S2 Keep out of reach of children.  
S13 Keep away from food, drink and animal feeding stuffs.  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

## SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

### Ingredients:

<b>CHEMICAL</b>	<b>CAS NUMBER</b>	<b>PROPORTION</b>
Terbutryn	886-50-0	275 g/L
MCPA present as the potassium salt	5221-16-9	160 g/L
Propylene glycol	57-55-6	0 - 10%
Other ingredients determined not to be hazardous		balance

## SECTION 4 FIRST AID MEASURES

**Ingestion:** If swallowed DO NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre. Phone Australia 13 11 26. Make every effort to prevent vomit from entering the lungs by careful placement of the patient.

**Skin:** Wash affected areas thoroughly with soap and water. Remove contaminated clothing and launder before re-use.

**Eye:** If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes.

**Inhalation:** Remove affected person to fresh air until recovered.

**Advice to Doctor:** Treat symptomatically.

**SECTION 5 FIRE FIGHTING MEASURES**

**Specific Hazard:** Not flammable.

**Extinguishing media:** Extinguish fire using carbon dioxide, foam or dry agent. If not available, use waterfog or fine water spray but ensure all runoff is contained. Contain all runoff.

**Hazards from combustion products:** There is no risk of an explosion from this product under normal circumstances if involved in a fire. Product is unlikely to decompose until heated to dryness. On further heating will emit toxic fumes. Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk to of exposure to vapour or smoke.

**Precautions for fire-fighters and special protective equipment:** Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe or contact smoke, gases or vapours generated.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Emergency procedures:** In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum wear cotton overalls buttoned to the neck and wrist and washable hat, elbow length PVC gloves and goggles. In the case of spillage, stop leak if safe to do so, and contain spill. Absorb spilled material with absorbent material such as sand, clay or proprietary absorbent (such as vermiculite). Collect spilled material and waste in sealable open-top type containers for disposal. On-site disposal of concentrate is not acceptable. Dispose of waste as indicated in section 13 or according to the Australian Standard 2507 - Storage and Handling of Pesticides. Keep out animals and unprotected persons.

**Environmental Precautions:** This product is a herbicide and spills can damage crops, pastures and desirable vegetation.

**SECTION 7 HANDLING AND STORAGE**

**Precautions for Safe Handling:** Keep out of reach of children. Harmful if swallowed. Attacks eyes. Will irritate the skin. Avoid contact with the skin. Repeated exposure may cause allergic disorders. When preparing the spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist, a washable hat, elbow-length PVC gloves and goggles. If product in eyes, wash out immediately with water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, goggles and contaminated clothing.

**Conditions for Safe Storage:** Store in the closed, original container, in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight. Keep container tightly sealed and do not store with seed, fertilizers or feed stuffs.

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

**National Exposure Standards:** Exposure guidelines have not been established for this product by Safe Work Australia, however the following ingredient has the following guideline.

Atmospheric Contaminant	Exposure Standard (TWA)	STEL (mg/m <sup>3</sup> )
Propylene glycol	474mg/m <sup>3</sup> (150 ppm)	-

TWA = Time-weight Average.

STEL = Short term Exposure Limit.

**Biological Limit Values:**

No biological limit allocated.

**Engineering controls:**

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

**Personal Protective equipment (PPE):**

**General:** When preparing the spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist, a washable hat, elbow-length PVC gloves and goggles. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, goggles and contaminated clothing.

**SECTION 8 | EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Respiratory Protection:** Generally not required. Use of a respirator may be required in certain circumstances. If an inhalation risk exists, wear a properly fitted half-face or full-face air-purifying respirator which is approved for pesticides (Australian Standards).

**Personal Hygiene:** Clean water should be available for washing in case of eye or skin contamination. Wash skin before eating, drinking or smoking. Shower at the end of the workday.

**SECTION 9 | PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:** Opaque yellow liquid.  
**Solubility in Water:** Suspends in water.  
**Specific Gravity:** Approximately 1.1.  
**Vapour Pressure:** No data available.  
**Volatile Component:** No data available.  
**Octanol/Water:** No data available.  
**pH:** 8 – 10.  
**Partition Coefficient:** No data available.  
**Flammability:** Non flammable, non combustible liquid  
**Formulation type:** Suspension Concentrate (SC).

**SECTION 10 | STABILITY AND REACTIVITY**

**Chemical Stability:** Product is considered stable in ambient conditions for a period of at least 2 years after manufacture.

**Conditions to avoid:** Do not store for prolonged periods in direct sunlight.

**Incompatible materials:** Strong acids, strong bases and strong oxidising agents. Reaction of the concentrate or spray mix with acids will precipitate solid MCPA and significantly deactivate the product and cause blockages in spray equipment.

**Hazardous decomposition products:** Product is unlikely to decompose until heated to dryness. On further heating will emit toxic fumes.

**Hazardous reactions:** No special considerations.

**SECTION 11 | TOXICOLOGICAL INFORMATION**

No specific data is available for this product as no toxicity tests have been conducted on this product. Information presented is our best judgement based on similar products and/or individual components. As with all products for which limited data is available, caution must be exercised through the use of protective equipment and handling procedures to minimise exposure.

**Potential Health Effects:****ACUTE EFFECTS**

**Ingestion:** Harmful if swallowed. May also cause irritation to the mouth, throat and stomach. Ingestion of the concentrate in relatively large amounts can cause liver, heart and kidney damage, unconsciousness and death.

**Skin:** Will irritate the skin. Prolonged contact may result in absorption of MCPA in harmful amounts.

**Eye:** The concentrate will cause severe irritation of the eyes unless washed off immediately.

**Inhalation:** The components of the product are of low volatility and no adverse effects are expected from handling the concentrate. However, care should be taken to avoid the inhalation of excessive amounts of spray mist during field spraying, respiratory irritation may occur.

**Chronic Effects:** Repeated exposure may cause allergic disorders. Liver and kidney damage has been noted in laboratory animal that have been fed excessive doses of MCPA.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Mutagenicity:** The weight of evidence indicates that terbutryn and/or MCPA does not present a mutagenic risk.

**Carcinogenicity:** The weight of the evidence indicates that terbutryn and/or MCPA is not carcinogenic.

**SECTION 12 ECOLOGICAL INFORMATION**

**Environmental Toxicology:** Terbutryn do not appear to pose any threat to birds. MCPA is moderately toxic to birds. Aquatic toxicity:

Test	Terbutryn	MCPA
LC <sub>50</sub> (96 hr) for rainbow trout	1.14 mg/L	232 mg/L
LC <sub>50</sub> (96 hr) for bluegill sunfish	4 mg/L	> 135 mg/L
EC <sub>50</sub> (48 hr) for daphnia magna	2.66 mg/L	> 190 mg/L

**Environmental Fate:** Average field half life of terbutryn is 14 – 50 days and for MCPA less than 7 days. Do not contaminate dams, waterways or sewers with this product.

**SECTION 13 DISPOSAL CONSIDERATIONS**

**Spills & Disposal:** If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®). Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities.

**Disposal of empty containers:** Triple or preferably pressure rinse containers before disposal. Add rinsings to tank mix. Do not dispose of undiluted chemicals on-site. If not recycling, break, crush, or puncture and deliver empty packaging for appropriate disposal 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.

DrumMUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMuster symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program.

**SECTION 14 TRANSPORT INFORMATION**

**Road & Rail Transport:** This product is exempt from classification as a Dangerous Good in packs less than 3,000 kg or litres under the Australian Code for the Transport of Dangerous Goods by Road and Rail. For bulk shipments this product is a class 9, UN 3082. (See special provision AU01). It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.

**Marine and Air Transport:** This product is classified as a Marine Pollutant according to International Maritime Dangerous Goods (IMDG) Code and the International Air transport Association (IATA). If transporting by sea or air the following Dangerous Goods Classification applies:-

UN 3082, Class 9 (Miscellaneous Dangerous Goods),  
Packing Group: III.

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Terbutryn).

Hazchem code: ●3Z.

Hazard Identification Number (HIN): 90.

**SECTION 15 REGULATORY INFORMATION**

Classified as a hazardous substance according to criteria of the Safe Work Australia. (Xn - harmful, Xi - irritant).

Under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP), this product is a schedule 5 poison.

This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 67819.

This product is not classified as a Dangerous Good according to the ADG Code for packs less than 3000 litres (SP AU01) (7<sup>th</sup> Ed).

**Requirements concerning special training:**

Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

**SECTION 16 OTHER INFORMATION**

Issue Date: 15 March 2013. Valid for 5 years. (First issue).

Key to abbreviations and acronyms used in this MSDS:

ADG Code: Australian Dangerous Goods Code (for the transport of Dangerous Goods by Road and Rail).

ASCC: Australian Safety & Compensation Council (formally known as the National Occupational Health & Safety Commission (NOHSC)).

Carcinogen: An agent which is responsible for the formation of a cancer.

Genotoxic: Capable of causing damage to genetic material, such as DNA.

Lacrimation: The production, secretion, and shedding of tears.

Lavage: A general term referring to cleaning or rinsing.

NOHSC: National Occupational Health and Safety Commission.

Pneumonitis: A general term that refers to inflammation of lung tissue.

PPE: Personal protective equipment.

Teratogen: An agent capable of causing abnormalities in a developing foetus.

TWA: The Time Weighted Average airborne concentration over an eight-hour working day, for a five day working week over an entire working life.

Safe Work Australia: Formally known as Australian Safety & Compensation Council (ASCC) which was formally known as the National Occupational Health & Safety Commission (NOHSC).

**References**

1. "Search Hazardous Substances". Safe Work Australia Council website. (2013).
2. "Approved Criteria for Classifying Hazardous Substances" 3rd Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.
3. Standard for the Uniform Scheduling of Medicines and Poisons

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

*End of MSDS*