



Ph: 03 9863 8081/ Fax: 03 9863 8083

Suite 822, St Kilda Road Tower,  
1 Queens Road, Melbourne, VIC 3004

email@sanonda.com  
www.sanonda.com

# SAFETY DATA SHEET

## SECTION 1: Identification of the substance/mixture and of the company/ undertaking

### 1.1. Product identifiers

Product name : Sanonda MCPA 500 Herbicide  
Active ingredient : MCPA  
Product code : 7100

### 1.2. Other means of identification

Chemical name (IUPAC): (4-chloro-2-methylphenoxy) acetic acid; 4-chloro-*o*-tolylxyacetic acid

### 1.3. Recommended use of the chemical and restrictions on use

Water soluble herbicide for non-selective control of many annual and perennial weeds.

### 1.4. Details of the supplier of the safety data sheet

Sanonda (Australia) Pty Ltd (ABN 23 059 813 973)

Address: Suite 822, St Kilda Road Towers, No. 1 Queens Road, Melbourne,  
Victoria 3004 Australia.

TEL: +61 3 9863 8081

FAX: +61 3 9863 8083

[email@sanonda.com](mailto:email@sanonda.com)

### 1.5. Emergency telephone number

Emergency number : +61 3 9863 8081

## SECTION 2: Hazards identification

### 2.1. GHS classification of the substance or mixture

Acute toxicity : Category 4  
Eye damage : Category 1  
Skin irritant : Category 2

### 2.2. Label elements

Signal word : Danger  
Hazard statements (CLP) : H302 Harmful if swallowed  
H318 Causes serious eye damage  
H315 Irritating to skin  
Precautionary statements : P102: Keep out of reach of children.



Ph: 03 9863 8081/ Fax: 03 9863 8083

Suite 822, St Kilda Road Tower,  
1 Queens Road, Melbourne, VIC 3004

email@sanonda.com  
www.sanonda.com

P202: Do not handle until all safety precautions have been read and understood.

P261: Avoid breathing fumes, mists, vapours or spray.

P264: Wash contacted areas thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301: If swallowed.

P302: If on skin.

P304: If inhaled.

P305: If in eyes.

P310: Immediately call a POISON CENTER or doctor/physician.

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P313: Get medical advice/attention.

P330: Rinse mouth.

P332: If skin irritation occurs.

P338: Remove contact lenses if present and easy to do. Continue rinsing.

P340: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P351: Rinse cautiously with water for several minutes.

P352: Wash with soap and water.

Hazard pictogram

: Health Hazard

Corrosion





Ph: 03 9863 8081/ Fax: 03 9863 8083

Suite 822, St Kilda Road Tower,  
1 Queens Road, Melbourne, VIC 3004

email@sanonda.com  
www.sanonda.com

### SECTION 3: Composition/information on ingredients

Identity of chemical ingredients	CAS	Concentration
MCPA present as the dimethylamine salt	2039-46-5	500g/L
Water	7732-18-5	30-50%
Non-hazardous surfactants	-	5-10%

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

In Case Of Emergency Dial 000 and/or Poisons Information Centre: Phone: +61 3 9863 8081 and speak to a Poisons Information Specialist with a copy of this SDS or chemical Label.

##### **If inhaled**

Move affected person to fresh air and keep at rest until recovered. If inhaled remove to fresh air and keep at rest. Obtain medical advice if at all worried. If not breathing give artificial respiration and get urgent medical attention.

##### **In case of skin contact**

Remove contaminated clothing and wash affected areas thoroughly with soap and water. Seek medical attention if symptoms persist.

##### **In case of eye contact**

If product gets in eyes, remove contact lenses if wearing and wash it out immediately with water for several minutes. Seek medical attention.

##### **If swallowed**

If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.

##### **Advice to Doctor**

Treat symptomatically. No specific antidote.

#### 4.2. Most important symptoms and effects, both acute and delayed

Some of the symptoms of MCPA poisoning includes Nausea, vomiting, abdominal pain, headache, weakness, unconsciousness, burning throat, reduced blood pressure, lethargy, agitation, coma, leukocytosis, pinpoint pupils, mild muscle breakdown, muscle spasms, protein in urine, rapid heart rate, twitching, seizures.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Call a physician or poison control center immediately.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

**Suitable extinguishing media**



Ph: 03 9863 8081/ Fax: 03 9863 8083

Suite 822, St Kilda Road Tower,  
1 Queens Road, Melbourne, VIC 3004

email@sanonda.com  
www.sanonda.com

Carbon dioxide, dry chemical powders, foam and water.

#### **Unsuitable extinguishing media**

No additional information available.

#### **5.2. Special hazards arising from the substance or mixture**

- Fire hazard : Hazardous decomposition products may be released during prolonged heating like toxic fumes of hydrogen chloride or phosgene if involved in fires or exposed to extreme heat.
- Explosive hazard : Product is not explosive.
- Reactivity : The product is stable at normal handling-and storage conditions.

#### **5.3. Advice for firefighters**

Fire fighters should wear Safe Work Australia approved self-contained breathing apparatus (AS/NZS 1715/1716) and full protective equipment.

Keep unnecessary people away.

If it can be done safely, remove intact containers from the fire. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of extinguishing agent and spillage safely later. Contamination of water bodies should be avoided.

### **SECTION 6: Accidental release measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

In case of spillage it is important to take all steps necessary to:

Instruct and ensure all bystanders to keep away from and upwind of spill/leak.

Avoid eye and skin contact;

Do not breathe dust;

Ensure adequate ventilation;

Avoid contamination of waterways.

Refer to Section 8 for Personal Protection Equipment (PPE).

#### **6.2. Environmental precautions**

Avoid contamination of waterways, drains and sewers.

#### **6.3. Methods and materials for containment and cleaning up**

Reposition any leaking containers so as to minimise leakage.

Dam and absorb spill with an absorbent material (eg sand or soil).

Shovel the absorbed spill and material into sealable open-top containers for disposal.

Dispose of at a landfill in accordance with local regulations. Refer Section 13.



Ph: 03 9863 8081/ Fax: 03 9863 8083

Suite 822, St Kilda Road Tower,  
1 Queens Road, Melbourne, VIC 3004

email@sanonda.com  
www.sanonda.com

Place damaged containers in recovery bins (if available) and if necessary return to Grow Choice.

Use vacuum equipment with high efficiency particulate air filters or sweep up without dust generation. Collect in a suitable, closed container to dispose and clean the spilled area with water.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Safe work practices are recommended.

Avoid contact with eyes and skin.

When opening the container and preparing spray wear appropriate PPE (refer Section 8).

Do not spray under high wind conditions.

#### Hygiene measures:

When using products, do not eat, drink or smoke.

Contaminated work clothing should not be allowed out of the workplace.

Wash hands thoroughly with soap and water after use and before eating, drinking, smoking/using tobacco, chewing gum, using the toilet or applying cosmetics.

After each day's use, wash gloves, face shield or goggles and contaminated clothing.

Avoid contact with eyes and skin.

### 7.2. Conditions for safe storage, including any incompatibilities

Keep out of reach of children, unauthorised persons and animals.

Store in tightly sealed original containers in a dry secure place away from fertilizers, feed and food.

Store out of direct sunlight and extreme temperature.

Always read the label and any attached leaflet before use.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No biological exposure limit allocated. No exposure standard has been established for this product.

Control process conditions to avoid contact. Use in a well-ventilated area only. Use local exhaust ventilation to keep exposure levels below the exposure limits above.

### 8.2. Appropriate engineering controls

When opening the container, preparing the spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length PVC chemical resistant and face shield or goggles.

### 8.3. Personal Protection Equipment



Ph: 03 9863 8081/ Fax: 03 9863 8083

Suite 822, St Kilda Road Tower,  
1 Queens Road, Melbourne, VIC 3004

email@sanonda.com  
www.sanonda.com

When using the prepared spray cotton overalls buttoned to the neck and wrist and a washable hat and optional once chemical is prepared for use, elbow length PVC chemical resistant and face shield or goggles if protected from spray drift/contamination.

**Face and Eye Protection:** Face shield or goggles.

**Clothing:** Cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat.

**Gloves:** Elbow-length chemical resistant PVC gloves.

**Respiratory:** If airborne concentrations are likely to exceed the exposure standards above or if exposed to dust, an AS/NZS 1715/1716 approved respirator should be worn.

Recommended to use Australian and New Zealand Standard PPE:

Overalls AS 3765, Clothing for protection against Hazardous chemicals

Gloves: AS/NZS 2161, Industrial safety gloves and mittens (not electrical and medical gloves)

Goggles and face shield As/NZS 1337, Eye protectors for industrial applications.

Footwear AS/NZS 2210, Occupational protective footwear

Respirators AS NZS 1715 Selection, Use and Maintenance of Respiratory Protective Devices

AS/NZS 1716, Respiratory Protective Devices

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

- |                                    |  |
|------------------------------------|--|
| a) Appearance                      | : Clear brown liquid.  |
| b) Odour                           | : Ammoniacal odour.  |
| c) pH                              | : Not available.   |
| d) Boiling point and boiling range | : Approximately 100°C at 100kPa.                                 |
| e) Flash point                     | : > 100°C  |
| f) Vapour pressure                 | : 2.37 kPa at 20°C (water vapour pressure).                      |
| g) Vapour density                  | : No data.   |
| h) Relative density                | : 1.12-1.14.   |
| i) Solubility (ies)                | : Completely soluble in water.                                   |
| j) Partition coefficient           | : $K_{ow}$ logP = 2.75 (pH 1), 0.59 (pH 5), -0.71 (pH 7) (25 °C) |
| n- octanol/water                   | (MCPA)   |
| k) Viscosity                       | : Not available.   |

### 9.2. Additional parameters



Ph: 03 9863 8081/ Fax: 03 9863 8083

Suite 822, St Kilda Road Tower,  
1 Queens Road, Melbourne, VIC 3004

email@sanonda.com  
www.sanonda.com

Persistent foam: 20mL maximum, after 1 min.

Solution stability: stable for 8 hours after dilution.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under normal conditions.

### 10.2. Chemical stability

Reaction of the concentrate or spray mix with acids will precipitate MCPA and largely de-activate the product. The addition of a strong alkali such as caustic soda will cause release of dimethylamine vapour, which is moderately toxic, LD50 (oral, rat) is 700 mg/kg and a TLV or 2 ppm (TWA) has been set.

### 10.3. Incompatible materials and possible hazardous reactions

Strong acids, strong bases and strong oxidizing agents. Reaction of the concentrate or spray mix with acids will precipitate MCPA and largely de-activate the product. The addition of a strong alkali such as caustic soda will cause release of dimethylamine vapour.

### 10.4. Conditions to avoid

Keep away from high temperature and oxidizing agents.

### 10.5. Hazardous decomposition products

Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Hydrogen chloride gas, other compounds of chlorine. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

## SECTION 11: Toxicological information

### 11.1. Information on routes of exposure and symptoms related to exposure

No harmful effects are expected if the precautions on the label and SDS are followed.

**Inhalation:** The concentrate is considered harmful by inhalation, a moderate hazard exists from inhalation of spray and care should be taken to avoid inhalation of spray mists.

**Ingestion:** The concentrate is harmful if swallowed. Ingestion of MCPA in relative large amounts can result in headache, nausea, lethargy, motor weakness and incoordination.

**Skin contact:** Prolonged contact of the concentrate with skin will result in absorption of some MCPA which can be harmful.

**Eye contact:** Prolonged contact with the concentrate may cause damage to the eye.

### 11.2. Immediate, delayed and chronic health effects from exposure

**Acute toxicity of MCPA:**



Ph: 03 9863 8081/ Fax: 03 9863 8083

Suite 822, St Kilda Road Tower,  
1 Queens Road, Melbourne, VIC 3004

email@sanonda.com  
www.sanonda.com

LD <sub>50</sub> oral rats	962–1470 mg/kg
LD <sub>50</sub> dermal rats	>4000 mg/kg
LC <sub>50</sub> inhalation rats	>6.36 mg/l
Eye irritation	Severe eye irritant
Skin irritation	Not irritating to skin

### Respiratory or skin sensitization

Not a skin sensitiser.

### Germ cell mutagenicity

MCPA was only weakly mutagenic to bone marrow and ovarian cells of hamsters and negative results were reported for all other mutagenic tests.

### Carcinogenicity

Did not cause cancer in long-term animal studies. There were no treatment related increases in tumors at dietary levels up to 20 ppm (rat, 1.25mg/kg) and 100 ppm (mice, 18mg/kg).

### Reproductive toxicity

A two-generation rat study at doses of up to 15 mg/kg affected reproductive function. Even smaller amounts of the compound were toxic to the fetuses. Dogs receiving relatively small amounts of MCPA (8 and 16 mg/kg) for 13 weeks had various adverse sperm and testes changes.

### Teratogenic Effects

Pregnant rats fed low to moderate doses of MCPA (20 to 125 mg/kg) on days 6 to 15 of gestation, had no birth defects in their offspring. However, when the ethyl ester form of MCPA was fed to pregnant rats at low to moderate levels (2 to 100 mg/kg) on days 8 to 15 of gestation, cleft palate, heart defect, and kidney anomalies were observed in the offspring. Mice fed 5 to 100 mg/kg of MCPA on days 6 to 15 showed significantly reduced fetal weight and delayed bone development at the highest dose.

The EPA, however, has stated that these studies are unacceptable under current guidelines and are requiring additional testing of the compound with regard to its potential to cause birth defects in two animal species. No conclusions can be drawn about human birth defect risk from the currently available information.

### 11.3. Exposure Levels/Chronic effects

Three ninety day studies of rats revealed chronic toxic effects at doses around 20 to 25 mg/kg/day. Growth retardation and increased kidney weight were the effects noted in all three studies. Another study of this type indicated that the lowest dose that caused chronic toxic effects in the rat was about 5 mg/kg/day. These levels are





Ph: 03 9863 8081/ Fax: 03 9863 8083

Suite 822, St Kilda Road Tower,  
1 Queens Road, Melbourne, VIC 3004

email@sanonda.com  
www.sanonda.com

substantially below the LD<sub>50</sub> values for the organism indicating that chronic toxicity can occur at low exposure levels.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Ecotoxicity

LC <sub>50</sub> fish	LC <sub>50</sub> (96 h, using MCPA salt solution) for rainbow trout 50–560, bluegill sunfish >150, carp 317, silverside 220 mg/l. (MCPA)
LC <sub>50</sub> daphnia	LC <sub>50</sub> (48 h) >190 mg/l. (MCPA)
EC <sub>50</sub> algae	EC <sub>50</sub> for <i>Selenastrum capricornutum</i> >392 mg/l. (MCPA)
Other Organisms	LD <sub>50</sub> (oral and contact) for bees >200 µg/bee. LD <sub>50</sub> (14 d) for <i>Eisenia foetida</i> 325 mg/kg dry soil. (MCPA)

### 12.2. Persistence and degradability

The organic content of soil determines in large part the persistence of MCPA. With less than 10% organic matter in soil, the compound is degraded in one day and, with greater than 10% levels in soil, it takes three to nine days to degrade. No MCPA was detected in forest soils at a depth of 3 to 15 cm 40 days after application. The half-life is five to six days in slightly acidic to slightly alkaline soils. MCPA leaches in most soils, but its mobility increases as organic matter decreases. The compound has been found in well water in Missouri and is of concern to the EPA as a potential groundwater contaminant.

In sterilized water, it takes about three weeks for half of the compound to degrade due to the action of sunlight. In rice paddy water however, MCPA is almost totally degraded by aquatic microorganisms in under two weeks.

MCPA is absorbed, translocated, and actively broken down by vegetation. Forest litter had 32 ppm 10 months after application. Levels in moss declined to 7% of the initial level within 40 days. The metabolite found in plants is 2-methyl-4-chlorophenol.

### 12.3. Bioaccumulative potential

A BCF of 1 was determined for trout at MCPA aqueous concns of 10-100 mg/l and using an exposure period of 10-28 day. In a model aquatic ecosystem study, BCFs of <1 were measured in fish and snails for the sodium salt of MCPA. These BCF values suggest the potential for bioconcentration in aquatic organisms is low. MCPA is absorbed through leaves or roots and is readily translocated in plants.

### 12.4. Mobility in soil



Ph: 03 9863 8081/ Fax: 03 9863 8083

Suite 822, St Kilda Road Tower,  
1 Queens Road, Melbourne, VIC 3004

email@sanonda.com  
www.sanonda.com

MCPA adsorption coefficients ( $K_d$ ) of 0.7 to 1.0 were measured in three soils (loamy sand and sandy loam types); based upon humus contents of 2.4-3.0%, the  $K_{oc}$  values of the three soils are approximately 60, 52 and 50, respectively. A similar  $K_d$  value of 0.4 was observed in a garden soil. Using soil thin-layer chromatography,  $R_f$  values of 0.6-1.0 were measured for Chillum silt loam (3.1% organic matter), Lakeland sand loam (0.9% organic matter) and Hagerstown silty clay loam (1.4% organic matter); these  $R_f$  values classify MCPA as mobile in soil. When MCPA was applied to a rice field, an observed 70% decrease in MCPA was attributed to losses through soil percolation. In a laboratory study of leaching columns with either turf grass soil or two subsoils, most of the applied MCPA (95.4-99.0%) eluted with the first 100-ml fraction of leaching water applied to the columns, indicating that MCPA did not bind to the soils. These  $K_{oc}$  values suggest that MCPA is expected to have high mobility in soil.

#### 12.5. Other adverse effects

No additional information.

### SECTION 13: Disposal considerations

#### 13.1. Safe handling and disposal methods

On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®).

#### 13.2. Disposal of any contaminated packaging

Do not use this container for any other purpose. Triple rinse containers, add rinsate to the spray tank, then offer the container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations.

#### 13.3. Environmental regulations

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. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, puncture or shred and bury containers in local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

### SECTION 14: Transport information



**SANONDA**  
(AUSTRALIA) PTY LTD

Ph: 03 9863 8081/ Fax: 03 9863 8083

Suite 822, St Kilda Road Tower,  
1 Queens Road, Melbourne, VIC 3004

email@sanonda.com  
www.sanonda.com

#### 14.1. UN number

UN-No. : 3082

#### 14.2. UN proper shipping name

Environmentally hazardous substance, liquid, N.O.S. (MCPA 500G/L)

#### 14.3. Transport hazard class(es)

Class (UN) : 9

Hazard labels (UN) : 9



#### 14.4. Packaging group

Packing group (UN) : III

#### 14.5. Environmental hazards

Dangerous for the environment:



IMDG Marine pollutant : Yes

Other information : No

#### 14.6. Special precautions for user

No information

#### 14.7. Hazchem Code

Not allocated.

### SECTION 15: REGULATORY INFORMATION

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP), this product is a schedule 6 poison. This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 63433. This product is classified as a Hazardous Substance under the criteria of Safe Work Australia. Xi: Irritant.

This product is not classified as a Dangerous Good according to the ADG Code (7 th Ed).

#### 15.2. Poisons Schedule number



Ph: 03 9863 8081/ Fax: 03 9863 8083

Suite 822, St Kilda Road Tower,  
1 Queens Road, Melbourne, VIC 3004

email@sanonda.com  
www.sanonda.com

This product is a Schedule 6 Poison and must be stored, transported and sold in accordance with the relevant Health Department regulations.

## SECTION 16. OTHER INFORMATION

### 16.1. Date of preparation or last revision of SDS

Revised 07/12/2016

**Revisions Highlighted:** The SDS was reviewed to include GHS requirements.

### 16.2. Contact Point

Sanonda (Australia) Pty Ltd

Suite 822, St Kilda Road Towers,

No.1 Queens Road, Melbourne, VIC 3004

Telephone: 03 9863 8081

Facsimile: 03 9863 8083

### 16.3. Key/legend to abbreviations and acronyms used in the SDS

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

IMDG Code: International Maritime Dangerous Goods

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

All due care and skill, so far as practicable, has been applied in the preparation and collation of the information in this SDS. Each user of the Product named in this SDS should read and consider the information contained in this SDS in the context of how the Product will be stored, handled, used or applied in the workplace. In all circumstances, it is the responsibility of the user of the Product to ensure that they have sought out the relevant safety data appropriate to their particular situation. Nothing contained in this SDS shall be construed as a representation or recommendation to the user about the suitability or otherwise of the Product named in this SDS for the user's particular situation. If the user requires any clarification or further information, the user should contact Sanonda (Australia) Pty Ltd.

**National Poisons Information Centre: Dial 13 11 26 (from anywhere in Australia)**

**Please read all labels carefully before using product.**