

MATERIAL SAFETY DATA SHEET



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SANONDA MCPA 500 HERBICIDE

1. IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

Product Name: Sanonda MCPA 500 Herbicide
Product Use: Water soluble herbicide for non-selective control of many annual and perennial weeds.
Supplier: Sanonda (Australia) Pty Ltd
ACN: 059 813 973
Address: Suite 822, St Kilda Rd Towers, No.1 Queens Rd, Melbourne VIC 3004
Telephone: 03 9863 8081
Facsimile: 03 9863 8083
Emergency phone number: 03 9863 8081

2. HAZARD IDENTIFICATION

Statement of Hazardous Nature

This product is classified as: Hazardous according to the criteria of ASCC Australia.
Not a Dangerous Good according to the Australian Dangerous Goods (ADG) Code.

Risk Phrase(s)

R22 Harmful if swallowed.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.

Safety Phrase(s)

S13 Keep away from food, drink and animal feeding stuffs.
S2 Keep out of reach of children.
S25 Avoid contact with eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37/39 Wear suitable gloves and eye/face protection.
S46 If swallowed, seek medical advice immediately and show this container or label.

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3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Entity	CAS No	Concentration (g/L)	TWA (mg/m³)	STEL (mg/m³)
MCPA	94-74-6	500	Not set	Not set
Dimethylamine	124-40-3	Secret	Not set	Not set
Water	7732-18-5	Balance	Not set	Not set

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. FIRST AID MEASURES

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (phone 13 11 26), and follow the advice given. Show this Material Safety Data Sheet to a doctor.

FIRST AID

Inhalation:

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

Skin Contact:

Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.

Eye Contact:

Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed, while holding the eyelid(s) open. Obtain medical advice immediately if irritation occurs. 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.

SYMPTOM

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

ADVICE TO DOCTOR

This product is not an inhibitor of cholinesterase. No specific antidote. Treat symptomatically.

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS

May emit toxic fumes of hydrogen chloride or phosgene if involved in fires or exposed to extreme heat.

EXTINGUISHING MEDIA

Not Combustible. Use extinguishing media suited to burning materials.

FIRE FIGHTING

If a significant quantity of this product is involved in a fire, call the fire brigade.

FIRE INCOMPATIBILITY:

None.

HAZCHEM:

Not allocated.

PERSONAL PROTECTIVE EQUIPMENT

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6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal

Contain spill and absorb with clay, sand, soil 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.

Clean-up Methods - Large Spillages

Place damaged containers in recovery bins (if available) and return to manufacturer. If large liquid spills occur, attempt to recover as much spilt material from sumps and banded areas before absorbing remaining material into vermiculite or other absorbent.

Personal Protection

For appropriate personal protective equipment (PPE), refer Section 8.

Environmental Precautions

Prevent from entering drains, waterways or sewers.

7. HANDLING AND STORAGE

HANDLING

Do NOT spray in high winds.

Do NOT contaminate dams, rivers or streams, or any other water bodies with pesticide or used containers.

STORAGE

This product is a S5 Poison. Store in the closed, original container in a dry, well ventilated area out of direct sunlight. Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.

OTHER INFORMATION

Always read the label and any attached leaflet before use. Do not use on or in situations where damage to susceptible crops or plants such as cotton, tobacco, tomatoes, flowers, vines, fruit trees or other susceptible crop plants may result from direct application or drift. Sprayed weeds may become more palatable to stock and a higher intake of some weeds may result in stock poisoning and death from causes such as nitrate poisoning. Care should be taken especially where capeweed, Paterson's curse and variegated thistles predominate in the pasture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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

Respiratory equipment:	AS/NZS 1715
Protective Gloves:	AS 2161
Industrial Clothing:	AS2919
Industrial Eye Protection:	AS1336 and AS/NZS 1337
Occupational Protective Footwear:	AS/NZS2210

Exposure Limits	TWA (mg/m³)	STEL (mg/m³)
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Exposure limits have not been established by ASCC for any of the significant ingredients in this product.

The ADI for MCPA is set at 0.01mg/kg/day. The corresponding NOEL is set at 1.1mg/kg/day. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, January 2001.

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Ventilation:

No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that dusts are minimised.

Eye Protection: Protective glasses or goggles must be worn when this product is being used. Failure to protect your eyes may lead to severe harm to them or to general health. Emergency eye wash facilities must also be available in an area close to where this product is being used.

Skin Protection:

Prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered. See below for suitable material types.

Protective Material Types:

We suggest that protective clothing be made from the following materials: rubber, PVC.

Respirator:

Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

Eyebaths or eyewash stations and safety deluge showers should be provided near to where this product is being used.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Description & colour:	Clear brown liquid.
Odour:	Ammoniacal odour.
Boiling Point:	Approximately 100°C at 100kPa.
Freezing/Melting Point:	Approximately 0°C.
Volatiles:	Water component.
Vapour Pressure:	2.37 kPa at 20°C (water vapour pressure).
Vapour Density:	No data.
Specific Gravity:	1.12-1.14
Water Solubility:	Completely soluble in water.
pH:	No data.
Volatility:	No data.
Odour Threshold:	No data.
Evaporation Rate:	No data.
Coeff Oil/water distribution:	No data
Autoignition temp:	Does not burn.

10. STABILITY AND REACTIVITY

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:

This product should be kept in a cool place, preferably below 30°C.

Incompatibilities:

Strong oxidising agents.

Fire Decomposition:

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.

Polymerisation:

This product is unlikely to undergo polymerisation processes.

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11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

MCPA acid is harmful via ingestion, with reported oral LD50 values for the technical product in rats ranging from 700 mg/kg to 1160 mg/kg and ranging in mice from 550 to 800 mg/kg. It is harmful via the dermal route as well, with reported dermal LD50 values ranging from greater than 1000 mg/kg in rats to greater than 4000 mg/kg in rabbits.

EFFECTS OF ACUTE EXPOSURE

Inhalation:

When applying the product as a spray avoid breathing in spray mists. May cause irritation to mucous membranes and respiratory tract.

Ingestion:

The concentrate is of low toxicity if swallowed. Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury. Possible symptoms of exposure include: nausea, vomiting and gastrointestinal discomfort and diarrhoea. Ingestion of a large quantity of the undiluted product may result in hypotension and pulmonary oedema.

Skin:

The concentrated product may cause slight irritation on contact. Prolonged contact is likely to result in irritation.

Skin Irritation:

Slight irritant.

Eye:

The concentrate may cause irritation of the eyes. Prolonged contact with the concentrate may cause damage to the eye.

Eye Irritation:

Slight irritant.

EFFECT OF LONG TERM EXPOSURE

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 substantially below the LD₅₀ values for the organism indicating that chronic toxicity can occur at low exposure levels.

Reproductive Effects

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.

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Mutagenic Effects

MCPA was only weakly mutagenic to bone marrow and ovarian cells of hamsters and negative results were reported for all other mutagenic tests. While another test has been requested by the EPA (a gene mutation study) it appears that the compound poses little mutagenic risk to humans.

Carcinogenic Effects

All of the available cancer evidence on MCPA indicates that the compound does not cause cancer.

Organ Toxicity

Farm worker exposure has resulted in reversible anemia, muscular weakness, stomach problems, and slight liver damage.

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA

Effects on birds:

MCPA is moderately toxic to wildfowl; the LD50 of MCPA in bobwhite quail is 377 mg/kg.

Effects on aquatic organisms:

MCPA is only slightly toxic to freshwater fish, with reported LC50 values ranging from 117 to 232 mg/L in rainbow trout. MCPA is practically nontoxic to freshwater invertebrates, and estuarine and marine organisms.

Effects on other organisms:

It is nontoxic to bees, with a reported oral LD50 of 104µg/bee.

ENVIRONMENTAL FATE

Breakdown in soil

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.

Breakdown in Water

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.

Breakdown in vegetation

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.

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13. DISPOSAL CONSIDERATIONS

Disposal:

Instructions concerning the disposal of this product and its containers are given on the product label.

These should be carefully followed. 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.

14. TRANSPORT INFORMATION

ADG Code

This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.

Hazchem Code Not allocated.

U.N. Number 3082

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. (MCPA 500G/L)

IMO Class 9

Packing Group III

15. REGULATORY INFORMATION

Poisons Schedule: S5

Packaging & Labelling: CAUTION
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR
USING

AICS (Australia): All of the components in this product are listed on the Australian Inventory of Chemical Substances.

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16. OTHER INFORMATION

This MSDS 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 MSDS. Each user of the Product named in this MSDS should read and consider the information contained in this MSDS 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 MSDS shall be construed as a representation or recommendation to the user about the suitability or otherwise of the Product named in this MSDS for the user's particular situation. If the user requires any clarification or further information, the user should contact Sanonda (Australia) Pty Ltd.

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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

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

Please read all labels and booklets carefully before using product.