



Material Safety Data Sheet

SECTION 1: IDENTIFICATION OF THE CHEMICAL PRODUCT

Product Name: GATEWAY 750 SELECTIVE HERBICIDE

Product Type: Group I Herbicide/ Phenoxy's derivative, present as the dimethylamine salt.

Product Use: For the control of broadleaf weeds in cereals, linseed, pastures, rice, sugar cane and turf as specified in the Directions for Use table.

SECTION 2: HAZARD IDENTIFICATION

Statement of Hazardous Nature

This product is classified as: Xn, Harmful. Xi, Irritating. Hazardous according to the criteria of SWA.

Not a Dangerous Good according to the Australian Dangerous Goods (ADG) Code.

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

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

SUSDP Classification: S6. **ADG Classification:** None allocated. Not a Dangerous Good under the ADG code.

UN Number: None allocated

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS	Proportion
MCPA (as present as the Dimethylamine salt)	94-74-6	750g/L
Other non-hazardous ingredients	-	to 100%

SECTION 4: FIRST AID MEASURES

Inhalation: Remove affected person to fresh air until recovered. If symptoms develop or persist, seek medical advice.

Product Name: GATEWAY 750 SELECTIVE HERBICIDE

Issued: October 2011; **Revision** October 2016

Poisons Information Centre: 13 1126 from anywhere in Australia

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

Eye Contact: If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice immediately.

Ingestion - swallowing: Rinse mouth and then drink plenty of water. Do not give anything by mouth to a semi-conscious or unconscious person. If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26 (Aust). Make every effort to prevent vomit from entering the lungs by careful placement of the patient.

Advice to Doctor: Treatment is symptomatic.

SECTION 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. Breathable air apparatus should be worn when fighting a fire in which this product is involved. Considered low risk due to water content, however upon evaporation of water the product is combustible.

Extinguishing Media: If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material.

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective clothing including eye/face protection. All skin areas should be covered. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. It should be fitted with a type G cartridge, suitable for agricultural chemicals.

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this MSDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or reuse. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

SECTION 7: HANDLING AND STORAGE

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed.

The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging there may be further storage instructions on the label.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure limits have not been established by ASCC for these ingredients ie. No TWA or STEL limits set. No biological limits applicable.

Ensure adequate ventilation and reduced dust in a shaded dry storage.

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, Sept 2010.

Personal Protective Equipment:

Australian Standards 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**

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Ventilation: This product should only be used where there is ventilation that is adequate to keep exposure below the TWA levels. If necessary, use a fan.

Eye Protection: Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended 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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical Description & colour: Clear red-brown liquid.

Odour: Ammonia like odour.

Freezing/ Melting Point: No specific data. Liquid at normal temperatures.

Volatiles: No data.

Vapour Pressure: Negligible.

Vapour Density: No data.

Specific Gravity: 1.181

Water Solubility: Soluble in water.

pH: No data.

Volatility: No data.

Autoignition temp: Not flammable.

Product Name: GATEWAY 750 SELECTIVE HERBICIDE

Issued: October 2011; **Revision** October 2016

Poisons Information Centre: 13 1126 from anywhere in Australia

Page: 3 of 6

SECTION 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.

Incompatibilities: Reaction of the concentrate or spray mix with acids will precipitate solid MCPA and largely de-activate the product and cause blockages in spray equipment.

The addition of a strong alkali such as caustic soda will cause release of dimethylamine vapour. Dimethylamine is moderately toxic, LD50 (oral, rat) is 700 mg/kg and a TLV of 10 ppm (TWA) has been set.

Fire Decomposition: This product is likely to decompose only after heating to dryness, followed by further strong heating. 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 will not undergo hazardous polymerisation reactions.

SECTION 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.

Chronic toxicity: Dietary levels of approximately 50 mg/kg/day and 125 mg/kg/day over 7 months caused reduced feeding rates and retarded growth rates in rats. White blood cell counts and ratios were not affected, but some reductions in red blood cell counts and haemoglobin did appear to be associated with exposure to MCPA at oral dose levels of approximately 20mg/kg/day. In the same study, oral doses of approximately 5 mg/kg/day caused increased relative kidney weights, and oral doses of approximately 20 mg/kg/day caused increased relative liver weights.

Another study in rats showed no effects on kidney or liver weights over an unspecified period at oral doses of 60 mg/kg/day, but oral doses of 150 mg/kg/day did cause reversible increases in these weights over a course of 3 months. Very high dermal doses of 500 mg/kg/day caused reduced body weight, and even higher dermal doses of 1000 and 2000 mg/kg/day resulted in increased mortality and observable changes in liver, kidney, spleen, and thymus tissue.

Reproductive effects: A two generation rat study at doses of up to 15 mg/kg/day affected reproductive function. It is unlikely that humans will experience these effects under normal exposure conditions.

Teratogenic effects: Offspring of 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. Teratogenic effects in humans are unlikely at expected exposure levels.

Mutagenic effects: MCPA is reportedly weakly mutagenic to bone marrow and ovarian cells of hamsters, but negative results were reported for other mutagenic tests. It appears that the compound poses little or no mutagenic risk.

Carcinogenic effects: All of the available evidence on MCPA indicates that the compound does not cause cancer. Forestry and agricultural workers occupationally exposed to MCPA in Sweden did not show increased cancer incidence.

Organ toxicity: Target organs identified in animal studies include the liver, kidneys, spleen, and thymus. Farm worker exposure has resulted in reversible anaemia, muscular weakness, digestive problems, and slight liver damage.

Fate in humans and animals: MCPA is rapidly absorbed and eliminated from mammalian systems. Rats eliminated nearly all of a single oral dose within 24 hours, mostly through urine with little or no metabolism. Humans excreted about half of a 5 mg dose in the urine within a few

days. No residues were found after day 5. There is no data to hand indicating any particular target organs.

SECTION 12: ECOLOGICAL INFORMATION

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 and groundwater: MCPA and its formulations are rapidly degraded by soil microorganisms and it has low persistence, with a reported field half-life of 14 days to 1 month, depending on soil moisture and soil organic matter. MCPA and its formulations show little affinity for soil.

Breakdown in water: It is relatively stable to light breakdown, but can be rapidly broken down by microorganisms. In rice paddy water, MCPA is almost totally degraded by aquatic microorganisms in under 2 weeks.

Breakdown in vegetation: MCPA is readily absorbed and translocated in most plants. It is actively broken down in plants, the major metabolite being 2methyl4chlorophenol.

SECTION 13: DISPOSAL CONSIDERATIONS

Instructions for the disposal of this product and its containers are listed on the product label.

For collection of unwanted rural chemicals, contact ChemClear @1800 008 182 www.chemclear.com.au and for help with the disposal of empty drums, contact DrumMuster® www.drummuster.com.au for local and State contacts.

SECTION 14: TRANSPORT INFORMATION

UN Number: None allocated

Proper Shipping Name: None allocated

SUSDP Classification: S6.

ADG Class: None allocated. Not a dangerous good.

Hazchem Code: None allocated

Packing Group: None allocated

SECTION 15: REGULATORY INFORMATION

SUSDP: S6.

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

APVMA Registration Number: 66544

SECTION 16: OTHER INFORMATION

Product Name: GATEWAY 750 SELECTIVE HERBICIDE

Issued: October 2011; **Revision** October 2016

Poisons Information Centre: 13 1126 from anywhere in Australia

This MSDS contains only safety-related information sourced from the public domain and analytical results on this product:

Acronyms:

ADG Code Australian Code for the Transport of Dangerous Goods by Road and Rail, 7th Edition

AICS Australian Inventory of Chemical Substances

CAS number Chemical Abstracts Service Registry Number

Hazchem Number Emergency action code of numbers and letters that provide information firefighters

IARC International Agency for Research on Cancer

ASCC Office of the Australian Safety and Compensation Council

NTP National Toxicology Program (USA)

R-Phrase Risk Phrase

SUSDP Standard for the Uniform Scheduling of Drugs & Poisons

UN Number United Nations Number

Police and Fire Brigade: Dial 000 **Poisons Information Centre (13 1126)**

Emergency contact: 04 0214 9346 (24 hours)

Information contained in this Material Safety Data Sheet is provided in good faith and is believed to be correct at the date hereof. However, it is expected that individuals receiving the information will exercise independent judgement in determining its appropriateness for a particular purpose. Hextar Pty Ltd makes no representation whatsoever as to the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability whatsoever, whether with respect to negligence or otherwise, and no responsibility as permitted by law for any loss or damage arising from or connection with the supply or use of the information in this Material Safety Data Sheet.