

MATERIAL SAFETY DATA SHEET

CONQUEST AMINE 625 SELECTIVE HERBICIDE

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Date of issue: 25th January 2011

Section 1 – IDENTIFICATION

Product Name: Conquest Amine 625 Selective Herbicide
Shipping Name: Conquest Amine 625 Selective Herbicide, Liquid, Toxic
UN Number: None allocated
ADG Classification: None allocated. Not a Dangerous Good
Active Ingredient: 2,4 D Acid present as dimethylamine salt
Product Type: Soluble Liquid
Uses: Herbicide for the control of broadleaf weeds in fallow before direct drilling or sowing of cereal crops and pastures; and in cereal crops, pastures, sugarcane, peanuts and non-agricultural areas as 'Direction for Use Table'.

Section 2 – HAZARDS IDENTIFICATION

NOHSC Classification: Classified as hazardous
Hazchem Category: Harmful
Risk Phrases: R20 – harmful by inhalation
R21 – harmful in contact
R22 – harmful if swallowed
Poison Schedule: S5
Safety Phrase: S13 Keep Away from Food, Drink and Animal Feed Stuff
S2 Keep out of Reach of Children

Section 3 – COMPOSITION

Chemical Entity	CAS No.	Proportion
2,4 D acid (Present as the dimethylamine salt)	94-75-7	625 g/L
Others	Proprietary	to 100%

Section 4 – PHYSICAL AND CHEMICAL PROPERTIES

Physical Description & colour: Clear red brown liquid.
Odour: Ammoniacal odour
Boiling Point: >100°C at 100kPa
Freezing/Melting Point: <0°C
Volatile Components: 30% (water)
Vapour Pressure: 16 mmHg (for water), 2,4-D Amines are non-volatile
Specific Gravity: 1.255 at 20°C
Flash Point: N/A
Water Solubility: Soluble in water
Autoignition temp: No data
Flammability: Non combustible material

Section 5 – FIRST AID MEASURES

General Instruction: Consult 'The Poisons Information Centre' (Australia Phone: 13 11 26) or a Doctor in every case of suspected chemical poisoning.

Inhalation: Move person to fresh air, if effects occur call a Doctor. If person is not breathing call 000 for an ambulance., then give artificial respiration, preferably by mouth to mouth.

Skin Contact: Take off contaminated clothing. Wash skin thoroughly with soap and water. Seek medical advice if irritation or an allergic reaction occurs.

Eye Contact: Quickly and gently blot or brush product away. Flush the contaminated eye(s) with lukewarm, gently flowing water until the product is removed or until irritation has ceased, while holding the eyelid(s) open. Remove contact lenses. Obtain medical advice if irritation becomes painful or lasts more than a few minutes.

Ingestion: If swallowed, call the Poisons Information Centre or a Doctor. Do not induce vomiting unless told to do so by the Poisons Information Centre or a Doctor. Make every effort to prevent vomit from entering the lungs by careful placement of the patient. Do not give any thing by mouth to a semi-conscious or unconscious person.

Section 6 – FIRE FIGHTING MEASURE

Flammability Class: Non-Flammable

Polymerisation: Not known to occur

Hazardous Combustion Product: During a fire, smoke may contain the original material in addition to combustion products of varying composition that may be toxic and/ or irritating. May emit toxic fumes of hydrogen chloride or phosgene. Take appropriate protective measures.

Special Fire Fighting Procedures: Evacuate personnel to a safe area. If the product is on fire wear positive-pressure self-contained breathing apparatus and full protective clothing.

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

Upper Flammability Limit: No data.

Lower Flammability Limit: No data.

Auto ignition temperature: No data.

Section 7 – ACCIDENTAL RELEASE MEASURES

General Instructions: **Wear appropriate protective equipment. Clear area of all unprotected personnel. Prevent entry of chemical or used/damaged containers into sewers, drains, streams or waterways. If necessary, inform the police and the relevant State Authority.**

Small Spill: For clean up of a spill from a single shipping pack soak up with sand or other non-combustible absorbent material and place into containers for disposal. If applicable, wash the area with detergent and water.

Large Spill: In the event of a major spill, prevent spillage from entering drains or water courses. Wear protective clothing as overalls, goggles and gloves. 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. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Section 8 – HANDLING AND STORAGE

Handling: After work, remove protective clothing, and wash hands before eating, smoking, drinking or using the toilet. Clean up spilled material immediately, and wash clothes, equipment and work area after use. Avoid breathing spray mist or vapours. Avoid splashes of material to the eye and skin.

Storage: Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight. Do not store with food, feedstuff, fertilisers and seeds.

Other Information: Do not spray in high winds. Do not contaminate dams, rivers or streams, or any other water bodies with pesticide or used containers. Equipment that has been used for this chemical should not be used for the application of other materials to sensitive plants, unless it has been well washed out with hot soapy water or 1% solution of ammonia, followed by several clear water rinses. 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.

Section 9 – EXPOSURE CONTROL AND PERSONAL PROTECTION

General Instructions: 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: Exposure limits have not been established by NOHSC for any of the significant ingredients in this product. However an exposure standard has been set for 2,4-D Acid (solid) at 10mg/m³. **Ventilation:** Use only with adequate ventilation. Provide general and/ or local exhaust ventilation to control airborne levels below the exposure guidelines. Make sure that the work environment remains clean and that vapours and mists are minimised.

Eye Protection: Eye protection such as protective glasses or goggles are required when this product is being used.

Skin Protection: Use protective clothing. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse.

Respirator: Atmospheric levels should be maintained below the exposure guidelines. Refer to the Australian Standards approved air-purifying or positive pressure supplied air respirators whenever respiratory protection is required.

Section 10 – STABILITY AND REACTIVITY

Chemical Reactivity: This product is stable under normal storage condition and unlikely to react or decompose under normal storage conditions.

Conditions to Avoid: Reaction of the concentrate or spray mix with acids will precipitate solid 2,4-D acid and largely deactivate the product and cause blockage in spray equipment. The addition of strong alkali such as caustic soda will cause release of dimethyl amine vapour, which is moderately toxic, LD50 (oral, rat) is 700 mg/kg and a TLV of 10 ppm (TWA) has been set.

Incompatibilities: Strong acids, strong bases, strong oxidising agents.

Polymerisation: This product is unlikely to undergo hazardous polymerisation processes.

Section 11 – TOXICOLOGICAL INFORMATION

General Information: No harmful effects are expected if the precautions on the label and MSDS are followed.

Inhalation: The components of the product are of low volatility and no adverse effects are expected from handling concentrate. The concentrate is considered harmful by inhalation by Worksafe Australia. 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 2,4-D in relatively large amounts can result in headache, nausea, lethargy, motor weakness and incoordination.

Skin: Prolonged contact with the concentrate may cause irritation. Prolonged contact of the concentrate with skin will result in absorption of some 2,4-D which can be harmful.

Eye: The concentrate may cause irritation to the eyes unless washed off immediately. Prolonged contact with the concentrate may cause damage to the eye.

Chronic Effects: Chronic over exposure: Repeated absorption of relatively large amounts of 2,4-D presents a risk to the liver and kidneys.

Acute Toxicity:

Oral:
LD50 (rat) 699 mg/kg for 2,4-D Acid
LD50 (rat) 700 g/kg for dimethylamine.

Dermal:
LD50 (rat) >2000 mg/kg for 2,4-D Acid

Inhalation:
LC50 (rat) (4 hr) >1.79 mg/L for 2,4-D Acid.

Other Information: In trials using 2,4-D as a drug, studies on volunteers have shown that doses of between 5 and 36 mg/kg body weight do not cause any acute toxic effects. Formulated 2,4-D products can be absorbed by ingestion, inhalation (spray mist) and through the skin. Studies of users (sprayers) have shown that absorption through the skin is the most common route. When used with good agricultural spraying practice and good personal hygiene, absorption of 2,4-D is very low. 2,4-D does not accumulate in the body; a single dose of 2,4-D is rapidly excreted (in a few days), mainly in the urine. The Australian Acceptable Daily Intake (ADI) for 2,4-D for a human is mg./kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept of Health and Ageing, 'ADI List', TGA, August 2003).

Section 12 – POTENTIAL HEALTH EFFECTS

Inhalation: **Short term exposure:** Significant inhalation exposure is considered to be unlikely if used in proper manner as suggested in the label. However, available data indicates that this product is harmful.
Long Term exposure: Prolong inhalation may have health effects.

Skin Contact: **Short term exposure:** Available data indicates that this product is not harmful. It should present no hazards in normal use if used in proper manner as suggested in the label.
Long Term exposure: The product may be irritating on prolonged exposure., but is unlikely to cause anything more than mild discomfort which should disappear once contact ceases.

Eye Contact: **Short term exposure:** Exposure via eyes is considered to be unlikely. This product is believed to be mildly irritating, to eyes, but is unlikely to cause anything more than mild transient discomfort.
Long Term exposure: The concentrate can be harmful to the eyes on long term exposure.

Ingestion: **Short term exposure:** Significant oral exposure is considered to be unlikely. Available data shows that this product is harmful, but symptoms are not available. This product is unlikely to cause any irritation problems in the short or long term.
Long Term exposure: No data for health effects associated with long term ingestion.

Carcinogen Status: NOHSC: No significant ingredient is classified as carcinogenic by NOHSC.

NTP: No significant ingredient is classified as carcinogenic by NTP.

IARC: No significant ingredient is classified as carcinogenic by IARC.

Section 13 – ECOLOGICAL INFORMATION

Effects on birds:	Do not appear to pose any threat to birds.
Effects on aquatic organisms:	Do not appear to pose any threat to fish or aquatic organisms other than in very high concentration. LC50 (96 hours) for rainbow trout is >100 mg/L. LC50 (48 hours) for daphnia is 184 mg/L for 2,4-D acid DMA salt.
Effects on other organisms:	The compound is not toxic to bees.

Section 14 – REGULATORY INFORMATION

APVMA Approval:	Conquest Amine 625 Selective Herbicide is a registered herbicide under the Agricultural and Veterinary Chemicals Code Act 1994. APVMA Approval Number: 55702.
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Section 15 – DISPOSAL CONSIDERATION

Disposal (Product):	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 authority who hold periodic collections of unwanted chemicals (ChemCollect).
Disposal (Containers):	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. If the label on container carries the drumMuster symbol, triple rinse the container, ring your local council, and offer the container for collection in the programme. Returnable Containers: Empty contents fully into application equipment. Place cap, close all valves and return to the point of supply for refill or storage. If on-site container disposal is necessary, triple rinse empty container with water, add rinsate to the spray tank. Puncture top, sides and bottom, crush and bury in an approved landfill or bury with at least 500 mm of soil cover away from pasture and crop areas, water supplies and houses.

Section 16 – TRANSPORT INFORMATION

UN Number:	Non Allocated
Shipping Name:	Non Allocated
ADG Code:	Non Allocated
Hazchem Code:	Non Allocated
Packing Group:	Non Allocated
Storage and Transport:	Considered non-dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.
General Information:	It is good practice to separate this product from food, food related materials, animal feedstuffs, seed or fertilisers during transport.

Section 17 – OTHER INFORMATION

General Information:	This MSDS contains only safety-related information. For other data see product literature.	
Acronyms:	ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail
	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 to emergency services especially firefighters
	IARC	International Agency for Research on Cancer
	NOHSC	National Occupational Health and Safety Commission
	NTP	National Toxicology Program (USA)
	R-Phrase	Risk Phrase
	SUSDP	Standard for the Uniform Scheduling of Drugs & Poisons
Comments:	<p>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 MUST REVIEW THIS MSDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE. IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.</p>	

Please read all labels carefully before using product. This MSDS is prepared in accord with the NOHSC document "National Code of Practice for the Preparation of Material Safety Data Sheets" 2nd Edition NOHSC:2011(2003)