

SAFETY DATA SHEET

According to HSNO Hazardous Substances (Safety Data Sheets) Notice 2017

Section 1. Identification of the material and the supplier

Product: **DY Quat 200**
 Product Use: Herbicide
 Restriction of Use: Refer to Section 15

New Zealand Supplier: **Agrisource 2000 Ltd**
 Address: 45 Kitchener Road
 Pukekohe, Auckland

Telephone: +64 9 237 0422
Emergency No: 0800 764 766 (National Poison Centre)

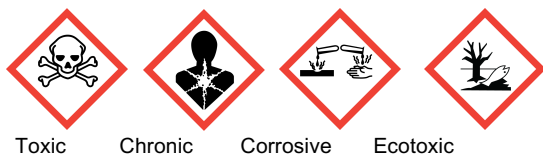
Date of SDS Preparation: 13 November 2023 v2

Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval No: HSR000446

Pictograms



Signal Word: **DANGER**

GHS Classification and Category	Hazard Code	Hazard Statement
Acute inhalation toxicity Cat. 3	H331	Toxic if inhaled.
Acute oral toxicity Cat. 4	H302	Harmful if swallowed.
Skin irritation Cat. 2	H315	Causes skin irritation.
Specific target organ toxicity – repeated exposure Cat. 1	H372	Causes damage to organs through prolonged or repeated exposure.
Corrosive to metals Cat. 1	H290	May be corrosive to metals.
Hazardous to the aquatic environment acute/chronic Cat. 1	H400/410	Very toxic to aquatic life with long lasting effects.
Hazardous to terrestrial vertebrates	H433	Hazardous to terrestrial vertebrates

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.
P234	Keep only in original container.
P260	Do not breathe fume, vapours and spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P311	Call a POISON CENTER or doctor/physician.
P314	Get medical advice/attention if you feel unwell.
P330	Rinse mouth.
P362 + P364	Take off contaminated clothing and wash before re-use.
P390	Absorb spillage to prevent material damage.
P391	Collect spillage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.

Storage Code	Storage Statement
P405	Store locked up.
P406	Store in corrosive resistant/... container with a resistant inner liner.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Wt	CAS NUMBER.
Diquat as the dibromide salt	20%	85-00-7
Other ingredients	Balance	-

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.
If on Skin	Take off contaminated clothing and wash before re-use. Wash skin with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention.
If Swallowed	Wash out mouth thoroughly with water. Do NOT induce vomiting. Never give anything to the mouth of an unconscious person. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Seek medical attention if needed.
If Inhaled	Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Apply artificial respiration if not breathing. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms: Toxic if inhaled.
Harmful if swallowed.
Causes skin irritation.
Causes damage to organs through prolonged or repeated exposure.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable
Hazards from combustion products	This product may form flammable and explosive hydrogen gas when in contact with Aluminium.
Suitable Extinguishing media	Foam. Carbon dioxide. Dry powder.
Precautions for firefighters and special protective clothing	Wear full protective clothing and self-contained breathing apparatus. Do not breathe smoke or gases.
HAZCHEM CODE	2X

Section 6. Accidental Release Measures

Avoid contact with skin and eyes. Do not inhale spray. Wear long sleeved shirt, long pants, waterproof gloves and safety goggles or face shield. Do not eat, drink or smoke when using. Wash hands and face before meals and after work.

Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways.

In the case of spillage, contain and absorb spilled material with absorbent material such as sand clay or cat litter. Keep out animals and unprotected persons. Vacuum, shovel or pump waste into an approved drum. To decontaminate spill area, tools and equipment, wash with a suitable solution (i.e. organic solvent, detergent, bleach or caustic) and add the solution to the drums of wastes already collected. Label for contents. Dispose of drummed wastes, including decontamination solution, in accordance with the requirements of Local Authorities detailed in Section 13.

Section 7. Handling and Storage

Precautions for Handling:

- Read carefully and follow all instructions.
- Keep only in original container.
- Do not breathe fume, vapours and spray.
- When mixing or applying, avoid contact with skin and eyes.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep out of reach of children.
- Store locked up.
- Store in corrosive resistant container with a resistant inner liner.
- This product reacts with Aluminium to produce flammable hydrogen gas.
- Do not mix or store in containers or systems made of Aluminium or having Aluminium fittings.
- Store in original container tightly closed and in a locked, dry, cool, well ventilated area, away from feed, seeds and foodstuffs.
- Keep away from sparks and flames.
- Packaging Materials: HDPE Plastic

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³

No ingredients have exposure limits

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices APRIL 2022 13TH EDITION.

Engineering Controls

Ensure ventilation is adequate. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits.

Personal Protection Equipment

Eyes	Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Hands	Wear suitable protective gloves against chemicals. Nitrile rubber min. 0.5mm thick and 300mm long gloves are the ones proven to be the most suitable according to tests on pesticide products. Wash the gloves thoroughly after each use, especially the insides. Replace gloves if damaged and before exceeding the breakthrough time.
Skin	Avoid contact with skin. If there is a significant potential for contact, wear suitable coveralls.
Respiratory	A NIOSH-certified combination air-purifying respirator with an N, P or R 95 or HE class filter and an organic vapour cartridge may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a pressure demand atmosphere-supplying respirator if there is any potential for uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate protection.
General	After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash contaminated clothing and safety equipment.

Section 9.**Physical and Chemical Properties**

Appearance	Liquid
Colour	Reddish brown
Odour	Slight odour
Odour Threshold	Not available
pH @23°C	Not available
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Not available
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Density	Not available

Solubility	Not available
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Octanol/Water Particle Coefficient	Not available

Section 10. Stability and Reactivity

Stability of Substance	Stable when stored in original container under normal conditions of storage and use.
Possibility of hazardous reactions	Relatively stable in neutral, weakly acidic and weakly alkaline media.
Conditions to Avoid	Concentrate should not be stored in aluminium containers. Spray solutions should not be mixed, stored or applied in containers other than plastic, plastic-lined steel, stainless steel or fiberglass.
Incompatible Materials	Strong alkalis and anionic wetting agents (e.g., alkyl and alkylaryl sulfonates). Corrosive to aluminium.
Hazardous Decomposition Products	Can decompose at high temperatures forming toxic gases. Flammable hydrogen gas may be formed on contact with aluminium.

Section 11. Toxicological Information

Acute Effects:

Swallowed	Harmful if swallowed.
Dermal	Not applicable.
Inhalation	Toxic if inhaled.
Eye	Not applicable.
Skin	Causes skin irritation.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable. In rabbit studies a small percentage of foetuses had minor defects at 3 and 10 mg ion/kg/d (active).
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Causes damage to organs through prolonged or repeated exposure.

Section 12. Ecotoxicological Information

Very toxic to aquatic life with long lasting effects. Hazardous to terrestrial vertebrates

Product:	
Persistence and degradability	Rapidly degraded by soil micro-organisms, DT50 of unadsorbed diquat <1 w; strong binding in soil increases persistence. Strongly bound and inactivated by soil and aquatic sediments and does not leach into groundwater; Kd >10 000.
Bioaccumulation	In rats, following oral administration of diquat dibromide, the dose is completely eliminated in the urine and faeces within 4 days. Metabolic breakdown of diquat dibromide does not occur in plants. On plant surfaces, photochemical degradation occurs
Mobility in Soil	No data available
Other adverse effects	No data available

Individual component information:

Acute Toxicity (active)

EC50 algae, (96h):	21 µg /l
LD50 birds, Mallard duck:	155 mg/kg
LD50 honey bees oral, Apis mellifera (120h):	22 µg a.s./bee
LD50 earthworm, (14D):	243 mg/kg

Chronic Toxicity

NOEC fish, Oncorhynchus mykiss (96h):	39 mg/l
NOEC aquatic invertebrates, Daphnia magna (48h):	2.2 mg/l

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method:

Triple rinse container and add rinsate to spray tank. Dispose of cleaned container at your local AGRECOVERY container collection site. Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.



Precautions or methods to avoid: Avoid release to the environment.

Section 14 Transport Information

This product is classified as a Dangerous Good for transport in NZ; NZS 5433:2020



Road, Rail, Sea and Air Transport

UN No	1760
Class - Primary	8
Subclass	-
Packing Group	III
Proper Shipping Name	CORROSIVE LIQUID N.O.S. (DIQUAT 20%)
Marine Pollutant	Yes
Special Provisions	If the product's individual container is below 1L/kg, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

Section 15. Regulatory Information

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval Code: HSR000446

HSW (HS) Regulations 2017	Trigger Quantity
Signage Trigger Quantities (Schedule 3)	100L (aquatic Acute/Chronic Cat. 1)
Emergency Response Plan (Schedule 5)	100L (aquatic Acute/Chronic Cat. 1)
Secondary Containment (Schedule 5)	100L (aquatic Acute/Chronic Cat. 1)
Tracking (Schedule 26)	Not required
Certified Handlers	Not required
Location Certificate	Not required
HSNO Additional Controls (Restrictions of use)	
	None known.
Hazardous Property Controls Notice 2017	
HPC Notice Part 4 Clause 47	Equipment for class 9 substances must be appropriate
HPC Notice Part 4 Clause 48	Records of application of class 9 pesticides and plant growth regulators
HPC Notice Part 2	Certain substances restricted to workplaces only.
HPC Notice Part 3	Hazardous substances in a place other than a workplace.
HPC Notice Part 4 Subpart A	Site and storage controls for class 9 substances
HPC Notice Part 4 Subpart C	Qualifications required for application of class 9 pesticide.
ACVM Act and Regulations	
See www.foodsafety.govt.nz for registration Conditions	P008929

Glossary

Cat	Category
EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices April 2022 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact the Agrisource 2000 Ltd, if further information is required.

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