

## 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: 02 July 2021

### Section 2. Hazards Identification

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

**EPA Approval No: HSR000446**

#### Pictograms



Toxic      Chronic      Corrosive      Ecotoxic

Signal Word: **DANGER**

GHS Classification and Category	HSNO Classification	Hazard Code	Hazard Statement
Acute inhalation toxicity Cat. 3	6.1C(inh)	H331	Toxic if inhaled.
Acute oral toxicity Cat. 4	6.1D (oral)	H302	Harmful if swallowed.
Skin irritation Cat. 2	6.3A	H315	Causes skin irritation.
Specific target organ toxicity – repeated exposure Cat. 1	6.9A	H372	Causes damage to organs through prolonged or repeated exposure.
Corrosive to metals Cat. 1	8.1A	H290	May be corrosive to metals.
Hazardous to the aquatic environment acute Cat. 1	9.1A	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment chronic Cat. 1	9.1A	H410	Very toxic to aquatic life with long lasting effects.
Hazardous to terrestrial vertebrates	9.3C	H433	Hazardous to terrestrial vertebrates

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
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
P310	Immediately call a POISON CENTER or doctor/physician.
P330	Rinse mouth.
P362	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.

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

Product Name: **DY Quat 200**  
Date of SDS: 02 July 2021

SDS Prepared by: Technical Compliance Consultants (NZ) Ltd  
Tel: 64 9 475 5240 www.techcomp.co.nz

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**

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

**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 label before use.
- 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

## Section 8 Exposure Controls / Personal Protection

### WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>

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 NOV 2019 11<sup>TH</sup> 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



<b>Eyes</b>	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.
<b>Hands</b>	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.
<b>Skin</b>	Avoid contact with skin. If there is a significant potential for contact, wear suitable coveralls.
<b>Respiratory</b>	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.
<b>General</b>	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

<b>Appearance</b>	Liquid
<b>Colour</b>	Reddish brown

Product Name: **DY Quat 200**  
Date of SDS: 02 July 2021

SDS Prepared by: Technical Compliance Consultants (NZ) Ltd  
Tel: 64 9 475 5240 www.techcomp.co.nz

<b>Odour</b>	Slight odour
<b>Odour Threshold</b>	Not available
<b>pH @23°C</b>	5.0 – 7.0
<b>Boiling Point</b>	Not available
<b>Melting Point</b>	Not available
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	Not available
<b>Flammability</b>	Not available
<b>Upper and Lower Explosive Limits</b>	Not available
<b>Vapour Pressure</b>	Not available
<b>Vapour Density</b>	Not available
<b>Density</b>	1.17g/ml
<b>Solubility</b>	Not available
<b>Partition Coefficient:</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Kinematic Viscosity</b>	Not available
<b>Octanol/Water Particle Coefficient</b>	Not available

### Section 10. Stability and Reactivity

<b>Stability of Substance</b>	Stable when stored in original container under normal conditions of storage and use.
<b>Possibility of hazardous reactions</b>	Relatively stable in neutral, weakly acidic and weakly alkaline media.
<b>Conditions to Avoid</b>	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 fibreglass.
<b>Incompatible Materials</b>	Strong alkalis and anionic wetting agents (e.g., alkyl and alkylaryl sulfonates). Corrosive to aluminium.
<b>Hazardous Decomposition Products</b>	Can decompose at high temperatures forming toxic gases. Flammable hydrogen gas may be formed on contact with aluminium.

### Section 11 Toxicological Information

#### Acute Effects:

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

#### Chronic Effects:

<b>Carcinogenicity</b>	Not applicable.
<b>Reproductive Toxicity</b>	Not applicable. In rabbit studies a small percentage of foetuses had minor defects at 3 and 10 mg ion/kg/d (active).
<b>Germ Cell Mutagenicity</b>	Not applicable.
<b>Aspiration</b>	Not applicable.
<b>STOT/SE</b>	Not applicable.

## Section 12. Ecotoxicological Information

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

<b>Product:</b>	
<b>Persistence and degradability</b>	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.
<b>Bioaccumulation</b>	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
<b>Mobility in Soil</b>	No data available
<b>Other adverse effects</b>	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 5433:2012**



### Road, Rail, Sea and Air Transport

<b>UN No</b>	1760
<b>Class - Primary</b>	8
<b>Subclass</b>	-
<b>Packing Group</b>	III
<b>Proper Shipping Name</b>	<b>CORROSIVE LIQUID N.O.S. (DIQUAT 20%)</b>
<b>Marine Pollutant</b>	Yes
<b>Special Provisions</b>	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

<b>HSW (HS) Regulations 2017</b>	<b>Trigger Quantity</b>
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	1000L (Acute inhalation toxicity Cat. 3)
<b>HSNO Additional Controls (Restrictions of use)</b>	
	None known.
<b>Hazardous Property Controls Notice 2017</b>	
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.
<b>ACVM Act and Regulations</b>	
See <a href="http://www.foodsafety.govt.nz">www.foodsafety.govt.nz</a> for registration Conditions	<b>P008929</b>

## Section 16 Other Information

### Glossary

Cat	Category
EC <sub>50</sub>	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC <sub>50</sub>	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD <sub>50</sub>	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.

Product Name: **DY Quat 200**  
Date of SDS: 02 July 2021

SDS Prepared by: Technical Compliance Consultants (NZ) Ltd  
Tel: 64 9 475 5240 [www.techcomp.co.nz](http://www.techcomp.co.nz)

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 Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

The information herein is given in good faith, but no warranty, express or implied is made.

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

Issue Date: 02 July 2021 Review Date: 02 July 2026