

SAFETY DATA SHEET

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

Section 1. Identification of the material and the supplier

Product: **Diquat 200SL**
 Product Use: Herbicide
 Restriction of Use: Refer to Section 15

New Zealand Supplier: **Adria Crop Protection Solutions**
 Address: 407 State Highway 16
 Kumeu 0841,
 Auckland

Telephone: +64 9 412 9817
 Fax: +64 9 412 9807
 Website: www.adria.nz

Emergency No: 0800 734 607 (24hr)
0800 764 766 (National Poison Centre)

Date of SDS Preparation: 29 October 2018

Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

EPA Approval No: HSR000446

Pictograms



Toxic Irritant Chronic Corrosive Ecotoxic

Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1C (inh)	H331	Toxic if inhaled.	Acute Tox. 3
6.1D (oral)	H302	Harmful if swallowed.	Acute Tox. 4
6.3A	H315	Causes skin irritation.	Skin Irrit. 2
6.9A	H372	Causes damage to organs through prolonged or repeated exposure	STOT RE 1
8.1A	H290	May be corrosive to metals.	Met. Corr. 1
9.1A	H410	Very toxic to aquatic life with long lasting effects.	Aquatic Chronic 1
9.3C	H433	Harmful 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 fumes, vapours or 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.
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	Refer to Section 13.

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Content (%w/v)	CAS NUMBER.
Diquat	17	85-00-7
Other ingredients determined not to be hazardous	To bal	

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	IF IN EYES: Rinse cautiously with water for several minutes. Seek medical advice if needed.
If on Skin	Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Seek medical attention if ill effect or irritation or rash develops.
If Swallowed	If swallowed do NOT induce vomiting. For advice, contact the National Poisons Centre on 0800 POISON (0800 764766) or a doctor immediately.
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. Call a POISON CENTRE or a doctor immediately.

Most important symptoms and effects, both acute and delayed

Product Name: Diquat 200SL
Date of SDS: 29 October 2018

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

Symptoms:

Ingestion: Harmful if swallowed.

Inhalation: Fatal if inhaled.

Skin: Causes skin irritation.

Eye: Not applicable.

Chronic: Causes damage to organs through single or repeated or prolonged exposure.

Poisoning symptoms: Inflammation of the mouth, throat and oesophagus. Gastrointestinal discomfort, diarrhea.

Notes for medical personnel Administer either activated charcoal (100 g for adults or 2 g/kg body weight in children) or Fuller's Earth (15% solution; 1 litre for adults or 15mL/kg body weight in children).

NOTE: the use of gastric lavage without administration of an adsorbent has not shown any clinical benefit.

Eye contact: Severe damage may be caused by apparently trivial contact and healing may be delayed. Medical supervision should continue until complete healing has occurred.

Section 5. Fire Fighting Measures

Hazard Type	This product is non-flammable.
Hazards from combustion products	Hazardous decomposition products. Combustion products are toxic and or irritant.
Suitable Extinguishing media	Dry chemical extinguisher, foam, carbon dioxide or waterspray (do not use direct jet of water).
Recommended protective clothing & Precautions for firefighters	Wear SCBA and chemical-protective clothing.
HAZCHEM CODE	2X

Section 6. Accidental Release Measures

Personal precautions:

Use protective clothing as per Section 8. Avoid contact with skin, eyes and clothing. Remove contaminated clothes and shoes immediately.

Environmental precautions:

Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Notify authorities if product enters sewers or public waters.

Spill and Disposal procedures:

Absorb spills with inert material and place in waste containers. Wash area with water and absorb with further inert material.

Disposal of the absorbed material will depend upon the extent of the spill. Contaminated material must be disposed of in accordance with all local authority requirements. It is suggested:

- For quantities up to 50 litres of product bury in a secure approved landfill site.
- For quantities greater than 50 litres seek advice from the manufacturer before attempting disposal. Contain in a secure location until disposal method is established.

Section 7. Handling and Storage

Precautions for Handling:

- Keep out of reach of children.
- Read label before use.
- Keep only in original container.

- Do not breathe fumes, vapours or spray.
- 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:

- Keep away from children.
- Store locked up.
- Store in corrosive resistant container with a resistant inner liner.
- Store in original container only.
- Keep away from heat and protect from sunlight.
- Protect against freezing.
- Store away from incompatible materials listed in Section 10.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
Diquat dibromide [85-00-7]	-	0.5	-	-

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 2017 9TH EDITION.

Engineering Controls / Industrial Hygiene

Ensure adequate ventilation.

Personal Protection Equipment



Eyes	Safety goggles with side-shields.
Hands	Suitable chemical resistant safety gloves (e.g. nitrile rubber (.4mm)).
Skin	Body protection (chemical protection suit, boots) must be chosen depending on activity and possible exposure.
Respiratory	Wear respiratory protection if ventilation is inadequate. Particle filter with medium efficiency for solid and liquid particles.
General	Keep away from food, drink and animal feedstuffs. No eating, drinking or smoking during use and wash hands and face before breaks and after work.

Section 9 Physical and Chemical Properties

Appearance	Liquid
Colour	Dark brown
Odour	Characteristic
Odour Threshold	Not available
pH	4.1 – 5.4
Melting Point/Boiling Point	100°C
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	1.19g/cm ³
Water Solubility	Not available
Partition Coefficient:	Not available
Ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available
Particle Characteristics	Not available

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Possibility of hazardous reactions	None known.
Conditions to Avoid	None known.
Incompatible Materials	Strong acids, strong bases, strong oxidising agents.
Hazardous Decomposition Products	None known.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Harmful if swallowed. LD50 > 550 mg/kg (rat)
Dermal	Not applicable. LD50 > 5,000 mg/kg (rat)
Inhalation	Fatal if inhaled. Inhalation LC50 (4hr) 0.64 mg/L (rat)
Eye	Not applicable.
Skin	Causes skin irritation.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Causes damage to organs through single exposure.
STOT/RE	Causes damage to organs through prolonged or repeated exposure.

Acute Toxicity -

Chemical Name	LD50 (Oral)	LD50 (Dermal)	LC50 (inhalation)
Diquat dibromide (85-00-7)	30mg/kg (Cattle)	50-100mg/kg (rat)	0.121 mg/l (rat) Dust/mist

Section 12. Ecotoxicological Information

Ecological effects information	9.1A = Very toxic to aquatic life with long lasting effects. 9.3C = Harmful to terrestrial vertebrates.
Persistence and degradability	No data available
Bioaccumulation	No data available
Mobility in Soil	No data available
Other adverse effects	No data available
Acute fish toxicity:	Acute: Rainbow trout (<i>Oncorhynchus mykiss</i>) LC50 = >100mg/l (96h)
Toxicity for daphnia:	48 Hour-LC50 - Daphnia = 7mg/L
Toxicity to algae:	EC50 (96 hr) = 66 µg/L
Precautions:	Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method:

Triple rinse container and add residue to spray tank. Return empty container to an AgRecovery collection point for disposal.



Empty container precautions:

Avoid contamination of any water supply with chemical or empty container.

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

UN No	1760
Class - Primary	8
Packing Group	III
Proper Shipping Name	CORROSIVE LIQUID, N.O.S. (Diquat 20%)
Marine Pollutant	Yes
Special Provisions-Limited Quantities	If the product's individual container is below 5L, 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 2017

EPA Approval Code: HSR000446

HSNO Classification: 6.1C(inh), 6.1D(oral), 6.3A, 6.9A,8.1A, 9.1A, 9.3C

HSW (HS) Regulations 2017	Trigger Quantity
Certified Handlers	Not required
Location Certificate	Not required
Signage Trigger Quantities (Schedule 3)	100L (9.1A)
Emergency Response Plan (Schedule 5)	100L (9.1A)
Secondary Containment (Schedule 5)	100L (9.1A)
Tracking (Schedule 26)	Not required
For all further controls	Refer to EPA www.epa.govt.nz for controls document - HSR000446
HSNO Additional Controls (Restrictions of use)	
77A	None listed
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 pesticides.
ACVM Act and Regulations	
ACVM Approval No See www.foodsafety.govt.nz for registration controls	P8006

Section 16 Other Information

For proper and safe use of this product, please refer to the approval conditions laid down on the product label. The data contained in this safety data sheet is based on our current knowledge and describes the product only with regard to safety requirements. The data does not describe the products properties. Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any existing laws and legislation are observed.

Glossary

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 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

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