

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND COMPANY

Safety Data Sheet for: **MIDSTREAM**

Common name of active ingredient: Diquat as the cation
Intended Use: For use only as an aquatic herbicide
Dilution: Dependent upon situation of use and application method
 Maximum dose: Water depth under 30cm 0.5 litre/100sq.m
 Water depth over 30cm 1 litre/100sq.m (30fl.oz/100sq.m)

For further information contact: Scotts UK Professional, The Scotts Company (UK) Limited, Paper Mill Lane, Bramford, Ipswich, Suffolk, England IP8 4BZ. Telephone: (01473) 830492.
24hr Emergency Line Tel: 01865 407333

Date of Introduction: Early 1980's
Date of Withdrawal:
Date of Change:

2. COMPOSITION INFORMATION ON INGREDIENTS (Directive 91/155/EC)

Spec. No: MF 00116A

Ingredient(s)	Composition	CAS No	Symbol	R phrases
Diquat as the cation	8.8%w/w(100g/l)	2764-72-9	T	R24/25 R36/37/38
Propylene glycol	1-5%w/w	-	-	-

3. HAZARDS IDENTIFICATION

Classification: HARMFUL IN CONTACT WITH SKIN
 IRRITATING TO EYES AND SKIN

Symbol:



Ingestion: Low oral toxicity
Eye contact: Irritating to eyes.
Skin contact: Harmful in contact with skin, Irritating to skin.
Inhalation: Unlikely to cause harmful effects under normal conditions of handling and use.

HARMFUL

PRECAUTIONS (from the label): HARMFUL IN CONTACT WITH SKIN. IRRITATING TO EYES AND SKIN. WHEN USING DO NOT EAT DRINK OR SMOKE. KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS. WASH SPLASHES from skin or eyes immediately. WASH HANDS AND EXPOSED SKIN before meals and after work. KEEP OUT OF REACH OF CHILDREN. DO NOT DUMP surplus herbicide or containers in water or ditch bottoms. DO NOT USE TREATED WATER for human consumption within 24 hours for overhead irrigation within 10 days of treatment. IF YOU FEEL UNWELL, seek medical advice (show label where possible).

4. FIRST-AID MEASURES

Ingestion: SPEED IS ESSENTIAL. OBTAIN IMMEDIATELY MEDICAL ATTENTION. Immediately transfer patient to nearest hospital or medical centre, warning by telephone of the estimated time of arrival. Do not induce vomiting.

Eye contact: Immediately irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. Obtain immediate medical attention.

Skin contact: Take off immediately all contaminated clothing. Wash skin immediately with water, followed by soap and water. Such action is essential to minimise contact with skin. Contaminated clothing should be laundered before re-use. Obtain medical attention.

Inhalation: Remove patient from exposure, keep warm and at rest. Obtain medical attention.

First aid:
 If swallowed do not induce vomiting.

Medical Advice:
 Give up to 1 litre of 15% aqueous suspension of Fuller's Earth orally or via gastric tube, together with a suitable purgative (200 ml of a 20% aqueous solution of Mannitol).
 If ingested, wash out the stomach and test urine for the presence of diquat. If there is severe mouth ulceration give nothing by mouth until patient's condition has improved. Give intravenous fluids only.
 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.

5. FIRE-FIGHTING MEASURES

Keep fire exposed containers cool by spraying with water. Extinguishing media:- Small Fires: use foam, carbon dioxide or dry powder extinguishant. Large fires: use foam or water-fog; avoid use of water jet. Contain run-off water with, for example, temporary earth barriers.

Protective equipment:- Self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: (see also section 8); Ensure suitable personal protection during removal of spillages. This means wearing eye protection, chemically resistant gloves, boots and coveralls.

Clean up methods: Absorb spillages onto sand, earth or any suitable absorbent material. Transfer to a container for disposal (see section 13). Wash the spillage area with water. Washings must be prevented from entering surface water drains. Spillages or uncontrolled discharge into water courses must be alerted to the appropriate regulatory body.

7. HANDLING AND STORAGE

Handling: Read the label before use. Avoid contact with skin and eyes. When using do not eat drink or smoke. Wash face and hands before eating, drinking or smoking.

Storage Instructions: Keep containers tightly closed. Store undercover, away from food, drink and animal feeding stuffs. Protect from frost.

Shelf life: At least 2 years

Product packaging: 5 litre polythene bottle, outers of 4x5 litres

Special precautions: None known

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection (from the label): WEAR PROTECTIVE GLOVES AND FACE PROTECTION (FACESHIELD) when handling or applying the product. TAKE OFF IMMEDIATELY all contaminated clothing and wash underlying skin. WASH ALL PROTECTIVE CLOTHING thoroughly after use especially the inside of gloves. WASH SPLASHES from skin or eyes immediately. WHEN USING DO NOT EAT DRINK OR SMOKE. WASH HANDS AND EXPOSED SKIN before meals and after work. IF YOU FEEL UNWELL, seek medical advice immediately (show the label where possible).

Occupational Exposure Limits:

Diquat dibromide 0.5 mg/m³ LTEL (8hr TWA); 1.0mg/m³ STEL (15min)

Propylene glycol (vapour and particulates): 150ppm (474mg/m³) LTEL (8hr TWA)

Propylene glycol (particulates): 10mg/m³ LTEL (8hr TWA)

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical nature:	Viscous liquid	Flash point:	Does not flash
Appearance/Odour:	Dark red brown/Odourless	Flammability:	Not available
Water solubility:	Miscible	Decomposition temperature:	Not available
Lipid solubility:	Not available	Hazardous polymerization:	Not available
Specific Gravity:	1.12 @20°C	Explosion limits:	Not available
Boiling point:	Not available	pH:	6.0-7.5
Oxidising properties:	Not applicable	Other:	Rheomat 15 Viscometer – system C 70-250mPas

10. STABILITY AND REACTIVITY

Stability (normal conditions): Stable for 2 years

Conditions to avoid: None known

Incompatible with: Diquat is highly corrosive to most metals, e.g. aluminium, zinc, iron.

Hazardous decomposition products: Combustion or thermal decomposition will evolve toxic and irritant vapours

11. TOXICOLOGICAL INFORMATION

This health hazard assessment is based on consideration of the components of this product.

Acute Oral LD₅₀: Oral median Lethal Dose >2000mg/formulation/kg by calculation (rat)

Acute Dermal LD₅₀: Dermal median Lethal Dose >4000 mg/formulation/kg by calculation (rat)

Inhalation: Spray mist can cause epistaxis and sore throat. Diquat is not volatile. Respirable droplets are unlikely to pose any significant risk of bronchopulmonary damage

Skin : Harmful in contact with skin. Irritating. Solutions in contact with cuts of wounds can delay healing. Self-limiting nail anomalies can occur following prolonged contact with solutions of diquat.

Eyes: Irritating to the eyes. Corneal and conjunctival epithelial damage can occur and hospital supervision to monitor progress of healing is important.

Ingestion: Absorption of Diquat from the gastrointestinal tract is poor and slow. Diquat toxicity however, can result in excessive pooling of fluid in the gastrointestinal tract with subsequent dehydration, diarrhoea and discomfort.

Other: None known

References: Manufacturer

12. ECOLOGICAL INFORMATION

Diquat is rapidly adsorbed and deactivated by soil. Unlikely to be hazardous to aquatic life.

Precautions (from the label): DO NOT DUMP surplus herbicide or containers in water or ditch bottoms. DO NOT USE TREATED WATER for human consumption within 24 hours or for overhead irrigation within 10 days of treatment.

References: Supplier

13. DISPOSAL CONSIDERATIONS:

User: Empty containers should not be used for other purposes. Do not contaminate ponds, waterways or ditches with chemical or used containers. Dispose of product and empty containers according to the Code of Practice for the Use of Approved Pesticides in Amenity and Industrial Areas (NAAC/NTC). Disposal should be in accordance with local or national legislation.

14. TRANSPORT INFORMATION:

UN No: 1760

Proper Shipping Name: Corrosive Liquid, N.O.S. (contains diquat as dibromide salts)

Class: 8

Packing Group: III

EmS: 8-15

MFAG: 760

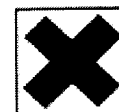
Marine Pollutant: Not classified as a Marine Pollutant

ADR Item No: 66° (c)

UK Road Category: 3

15. REGULATORY INFORMATION:

Classification: HARMFUL IN CONTACT WITH SKIN Symbol(s):
IRRITATING TO EYES AND SKIN



Current Registration Number: UK 09267 EIRE 91861

Previous Registration Number(s): UK 07739 UK 06824 UK 01348

HARMFUL

PRECAUTIONS (from the label): WEAR PROTECTIVE GLOVES AND FACE PROTECTION (FACE SHIELD) when handling or applying the product. TAKE OFF IMMEDIATELY all contaminated clothing and wash underlying skin. WASH ALL PROTECTIVE CLOTHING thoroughly after use especially the inside of gloves. WHEN USING DO NOT EAT, DRINK OR SMOKE. WASH SPLASHES from skin or eyes immediately. WASH HANDS AND EXPOSED SKIN before meals and after work. KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS. KEEP OUT OF REACH OF CHILDREN. KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place. EMPTY CONTAINER COMPLETELY and dispose of safely. DO NOT REUSE this container for any purpose. DO NOT DUMP surplus herbicide or containers in water or ditch bottoms. DO NOT USE TREATED WATER for human consumption within 24 hours or for overhead irrigation within 10 days of treatment. IF YOU FEEL UNWELL, seek medical advice (show label where possible).
FIRST AID: If swallowed, induce vomiting and take patient to hospital immediately.

This product is classified in accordance with the Control of Pesticides Regulations 1986. The Control of Substances Hazardous to Health Regulations may apply to the use of this product at work.

16. OTHER INFORMATION

For further advice authorized persons (Doctor/Veterinary Surgeon) may contact the National Poisons Information Service Centre:

Belfast: 01232 240503
Birmingham: 0121 507 558 or 0121 507 5589
Cardiff: 01222 709901
Dublin: 00 3531 8379964 or 00 3531 8379966
Edinburgh: 0131 5362300 or 0131 5361000
Leeds: 0113 245 0530 or 01132 923547
London: 0171 635 9191
Newcastle: 0191 232 5131

Reference number: SDS No:035

Version: 1

Date of Sheet: August 1999

The appearance of a 'REVISION' stamp and/or colour line in the border of any of the boxes indicates a change in the information to the previous issue.

The information on this sheet is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product nor where instructions or recommendations are not followed.