




Material Safety Data Sheet

NFPA	Transport Symbol
	

Preparation Date 14-Jan-2010

Revision Date 14-Jan-2010

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Code 2121801
Product Name ACETO DIQUAT 2L AG HERBICIDE
Synonyms Dipyrido[1,2-A:2', 1'- C]Pyrazinium, 6,7-Dihydro-, Bromide (1:2); Ethylene Dipyridylum Dibromide
Formula Mixture
CAS Number 85-00-7 + Other Ingredients
EPA Registration Number 2749-530
Contact
ACETO AGRICULTURAL
CHEMICALS CORP.
One Hollow Lane
Lake Success, NY 11042-1215
Phone: (516) 627-6000
Fax: (516) 627-6093
Email: regulatory@aceto.com
ChemTrec Emergency Telephone Numbers 1-800-424-9300
1-703-527-3887

2. HAZARDS IDENTIFICATION

Emergency Overview

Toxic. Toxic by inhalation. Harmful if swallowed. May be harmful in contact with skin. Toxic: danger of serious damage to health by prolonged exposure if swallowed. Irritating to skin. Irritating to respiratory system. Contact with eyes may cause irritation. Dangerous for the environment. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Appearance Light brown, to, Dark brown.

Physical State Liquid.

Odor Odorless

OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Mexico - Grade

Not available

Potential Health Effects**Principle Routes of Exposure** Eye contact, Skin contact, Inhalation, Ingestion.**Acute Effects**

Eyes Contact with eyes may cause irritation. Avoid contact with eyes.

Skin May be harmful in contact with skin. Irritating to skin. Avoid contact with skin.

Inhalation Toxic by inhalation. Irritating to mucous membranes. Irritating to respiratory system. Avoid breathing vapors or mists.

Ingestion Harmful if swallowed. Toxic: danger of serious damage to health by prolonged exposure if swallowed. Do not ingest.

Additional Acute Effects Target Organ Effects.**Chronic Effects** Avoid repeated exposure.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions Not available**Interactions with Other Chemicals** Not available**Potential Environmental Effects** Dangerous for the environment. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Avoid release to the environment.**3. COMPOSITION/INFORMATION ON INGREDIENTS****CAS Number** 85-00-7 + Other Ingredients**Formula** Mixture**Hazardous Components**

Chemical Name	CAS-No	Weight %
Diquat dibromide	85-00-7	37.3

Non-hazardous Components

Chemical Name	CAS-No	Weight %
Other Ingredients	N/A	62.7

4. FIRST AID MEASURES**General Advice** Show this safety data sheet to the doctor in attendance.

Environmental Precautions	Local authorities should be advised if significant spillages cannot be contained. Do not allow material to contaminate ground water system. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Should not be released into the environment.
Methods for Containment	Not available
Methods for Cleaning up	Evacuate personnel to safe areas. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Clean contaminated surface thoroughly.
Other Information	Not applicable

7. HANDLING AND STORAGE

Handling	Use only in an area equipped with a safety shower. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation. Use only in well-ventilated areas. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Avoid repeated exposure.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labelled containers. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	Ontario TWAEV	Mexico
Diquat dibromide	= 0.1 mg/m ³ TWA = 0.5 mg/m ³ TWA Skin - potential significant contribution to overall exposure by the cutaneous route		= 0.1 mg/m ³ TWAEV = 0.5 mg/m ³ TWAEV Absorption through skin, eyes, or mucous membranes	= 1 mg/m ³ STEL = 0.5 mg/m ³ TWA

Engineering Controls Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Eye/face Protection	Tightly fitting safety goggles. Face-shield.
Skin Protection	Wear protective gloves/clothing. Rubber gloves. Chemical resistant apron.
Respiratory Protection	No special protective equipment required

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Wash hands and face before breaks and immediately after handling the product. For additional information consult the EPA Pesticide Label.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Light brown, to, Dark brown	
Physical State	Liquid	
Odor	Odorless	
pH	Not available	
Flash Point	Not available	
Autoignition Temperature	Not available	
Boiling Point/Range	Not available	
Melting Point/Range	Not available	
Flammability Limits in Air	Lower Not available	Upper Not available
Vapor Pressure	Not available	
Vapor Density	Not available	
Specific Gravity	1.2 g/ml@20°C	
Water Solubility	Soluble	
Reactivity in Water	Not available	
Molecular Weight	Not available	

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions
Conditions to Avoid	Keep away from open flames, hot surfaces and sources of ignition. Do not store in aluminum containers. Contact with aluminum may form flammable hydrogen gas upon contact.
Incompatible Materials	Oxidizing agents. Metals. Strong Alkalies. Anionic wetting agents (alkyl and alkylaryl sulfonates). Corrosive to aluminum.
Hazardous Decomposition Products	Carbon monoxide, Carbon dioxide (CO ₂), Nitrogen oxides (NO _x), Halogenated compounds, Hydrogen bromide gas.
Possibility of Hazardous Reactions	Flammable hydrogen gas may be formed on contact with aluminum.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

To the best of our knowledge, the complete toxicological properties have not been thoroughly investigated.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Diquat dibromide	= 120 mg/kg Oral LD50 Rat		

Chronic Toxicity

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA	Mexico
Diquat dibromide	A4 - Not Classifiable as a Human Carcinogen				A4 - Not classifiable as a human carcinogen

Irritation

Skin,rabbit: Slightly ; Eye,rabbit: Mildly

Corrosivity

Not available

Sensitization

Not available

Neurological Effects

Not available

Mutagenic Effects

Not available

Reproductive Effects

Not available

Developmental Effects

Not available

Target Organ Effects

Eyes, Skin, Respiratory system, Kidney, Liver, Central nervous system (CNS), [Diquat dibromide].

12. ECOLOGICAL INFORMATION

Ecotoxicity

Dangerous for the environment. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Avoid release to the environment.

Diquat dibromide**Freshwater Algae Data**

96 Hr EC50 *Selenastrum capricornutum*: 0.011 mg/L

Water Flea Data

48 Hr EC50 *Daphnia magna*: 1.2 mg/L

Persistence / Degradability

Not available

Bioaccumulation / Accumulation

Not available

Mobility in Soil

Not available

Diquat dibromide

log Pow = -4.6 20 °C

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of in accordance with local regulations. Dispose of in accordance to EPA Pesticide Label Instructions.
Contaminated Packaging	Dispose of in accordance with local regulations. Dispose of in accordance to EPA Pesticide Label Instructions.
US EPA Waste Number	Not available

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name	Corrosive liquid, n.o.s
Hazard Class	8
UN-No	UN1760
Packing Group	III
Reportable Quantity (RQ)	=454 kg final RQ listed under Diquat (@37.3% Diquat dibromide)
Description	UN1760,Corrosive liquid, n.o.s.(Diquat dibromide),8,PG III, RQ

TDG

Proper Shipping Name	Corrosive liquid, n.o.s
Hazard Class	8
UN-No	UN1760
Packing Group	III
Description	UN1760,Corrosive liquid, n.o.s.(Diquat dibromide),8,PG III

MEX

Proper Shipping Name	Corrosive liquid, n.o.s
Hazard Class	8
UN-No	UN1760
Packing Group	III
Description	UN1760,Corrosive liquid, n.o.s.(Diquat dibromide),8,III

ICAO

UN-No	UN1760
Proper Shipping Name	Corrosive liquid, n.o.s
Hazard Class	8
Packing Group	III
Description	UN1760,Corrosive liquid, n.o.s.*(Diquat dibromide),8,PG III, RQ

IATA

UN-No	UN1760
Proper Shipping Name	Corrosive liquid, n.o.s
Hazard Class	8
Packing Group	III
ERG Code	8L
Description	UN1760,Corrosive liquid, n.o.s.*(Diquat dibromide),8,PG III, RQ

IMDG/IMO

Proper Shipping Name	Corrosive liquid, n.o.s
Hazard Class	8
UN-No	UN1760
Packing Group	III
EmS No.	F-A, S-B
Description	UN1760,Corrosive liquid, n.o.s.(Diquat dibromide),8,PG III, RQ

RID

Proper Shipping Name	Corrosive liquid, n.o.s
Hazard Class	8
UN-No	UN1760
Packing Group	III
Classification Code	C9
Description	UN1760,Corrosive liquid, n.o.s.(Diquat dibromide),8,III,RID
ADR/RID-Labels	8

ADR

Proper Shipping Name	Corrosive liquid, n.o.s
Hazard Class	8
UN-No	UN1760
Packing Group	III
Classification Code	C9
Description	UN1760,Corrosive liquid, n.o.s.(Diquat dibromide),8,III,ADR
ADR/RID-Labels	8

ADN

Proper Shipping Name	Corrosive liquid, n.o.s
Hazard Class	8
UN-No	UN1760
Packing Group	III
Classification Code	C9
Special Provisions	274
Description	UN1760,Corrosive liquid, n.o.s.(Diquat dibromide),8,III
Hazard Labels	8
Limited Quantity	LQ7
Equipment Requirements	PP, EP

15. REGULATORY INFORMATION**International Inventories**

U.S.A. (TSCA)	Does not Comply
Canada (DSL)	Does not Comply
EU (ELINCS)	Does not Comply
EU (EINECS)	Does not Comply
Japan (ENCS)	Does not Comply
China	Does not Comply
Korea (KECL)	Does not Comply

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Philippines (PICCS) Does not Comply
Australia (AICS) Does not Comply

Chemical Name	U.S.A. (TSCA)	Canada (DSL)	EU (EINECS)	EU (ELINCS)
Diquat dibromide	-	Present	201-579-4	-
Other Ingredients	-	-	-	-

Chemical Name	Japan (ENCS)	China	Korea (KECL)	Philippines (PICCS)	Australia (AICS)
Diquat dibromide	5-3913 5-3913	-	KE-10660	Present	Present
Other Ingredients	-	-	-	-	-

This material as a whole is exempt from the TSCA Inventory // FIFRA Regulated Pesticide

USA

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

Acute Health Hazard Yes
Chronic Health Hazard Yes
Fire Hazard No
Sudden Release of Pressure Hazard No
Reactive Hazard No

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any HAPs.

Chemical Name EPA: CERCLA RQ
 Diquat dibromide = 454 kg final RQ listed under Diquat

State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Diquat dibromide	Present	sn 0808	Environmental hazard		Toxic

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

Not determined

16. OTHER INFORMATION

Prepared By	Environmental Health and Safety, Regulatory Affairs
Preparation Date	14-Jan-2010
Revision Date	14-Jan-2010
Revision Summary	Not available

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS