



Safety Data Sheet

Revision Date: 10-Aug-2017

Version 2

1. IDENTIFICATION

Product Identifier

Product Name

Armory 240 Herbicide

Other means of identification

SDS #

ADAMA-230

Registration Number(s)

Pesticide Control Product Reg. No. 32726

UN/ID No

UN1760

Recommended use of the chemical and restrictions on use

Recommended Use

Herbicide.

Details of the supplier of the safety data sheet

Manufacturer Address

ADAMA Agricultural Solutions Canada Ltd.
300 – 191 Lombard Avenue
Winnipeg, Manitoba R3B 0X1
1-855-264-6262

Emergency Telephone Number

Emergency Telephone (24 hr)

For fire, spill and/or leak contact INFOTRAC:
1-800-535-5053 (North America) 1-352-323-3500 (International)
For medical emergencies and health/safety inquiries, contact ProPharma Group:
1-877-250-9291

2. HAZARDS IDENTIFICATION

This chemical is a product registered by the Canadian Pest Control Products Act and is subject to certain labeling requirements under federal law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-PCPA registered chemicals. Please see Section 15 for additional information. This product has been classified according to Canada's Hazardous Product Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

Appearance Dark brown liquid

Physical state Liquid

Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 3
Serious eye damage/eye irritation	Category 2B
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1
Corrosive to Metals	Category 1

Signal Word

Danger

Hazard statements

Toxic if inhaled
 Harmful if swallowed
 Causes eye irritation
 May cause respiratory irritation
 Causes damage to organs through prolonged or repeated exposure
 May be corrosive to metals

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Keep only in original container

Precautionary Statements - Response

Get medical advice/attention if you feel unwell
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth
 IN CASE OF SPILL: Absorb spillage to prevent material damage

Precautionary Statements - Storage

Keep containers tightly closed in a dry, cool and well-ventilated place
 Store locked up
 Keep out of the reach of children
 Store in corrosive resistant container with a resistant inner liner

Precautionary Statements - Disposal

Dispose of in accordance with federal, provincial and local regulations to an approved waste disposal plant

Other hazards

Very toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%
Diquat dibromide	85-00-7	37-40

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First Aid Measures**General Advice**

Take container, label or product name and pest control product registration number with you when seeking medical attention.

Eye Contact	IMMEDIATELY hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.
Skin Contact	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.
Inhalation	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.
Ingestion	Call a poison control centre or doctor IMMEDIATELY for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

Most important symptoms and effects

Symptoms	Toxic if inhaled. Harmful if swallowed. Causes eye irritation. May cause respiratory irritation.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	To be effective, treatment for ingestion of the product must begin IMMEDIATELY. If swallowed, give adsorbent suspension, for example either activated charcoal (100 g for adults or 2 g/kg body weight for children) or bentonite clay (100 to 150 g for adults or 2 g/kg body weight for children), mixed with a purgative (MgSO ₄ , Na ₂ SO ₄ or mannitol). Maintain and monitor electrolyte and fluid status daily. Consider haemodialysis or haemoperfusion using charcoal column. If in eyes, treat symptomatically, using antibiotics and steroids as necessary. Symptoms may develop gradually. Severe damage may be caused by apparently trivial contact and healing may be delayed. Medical supervision should continue until complete healing has occurred. The use of supplemental oxygen is contraindicated. Do not administer supplemental oxygen unless the patient develops severe hypoxemia.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media No information available.

Specific Hazards Arising from the Chemical

No specific hazard known.

Hazardous Combustion Products Smoke, fumes or vapors, and oxides of carbon.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Use personal protective equipment as required.
For Emergency Responders	Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions	See Section 12 for additional Ecological Information.
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Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so. Prevent run-off to sewers, streams or other bodies of water.
Methods for Clean-Up	Keep in suitable, closed containers for disposal. For waste disposal, see section 13 of the SDS.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on Safe Handling	Keep out of reach of children and animals. DO NOT get on skin or clothing. DO NOT get in eyes. Do not eat, drink, handle or use tobacco, or apply cosmetics in areas where there is potential for exposure to this product. Users should wash hands and face before eating, drinking, chewing gum, handling tobacco or using the toilet. Store and wash all protective clothing separately from household laundry. Do not contaminate food, feed, domestic or irrigation water supplies, lakes, streams and ponds.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up. Keep only in original container. Store in a safe place, away from children. To prevent contamination, store this product away from food or feed. Store above 0° C (32° F). If crystallization occurs because the product is stored below 0° C (32° F), warm product to room temperature and agitate gently until reconstituted.
Incompatible Materials	None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Diquat dibromide 85-00-7	TWA: 0.5 mg/m ³ inhalable particulate matter TWA: 0.1 mg/m ³ respirable particulate matter S*	(vacated) TWA: 0.5 mg/m ³	TWA: 0.5 mg/m ³

Appropriate engineering controls

Engineering Controls	Ensure adequate ventilation, especially in confined areas.
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Individual protection measures, such as personal protective equipment

Eye/Face Protection	Chemical -resistant headgear, gloves and protective eyewear.
Skin and Body Protection	Chemical resistant coveralls over a long-sleeved shirt and long pants, chemical-resistant footwear plus socks.
Respiratory Protection	Use respirator during mixing, loading and application.
General Hygiene Considerations	Users should remove personal protective equipment immediately after handling this product. Wash the outside of the gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. REMOVE CONTAMINATED CLOTHING IMMEDIATELY. Launder contaminated clothing prior to reuse and separate from household laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid		
Appearance	Dark brown liquid	Odor	Not determined
Color	Not determined	Odor Threshold	Not determined

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	4.5-5.25	
Melting Point/Freezing Point	Not applicable	
Boiling Point/Boiling Range	Not determined	
Flash Point	Not determined	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Not applicable- liquid	
Flammability Limits in Air		
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not applicable	
Vapor Density	Not determined	
Relative Density	1.15-1.25	@ 20°C
Water Solubility	Not determined	
Solubility in other solvents	Not applicable	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY**Reactivity**

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to Avoid

Exposure to air or moisture over prolonged periods.

Incompatible Materials

None known based on information supplied.

Hazardous Decomposition Products

Smoke, fumes or vapors, and oxides of carbon.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Eye Contact	Causes eye irritation.
Skin Contact	Avoid contact with skin.
Inhalation	Toxic by inhalation. May cause respiratory irritation.
Ingestion	Harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Diquat dibromide 85-00-7	= 120 mg/kg (Rat) = 214 mg/kg (Rat)	50 - 100 mg/kg (Rat) = 433 mg/kg (Rat)	-

Information on physical, chemical and toxicological effects**Symptoms**

Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Carcinogenicity**

Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

STOT - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Numerical measures of toxicity

No data available

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Very toxic to aquatic life with long lasting effects.

Persistence/Degradability

Not readily biodegradable.

Bioaccumulation

-4.6 @ 20°

Mobility

Not determined

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods****Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations. Waste codes should be assigned by the user based on the application for which the product was used. For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

Contaminated Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations. Please review product label for Canadian container disposal requirements.

14. TRANSPORT INFORMATION**DOT**

UN/ID No	UN1760
Proper Shipping Name	Corrosive liquid, n.o.s. (Diquat dibromide)
Hazard Class	8
Packing Group	III
Special precautions for user	Yes

IATA

UN/ID No	UN1760
Proper Shipping Name	Corrosive liquid, n.o.s. (Diquat dibromide)
Hazard Class	8
Packing Group	III
Environmental Hazard	Yes

IMDG

UN/ID No	UN1760
Proper Shipping Name	Corrosive liquid, n.o.s. (Diquat dibromide)
Hazard Class	8
Packing Group	III
Marine Pollutant	Yes

TDG

UN/ID No	UN3265
Proper Shipping Name	Corrosive Liquid, Acidic, Organic, N.O.S. (Diquat Dibromide)
Hazard Class	8
Packing Group	III
Marine Pollutant	Yes

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL/NDSL	EINECS/E LINC	ENCS	IECSC	KECL	PICCS	AICS
Diquat dibromide	X	X	X	Present		Present	X	X

Legend:*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINC - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS - Japan Existing and New Chemical Substances**IECSC - China Inventory of Existing Chemical Substances**KECL - Korean Existing and Evaluated Chemical Substances**PICCS - Philippines Inventory of Chemicals and Chemical Substances**AICS - Australian Inventory of Chemical Substances***US Federal Regulations**

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Diquat dibromide 85-00-7	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

SARA 313

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Diquat dibromide				X

US State Regulations**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Diquat dibromide 85-00-7	X	X	X

Pesticide Registration Number

Pesticide Control Product Reg. No. 32726

Pest Control Product Statement

This chemical is a product registered by the Canadian Pest Control Products Act and is subject to certain labeling requirements under federal law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-PCPA registered chemicals.

Read the approved label, authorized under the Pest Control Products Act, prior to using or handling the pest control product.

Product Label

WARNING! HARMFUL OR FATAL IF SWALLOWED. HARMFUL IF INHALED, AVOID INHALING/BREATHING DUST, SPRAYS, ETC. CAUSES SUBSTANTIAL EYE INJURY AND SKIN IRRITATION. DO NOT GET IN EYES, SKIN OR ON CLOTHING. NEVER TRANSFER TO OTHER CONTAINERS. KEEP OUT OF REACH OF CHILDREN AND ANIMALS.

Difference between SDS and product label

	Label	SDS
Signal Word	Warning/Poison	Danger
Acute toxicity - Oral	Harmful or fatal if swallowed	Harmful if swallowed
Acute toxicity – Inhalation	Harmful if inhaled	Toxic if inhaled
Skin corrosion/irritation	Causes skin irritation	NA
Eye damage/ irritation	Causes substantial eye injury	Causes eye irritation
STOT SE	NA	May cause respiratory irritation
STOT RE	NA	Causes damage to organs through prolonged or repeated exposure

16. OTHER INFORMATION**NFPA****Health Hazards**

Not determined

Flammability

Not determined

Instability

Not determined

Special Hazards

Not determined

HMIS**Health Hazards**

Not determined

Flammability

Not determined

Physical hazards

Not determined

Personal Protection

Not determined

Revision Date:

10-Aug-2017

Revision Note:

New address

Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet