



SAFETY DATA SHEET

ARMORY 240

Revision Date 19-Jun-2017

Version 2

Product No HRB01056

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PCP 32726

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

ARMORY 240

Pure substance/mixture Mixture

Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Herbicide
Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address ADAMA Agan Ltd
P.O.B. 262
ASHDOD Israel

For further information, please contact

Email address SDS@ADAMA.COM

Emergency Telephone

Emergency Telephone +972-03-6106666 Subscription no. 36789 (ADAMA Makhteshim Ltd.)

Section 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Acute toxicity - Oral	Category 4 - (H302)
Acute toxicity - Inhalation (Dusts/Mists)	Category 3 - (H331)
Serious eye damage/eye irritation	Category 2B - (H320)
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Specific target organ toxicity (repeated exposure)	Category 1 - (H372)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)
Corrosive to metals	Category 1 - (H290)

Label Elements

Hazard pictograms



Signal word

Danger

Hazard Statements

H290 - May be corrosive to metals
 H302 - Harmful if swallowed
 H320 - Causes eye irritation
 H331 - Toxic if inhaled
 H335 - May cause respiratory irritation
 H372 - Causes damage to organs through prolonged or repeated exposure
 H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements

P102 - Keep out of reach of children
 P234 - Keep only in original container
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P270 - Do not eat, drink or smoke when using this product
 P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P390 - Absorb spillage to prevent material damage
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
 P406 - Store in corrosive resistant/ plastic container with a resistant inner liner
 P501 - Dispose of contents/ container to an approved waste disposal plant

Other Hazards

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

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

Section 4: FIRST AID MEASURES

First aid measures

General advice

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection!.

Inhalation

Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.

Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Ingestion Do NOT induce vomiting. Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.

Self-protection of the first aider Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms None known

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

No information available.

Special hazards arising from the substance or mixture

No specific hazard known.

Advice for firefighters

Wear self-contained breathing apparatus and protective suit

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for cleaning up

Take up mechanically, placing in appropriate containers for disposal.

Reference to other sections

Other Information

See also section 8,13

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems.

General Hygiene Considerations

When using do not eat, drink or smoke. Keep away from food, drink and animal feeding stuffs. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Take off all contaminated clothing and wash it before reuse. Wear suitable gloves and eye/face protection.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

Risk Management Methods (RMM)

The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

National occupational exposure limits

Chemical Name	European Union	United Kingdom	France	Spain	Germany
Diquat dibromide 85-00-7		STEL: 1 mg/m ³ TWA: 0.5 mg/m ³	TWA: 0.5 mg/m ³		
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
Diquat dibromide 85-00-7		TWA: 0.5 mg/m ³ TWA: 0.1 mg/m ³		STEL: 1.5 mg/m ³ Skin	
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Diquat dibromide 85-00-7	Skin STEL 1 mg/m ³ TWA: 0.5 mg/m ³		NDSch: 0.3 mg/m ³ TWA: 0.1 mg/m ³ Skin	TWA: 0.5 mg/m ³ STEL: 1.5 mg/m ³	TWA: 0.5 mg/m ³ STEL: 1 mg/m ³

Exposure controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

- Eye/face protection** Tight sealing safety goggles.
- Hand Protection** Gloves made of plastic or rubber.
- Body Protection** Suitable protective clothing, Gloves made of plastic or rubber, Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact, Wear chemical resistant clothing such as gloves, apron, boots or whole bodysuits made from neoprene, as appropriate, Rubber boots.
- Respiratory protection** Use only with adequate ventilation.

General Hygiene Considerations When using do not eat, drink or smoke. Keep away from food, drink and animal feeding stuffs. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Take off all contaminated clothing and wash it before reuse. Wear suitable gloves and eye/face protection.

Environmental exposure controls Do not allow into any sewer, on the ground or into any body of water. Local authorities should be advised if significant spillages cannot be contained. Prevent product from entering drains.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

<u>Property</u>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Appearance			
Physical state	: Liquid		
Color	: dark brown		
Odor	: No data available		
Odor threshold	: No data available		
pH	: 4.5-5.25		
Melting point/freezing point °C	: ---		Not Applicable
Boiling point/boiling range °C	: No data available		
Flash point °C	: No data available		
Evaporation rate	: ---		No data available
Flammability (solid, gas)	: Not applicable for liquids		
Upper/lower flammability or explosive limits	: No data available		
Vapor pressure kPa	: ---		Not Applicable
Vapor density	: No data available		
Relative density	: 1.15-1.25		20 °C
Solubility(ies) mg/l	: ---		Not Applicable
Partition Coefficient (n-octanol/water) Log Pow	:		See Section 12 for more information
Autoignition temperature °C	: No data available		
Decomposition temperature °C	: No data available		
Kinematic viscosity mm ² /s 40 °C	: ---		No data available
Explosive properties	: No data available		
Oxidizing properties	: No data available		
Other Information			
Bulk density g/ml	:		Not Applicable
Surface tension mN/m	: ---		No data available

Section 10: STABILITY AND REACTIVITY

Reactivity

Not available.

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Exposure to air or moisture over prolonged periods.

Incompatible Materials

No information available

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Section 11: TOXICOLOGY INFORMATION

Information on toxicological effects

Acute toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Oral LD50 mg/kg	:			No data available
Dermal LD50 mg/kg	:			No data available
Inhalation LC50 mg/l/4h	:			No data available
Skin corrosion/irritation	:			No data available
Serious eye damage/eye irritation	:			No data available
Respiratory/skin sensitization	:			No data available

Chronic toxicity

Germ cell mutagenicity

Chemical Name	
Diquat dibromide	: Not classified

Carcinogenicity

Chemical Name	
Diquat dibromide	: Not Carcinogenic

Reproductive toxicity

Chemical Name	
Diquat dibromide	: Not toxic for the reproductive system

STOT - single exposure

Chemical Name	
Diquat dibromide	: No data available

STOT - repeated exposure

Chemical Name	
Diquat dibromide	: No data available

Aspiration hazard

Chemical Name	
Diquat dibromide	: No data available

Section 12: ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Acute toxicity				
Fish 96-hour LC50 mg/l	:			No data available
Crustacea 48-hour EC50 mg/l	:			No data available
Algae 72-hour EC50 mg/l	:			No data available
Other plants EC50 mg/l	:			No data available

Terrestrial Toxicity

Birds Oral LD50 mg/kg				
Chemical Name				
Diquat dibromide	: -	No data available		No data available

Bees Oral LD50 µg/bee

Chemical Name

Diquat dibromide : - No data available

Persistence and degradability

Abiotic Degradation	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
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Water DT50 days			
Chemical Name			
Diquat dibromide	: 12-24		hours

Soil DT50 days			
Chemical Name			
Diquat dibromide	: >1 y		20 °C, aerobic

Biodegradation			
Chemical Name			
Diquat dibromide	: Not readily biodegradable		

Bioaccumulative potential

Partition Coefficient	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
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(n-octanol/water) Partition Coefficient (n-octanol/water) Log Pow			
Chemical Name			
Diquat dibromide	: -4.6		20 °C

Bioconcentration factor (BCF)			
Chemical Name			
Diquat dibromide	:		No data available

Mobility in soil

Adsorption/Desorption	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
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Chemical Name			
Diquat dibromide	: -		No data available

Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB

Other adverse effects

No information available.

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
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Contaminated packaging	Do not reuse container.
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Other Information	Waste codes should be assigned by the user based on the application for which the product was used.
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Section 14: TRANSPORTATION INFORMATION

<u>IMDG/IMO</u>	
UN/ID No *	1760

Proper shipping name CORROSIVE LIQUID, N.O.S (Diquat dibromide)
Hazard Class 8
Packing Group III
Marine pollutant Yes
Special precautions for user

RID/ADR

UN/ID No * 1760
Proper shipping name CORROSIVE LIQUID, N.O.S (Diquat dibromide)
Hazard Class 8
Packing Group III
Environmental hazard Yes
Special precautions for user

ICAO/IATA

UN/ID No * 1760
Proper shipping name CORROSIVE LIQUID, N.O.S (Diquat dibromide)
Hazard Class 8
Packing Group III
Environmental hazard Yes
Special precautions for user
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not Applicable



* Note: UN3077 & UN3082 – These products may be transported as non-dangerous goods under the special provisions of IMDG Code 2.10.2.7; ADR SP375 and ICAO/IATA A197 when packed in single or inner packaging of up to 5L for liquids or 5 kg or less for solids.

Section 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

Section 16: OTHER INFORMATION

Revision Note Changes made to the last version are labeled with this sign ***.

List of Acronyms

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CAS Number - Chemical Abstracts Service number
EC Number - EINECS and ELINCS Number
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
OECD - Organization for Economic Co-operation and Development
PBT - Persistent, Bioaccumulative and Toxic substance

RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
STOT - Specific Target Organ Toxicity
vPvB - Very Persistent and Very Bioaccumulative

Disclaimer

The information provided in this Material 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