

Issue Date 18-May-2025

Revision Date 18-May-2025

Version 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** Sharda Endothall 28.6% + Diquat 10.6% SL ABN: Amphibian SL Herbicide

### Other means of identification

**Product Code** 83529-311

**UN/ID no** UN2902

**Synonyms** None

**Registration Number(s)** 83529-311

### Recommended use of the chemical and restrictions on use

**Recommended Use** Herbicide

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

Sharda USA LLC  
P.O. Box 640  
Hockessin, DE 19707  
Website: www.shardausa.com

### Emergency telephone number

**Company Phone Number** 610-350-6930 (US)  
+91 22 5678 2800 (India)  
**Emergency Telephone** CHEMTREC: 800-424-9300  
CHEMTREC: 703-527-3887  
POISON CONTROL CENTER: 800-222-1222

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Specific target organ toxicity (repeated exposure)	Category 1

### Label elements

#### **Emergency Overview**

#### **Danger**

#### **Hazard statements**

Toxic if swallowed  
Harmful if inhaled  
Causes skin irritation  
Causes serious eye damage  
May cause an allergic skin reaction  
Causes damage to organs through prolonged or repeated exposure



**Appearance** Liquid

**Physical state** liquid

**Odor** None

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Use only outdoors or in a well-ventilated area  
Wear protective gloves/protective clothing/eye protection/face protection  
Contaminated work clothing should not be allowed out of the workplace  
Do not breathe dust/fume/gas/mist/vapors/spray

**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  
Immediately call a POISON CENTER or doctor/physician  
IF ON SKIN: Wash with plenty of soap and water  
Take off contaminated clothing and wash before reuse  
If skin irritation or rash occurs: 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 you feel unwell  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
Rinse mouth

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other Information**

Toxic to aquatic life with long lasting effects. Toxic to aquatic life.

**Unknown acute toxicity**

0% of the mixture consists of ingredient(s) of unknown toxicity

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance**

Not applicable

**Mixture**

Chemical Name	CAS No	Weight-%
Other ingredients *	Proprietary	30 - 60
Endothal-potassium	2164-07-0	28.6
Diquat dibromide	85-00-7	10.6
Ethylene glycol *	107-21-1	1 - 5

\*The exact percentage (concentration) of composition has been withheld as a trade secret. If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

#### 4. FIRST AID MEASURES

##### Description of first aid measures

<b>General advice</b>	Call a poison control center or doctor for treatment advice. Have the product containers or label with you when calling a poison control center or doctor, or going for treatment.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison control center or doctor for treatment advice.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician. Call a poison control center or doctor for treatment advice.
<b>Inhalation</b>	Move victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician or poison control center immediately. Call a poison control center or doctor for treatment advice.
<b>Ingestion</b>	Call a physician or poison control center immediately. Drink 1 or 2 glasses of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.
<b>Self-protection of the first aider</b>	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

##### Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	May cause skin irritation. May cause redness and tearing of the eyes. May result in permanent damage including blindness. Coughing and/ or wheezing. May cause allergic skin reaction.
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##### Indication of any immediate medical attention and special treatment needed

<b>Note to physicians</b>	Treat symptomatically.  Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression, and convulsion may be needed. If in eyes, treat symptomatically. Symptoms may develop gradually. Severe damage may be caused by apparently trivial contact and healing may be delayed. Medical supervision should be continued until healing is complete.
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#### 5. FIRE-FIGHTING MEASURES

##### Suitable extinguishing media

Dry chemical, CO<sub>2</sub>, water spray or regular foam. Move containers from fire area if you can do it without risk. Dike fire-control water for later disposal. Water spray, fog or regular foam.

**Unsuitable extinguishing media** None.

##### Specific hazards arising from the chemical

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

**Hazardous combustion products** Carbon oxides. Hydrogen chloride.

**Explosion data**

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

**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. Cool containers / tanks with water spray.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Keep people away from and upwind of spill/leak.

**For emergency responders** Use personal protection recommended in Section 8. Ventilate the area.

**Environmental precautions**

**Environmental precautions** Prevent entry into waterways, sewers, basements or confined areas.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Cover liquid spill with sand, earth or other non-combustible absorbent material. Sweep up and shovel into suitable containers for disposal.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling** 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. Avoid contact with skin, eyes or clothing.

**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 away from food, drink and animal feeding stuffs. Keep in properly labeled containers.

**Packaging materials** Do not reuse container.

**Incompatible materials** Strong oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH REL/IDLH
Diquat dibromide 85-00-7	TWA: 0.5 mg/m <sup>3</sup> inhalable fraction TWA: 0.1 mg/m <sup>3</sup> respirable fraction Skin*	TWA: 0.5 mg/m <sup>3</sup> (vacated)	TWA: 0.5 mg/m <sup>3</sup>
Ethylene glycol 107-21-1	TWA: 25 ppm (vapor fraction) STEL: 50 ppm (vapor fraction)	-	-

NIOSH REL/IDLH Recommended Exposure Limit/Immediately Dangerous to Life or Health

### Appropriate engineering controls

**Engineering Controls** Ensure adequate ventilation, especially in confined areas. And. Showers. Eyewash stations. Ventilation systems.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Skin and body protection** Wear suitable protective clothing. Wear protective butyl rubber gloves. Protective shoes or boots.

**Respiratory protection** Ensure adequate ventilation, especially in confined areas. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations** When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs. Wash contaminated clothing before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical state</b>	liquid	<b>Odor</b>	None
<b>Appearance</b>	Liquid	<b>Odor threshold</b>	No information available
<b>Color</b>	yellow brown		
<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>	
pH	7.42	solution (1 %)	
Melting point / freezing point	No information available		
Boiling point / boiling range	No information available		
Flash point	> 100 °C / > 212 °F	Seta Closed Cup	
Evaporation rate	No information available		
Flammability (solid, gas)	No information available		
Flammability Limit in Air			
Upper flammability limit:	No information available		
Lower flammability limit:	No information available		
Vapor pressure	~18 mmHg	@ 25 °C	
Vapor density	No information available		
Relative density	1.2563 g/mL		
Water solubility	dispersible		
Solubility in other solvents	No information available		
Partition coefficient	No information available		
Autoignition temperature	No information available		
Decomposition temperature	No information available		
Kinematic viscosity	> 100 mm <sup>2</sup> /s	@ 40 °C	
Dynamic viscosity	No information available		
Explosive properties	Not an explosive		
Oxidizing properties	Not applicable		

### Other Information

**Softening point** No information available

Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

## 10. STABILITY AND REACTIVITY

### Reactivity

No data available

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to avoid

Elevated Temperature. Storage near to reactive materials.

### Incompatible materials

Strong oxidizing agents.

### Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon oxides. Hydrogen chloride.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

Inhalation	May cause irritation of respiratory tract. Harmful by inhalation.
Eye contact	Corrosive to the eyes and may cause severe damage including blindness.
Skin contact	May cause irritation. May cause sensitization by skin contact.
Ingestion	Toxic if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Endothal-potassium 2164-07-0	= 38 mg/kg ( Rat )	> 1 g/kg ( Rat ) > 2000 mg/kg ( Rat )	= 1.85 mg/L ( Rat ) 4 h
Diquat dibromide 85-00-7	= 120 mg/kg ( Rat ) = 214 mg/kg ( Rat )	= 433 mg/kg ( Rat )	-
Ethylene glycol 107-21-1	= 4700 mg/kg ( Rat )	= 10600 mg/kg ( Rat ) = 9530 µL/kg ( Rabbit )	-

### Information on toxicological effects

Symptoms	May cause skin irritation. May cause redness and tearing of the eyes. May result in permanent damage including blindness. Coughing and/ or wheezing. May cause an allergic skin reaction.
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### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	May cause sensitization by skin contact.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT - single exposure	May cause respiratory irritation.
STOT - repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Chronic toxicity	May cause adverse liver effects.
Target Organ Effects	Central nervous system, Eyes, kidney, liver, Respiratory system, Skin.

Aspiration hazard Based on available data, the classification criteria are not met.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	93.28 mg/kg
ATEmix (dermal)	>2000 mg/kg
ATEmix (inhalation-dust/mist)	>0.52 mg/l

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Toxic to aquatic life with long lasting effects

This pesticide is toxic to mammals, fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Diquat dibromide 85-00-7	96-hr EC50 (Selenastrum capricornutum) = 0.011 mg/L	96-hr LC50 (Rainbow Trout) = 21 mg/L 96-hr LC50 (Mirror Carp) = 67 mg/L	48-hr EC50 (Daphnia magna) = 1.2 mg/L
Ethylene glycol 107-21-1	6500 - 13000: 96 h Pseudokirchneriella subcapitata mg/L EC50	41000: 96 h Oncorhynchus mykiss mg/L LC50 14 - 18: 96 h Oncorhynchus mykiss mL/L LC50 static 40000 - 60000: 96 h Pimephales promelas mg/L LC50 static 27540: 96 h Lepomis macrochirus mg/L LC50 static 40761: 96 h Oncorhynchus mykiss mg/L LC50 static 16000: 96 h Poecilia reticulata mg/L LC50 static	46300: 48 h Daphnia magna mg/L EC50

**Persistence and degradability**

Not readily biodegradable.

**Bioaccumulation**

Not likely to bioaccumulate.

Chemical Name	Partition coefficient
Diquat dibromide 85-00-7	-4.6
Ethylene glycol 107-21-1	-1.93

**Other adverse effects**

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Disposal of wastes**

Pesticide wastes may be acutely hazardous. Improper disposal is a violation of federal law. Disposal should be in accordance with applicable regional, national and local laws and regulations. Contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance on proper disposal of waste product.

**Contaminated packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations. Consult product label for additional information. Do not reuse container.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Endothal-potassium 2164-07-0	P088	-	-	-

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Endothal-potassium 2164-07-0	-	P088	-	-

## 14. TRANSPORT INFORMATION

### DOT

UN/ID no UN2902  
Proper shipping name Pesticides, liquid, toxic, n.o.s.  
Hazard Class 6.1  
Packing Group III  
Special Provisions IB3, T7, TP2, TP28  
Description UN2902, Pesticides, liquid, toxic, n.o.s. (Endothal-potassium), 6.1, III  
Emergency Response Guide Number 151

### TDG

UN/ID no UN2902  
Proper shipping name Pesticide, liquid, toxic, n.o.s.  
Hazard Class 6.1  
Packing Group III  
Description UN2902, Pesticide, liquid, toxic, n.o.s. (Endothal-potassium), 6.1, III

### IATA

UN/ID no UN2902  
Proper shipping name Pesticide, liquid, toxic, n.o.s.  
Hazard Class 6.1  
Packing Group III  
ERG Code 6L  
Special Provisions A3, A4  
Description UN2902, Pesticide, liquid, toxic, n.o.s. (Endothal-potassium), 6.1, III

### IMDG

UN/ID no UN2902  
Proper shipping name Pesticide, liquid, toxic, n.o.s.  
Hazard Class 6.1  
Packing Group III  
EmS-No F-A, S-A  
Special Provisions 61, 223, 274  
Description UN2902, Pesticide, liquid, toxic, n.o.s. (Endothal-potassium), 6.1, III

## 15. REGULATORY INFORMATION

### International Inventories

TSCA Complies  
DSL/NDL Complies  
EINECS/ELINCS Complies  
IECSC Complies  
KECL Complies  
PICCS Complies  
AICS Complies



**Legend:**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List  
EINECS/ELINCS - 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**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Ethylene glycol - 107-21-1	1.0

**SARA 311/312 Hazard Categories**

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Diquat dibromide 85-00-7	-	-	-	X

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Endothal-potassium 2164-07-0	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ
Diquat dibromide 85-00-7	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ
Ethylene glycol 107-21-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals

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

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Endothal-potassium 2164-07-0	X	X	X
Diquat dibromide 85-00-7	X	X	X
Ethylene glycol 107-21-1	X	X	X

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** 83529-311

**EPA Statement**

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**Difference between SDS and EPA Pesticide label**

DANGER: Corrosive. Causes irreversible eye damage. May be fatal if swallowed. Harmful if inhaled or absorbed through skin. DO NOT get in eyes, on skin, or on clothing. Avoid breathing vapors or spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Human flagging is prohibited.

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<b><u>NFPA</u></b>	Health hazards	3	Flammability	0	Instability	0	Physical and Chemical Properties	-
<b><u>HMIS</u></b>	Health hazards	3*	Flammability	0	Physical hazards	0	Personal protection	X
<i>Chronic Hazard Star Legend</i>								

\* = Chronic Health Hazard

**Issue Date** 18-May-2025

**Revision Date** 18-May-2025

**Revision Note**

No information available

**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**