

**Issue Date** 17-Apr-2021

**Revision Date** 17-Apr-2021

**Version** 1

## 1. IDENTIFICATION

**Product identifier**
**Product Name** Sharda Bromacil 40% + Diuron 40% DF ABN: Brahma 44

**Other means of identification**
**Product Code** 83529-141

**Synonyms** None

**Registration Number(s)** 83529-141

**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 4
Serious eye damage/eye irritation	Category 2B
Carcinogenicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2

**Label elements**
**Emergency Overview**
**Warning**
**Hazard statements**

Harmful if swallowed  
Causes eye irritation  
Suspected of causing cancer  
May cause damage to organs through prolonged or repeated exposure


**Appearance** dry, free flowing granules

**Physical state** Solid

**Odor** None

**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Do not breathe dust/fume/gas/mist/vapors/spray

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention  
 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 SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
 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**

May be harmful in contact with skin. Very toxic to aquatic life with long lasting effects. Very 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-%
Diuron	330-54-1	40.0
Bromacil	314-40-9	40.0
Other ingredients	Proprietary	20.0

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****General advice**

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.

**Eye contact**

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.

**Skin contact**

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.

**Inhalation**

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.

**Ingestion**

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.

**Self-protection of the first aider** 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**

**Symptoms** May cause redness and tearing of the eyes.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

## 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. Nitrogen oxides (NO<sub>x</sub>). 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. Avoid creating dust.

**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 dust cloud. Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Avoid creating dust. Do not dry sweep dust. Wet dust with water before sweeping or use a vacuum to collect dust. 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. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray.

**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
Diuron 330-54-1	TWA: 10 mg/m <sup>3</sup>	-	TWA: 10 mg/m <sup>3</sup>
Bromacil 314-40-9	TWA: 10 mg/m <sup>3</sup>	-	TWA: 1 ppm TWA: 10 mg/m <sup>3</sup>
Other ingredients	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust

### 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). Tight sealing safety 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

Physical state	Solid	Odor	None
Appearance	dry, free flowing granules	Odor threshold	No information available
Color	brown		

Property	Values	Remarks • Method
pH	5.81	solution (1 %)
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	Not applicable	
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	0 mmHg	@ 25 °C
Vapor density	No information available	
Relative density	0.573 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	No information available	
Dynamic viscosity	No information available	
Explosive properties	Not an explosive	
Oxidizing properties	Not applicable	

**Other Information**

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	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. Nitrogen oxides (NOx). Carbon oxides. Hydrogen chloride.

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

<b>Inhalation</b>	Based on available data, the classification criteria are not met.
<b>Eye contact</b>	Moderately irritating to the eyes.
<b>Skin contact</b>	Based on available data, the classification criteria are not met.
<b>Ingestion</b>	Harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Diuron 330-54-1	= 1017 mg/kg (Male Rat ) = 4990 mg/kg (Female Rat )	> 2000 mg/kg (Male Rat ) > 5 g/kg (Female Rat )	> 0.265 mg/L ( Rat )
Bromacil 314-40-9	= 691 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	> 4.2 mg/L ( Rat ) 4 h

**Information on toxicological effects****Symptoms** May cause redness and tearing of the eyes.**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Sensitization** Based on available data, the classification criteria are not met.**Germ cell mutagenicity** Based on available data, the classification criteria are not met.**Carcinogenicity** US EPA known/likely carcinogen (Diuron). This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Chemical Name	ACGIH	IARC	NTP	OSHA
Bromacil 314-40-9	A3	-	-	-

**ACGIH (American Conference of Governmental Industrial Hygienists)**

A3 - Animal Carcinogen

**IARC (International Agency for Research on Cancer)**

Group 3 - Not Classifiable as to Carcinogenicity in Humans

**Reproductive toxicity**  
**STOT - single exposure**  
**STOT - repeated exposure**  
**Chronic toxicity**

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

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

May cause damage to organs through prolonged or repeated exposure.

Avoid repeated exposure. May cause adverse liver effects. May cause adverse effects on the bone marrow and blood-forming system.

**Target Organ Effects**  
**Aspiration hazard**

Central nervous system, liver, Thyroid, Respiratory system, blood, Eyes, Skin.  
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) >580.00 mg/kg

ATEmix (dermal) >4,004.00 mg/kg

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Very toxic to aquatic life with long lasting effects

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Bromacil 314-40-9	-	180 - 192: 96 h Pimephales promelas mg/L LC50 flow-through 32: 96 h Lepomis macrochirus mg/L LC50 static 30 - 40: 96 h Oncorhynchus mykiss mg/L LC50 static	-
Diuron 330-54-1	0.022: 96 h Desmodesmus subspicatus mg/L EC50 0.1: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 0.0007: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 0.036: 72 h Desmodesmus subspicatus mg/L EC50 static	13.4 - 15: 96 h Pimephales promelas mg/L LC50 flow-through 13.4 - 15: 96 h Pimephales promelas mg/L LC50 static 2.3 - 3.3: 96 h Lepomis macrochirus mg/L LC50 static 2.9: 96 h Cyprinus carpio mg/L LC50 14.7: 96 h Oncorhynchus mykiss mg/L LC50 4: 96 h Lepomis macrochirus mg/L LC50 1.5 - 2.54: 96 h Oncorhynchus mykiss mg/L LC50 static	1.4: 48 h Daphnia magna mg/L EC50 6.3 - 13: 48 h Daphnia magna mg/L EC50 Static

**Persistence and degradability**

Not readily biodegradable.

**Bioaccumulation**

Not likely to bioaccumulate.

Chemical Name	Partition coefficient
Diuron 330-54-1	2.82
Bromacil 314-40-9	2.11

**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.

**14. TRANSPORT INFORMATION****DOT**

Not Regulated (Single Container < RQ)

This product is regulated by US DOT when shipped in single containers with a net weight of

250 lbs or greater with the following description: RQ; UN3077; Environmentally Hazardous Substance, Solid, NOS (Diuron); 9; III.

**TDG** Not regulated

**IATA**

**UN/ID no** UN3077  
**Proper shipping name** Environmentally hazardous substance, solid, n.o.s.  
**Hazard Class** 9  
**Packing Group** III  
**ERG Code** 9L  
**Special Provisions** A97, A158, A179, A197  
**Description** UN3077, Environmentally hazardous substance, solid, n.o.s. (Diuron), 9, III

**IMDG**

**UN/ID no** UN3077  
**Proper shipping name** Environmentally hazardous substance, solid, n.o.s.  
**Hazard Class** 9  
**Packing Group** III  
**EmS-No** F-A, S-F  
**Special Provisions** 274, 335, 966, 967  
**Description** UN3077, Environmentally hazardous substance, solid, n.o.s. (Diuron), 9, III; Marine Pollutant

## 15. REGULATORY INFORMATION

**International Inventories**

**TSCA** Complies  
**DSL/NDSL** 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/NDSL** - 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 %
Bromacil - 314-40-9	1.0
Diuron - 330-54-1	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
Diuron 330-54-1	100 lb	-	-	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)
Diuron 330-54-1	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
Diuron - 330-54-1	Carcinogen

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

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Bromacil 314-40-9	X	X	X
Diuron 330-54-1	X	X	X
Other ingredients	-	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number 83529-141

**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**

CAUTION: Harmful if swallowed or if absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

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

<b>NFPA</b>	Health hazards 2	Flammability 1	Instability 0	Physical and Chemical Properties -
<b>HMIS</b>	Health hazards 2*	Flammability 1	Physical hazards 0	Personal protection X
<i>Chronic Hazard Star Legend</i>	* = Chronic Health Hazard			

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**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