

Issue Date 11-Jun-2022

Revision Date 11-Jun-2022

Version 1

1. IDENTIFICATION

Product identifier

Product Name Sharda 2,4-D 20.9% + Picloram 5.4% SL ABN: Moon

Other means of identification

Product Code 83529-190

Synonyms None

Registration Number(s) 83529-190

Recommended use of the chemical and restrictions on use

Recommended Use Herbicide

Uses advised against Consumer use

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 |
| Skin sensitization | Category 1B |
| Flammable liquids | Category 4 |

Label elements

Emergency Overview

Warning

Hazard statements

Harmful if swallowed
Causes eye irritation
May cause an allergic skin reaction
Combustible liquid



Appearance clear liquid

Physical state liquid

Odor Pungent

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection
 Do not eat, drink or smoke when using this product
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Contaminated work clothing should not be allowed out of the workplace
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking

Precautionary Statements - Response

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 ON SKIN: Wash with plenty of soap and water
 If skin irritation or rash occurs: Get medical advice/attention
 Wash contaminated clothing before reuse
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth
 In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool

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.

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 |
| 2,4-D Triisopropanolamine salt | 18584-79-7 | 20.9 |
| Ethylene glycol * | 107-21-1 | 7 - 13 |
| Isopropyl alcohol * | 67-63-0 | 5 - 10 |
| Picloram triisopropanolamine salt | 6753-47-5 | 5.4 |

*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****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. |
| <u>Most important symptoms and effects, both acute and delayed</u> | |
| Symptoms | May cause redness and tearing of the eyes. Repeated contact may cause allergic reactions in very susceptible persons. |
| <u>Indication of any immediate medical attention and special treatment needed</u> | |
| Note to physicians | Contains ethylene glycol. Treat symptomatically. |

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Dry chemical, CO₂, 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_x). 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 |
|--|---|--|---|
| Ethylene glycol 107-21-1 | TWA: 25 ppm (vapor fraction) STEL: 50 ppm (vapor fraction) | - | - |
| Isopropyl alcohol 67-63-0 | STEL: 400 ppm TWA: 200 ppm | TWA: 400 ppm TWA: 980 mg/m ³ | IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³ |
| Picloram triisopropanolamine salt 6753-47-5 | TWA: 10 mg/m ³ | TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction | - |

NIOSH IDLH 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**Physical state**

liquid

Appearance

clear liquid

Color

light yellow

Odor

Pungent

Odor threshold

No information available

Property**Values****Remarks • Method****pH**

6 - 7

solution (1 %)

Melting point / freezing point

No information available

Boiling point / boiling range

No information available

Flash point

85 °C / 185 °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 | @ 20 °C |
| Vapor density | No information available | |
| Relative density | 1.0784 g/mL | |
| Water solubility | Soluble in water | |
| 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

| | |
|-------------------------|--------------------------|
| 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. Nitrogen oxides (NOx). Hydrogen chloride.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

| | |
|---------------------|---|
| Inhalation | Based on available data, the classification criteria are not met. |
| Eye contact | Irritating to eyes. |
| Skin contact | Repeated or prolonged contact may cause allergic reactions in very susceptible persons. |
| Ingestion | Harmful if swallowed. |

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|--|----------------------|--|---------------------------------------|
| Other ingredients | > 90 mL/kg (Rat) | - | - |
| Ethylene glycol 107-21-1 | = 4700 mg/kg (Rat) | = 10600 mg/kg (Rat) = 9530 µL/kg (Rabbit) | - |
| Isopropyl alcohol 67-63-0 | = 1870 mg/kg (Rat) | = 4059 mg/kg (Rabbit) | = 72600 mg/m ³ (Rat) 4 h |
| Picloram triisopropanolamine salt 6753-47-5 | = 8200 mg/kg (Rat) | > 4000 mg/kg (Rabbit) | - |

Information on toxicological effects**Symptoms**

May cause redness and tearing of the eyes. Repeated or prolonged contact may cause allergic reactions in very susceptible persons.

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

Repeated or prolonged contact may cause allergic reactions in very susceptible persons.

Germ cell mutagenicity

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

Carcinogenicity

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

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|---|-------|---------|-----|------|
| Isopropyl alcohol 67-63-0 | - | Group 3 | - | X |
| Picloram triisopropanolamine salt 6753-47-5 | - | Group 3 | - | - |

IARC (International Agency for Research on Cancer)

Group 3 - Not Classifiable as to Carcinogenicity in Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity

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

STOT - single exposure

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

STOT - repeated exposure

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

Chronic toxicity

May cause adverse liver effects.

Target Organ Effects

Central nervous system, Eyes, Respiratory system, Skin, kidney, liver.

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) >1,511.00 mg/kg

ATEmix (dermal) >32,539.00 mg/kg

ATEmix (inhalation-dust/mist) >1,037.10 mg/l

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Toxic to aquatic life with long lasting effects

This product is toxic to 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. Do not contaminate water when disposing of equipment washwaters.

| Chemical Name | Algae/aquatic plants | Fish | Crustacea |
|--|--|---|---|
| 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 |
| Isopropyl alcohol 67-63-0 | 1000: 96 h Desmodemus subspicatus mg/L EC50 1000: 72 h Desmodemus subspicatus mg/L EC50 | 11130: 96 h Pimephales promelas mg/L LC50 static 9640: 96 h Pimephales promelas mg/L LC50 flow-through 1400000: 96 h Lepomis macrochirus µg/L LC50 | 13299: 48 h Daphnia magna mg/L EC50 |
| Picloram triisopropanolamine salt 6753-47-5 | - | 55.3: 96 h Pimephales promelas mg/L LC50 static 4.0: 96 h Oncorhynchus mykiss mg/L LC50 | 59 - 97: 48 h Daphnia magna mg/L EC50 Static |

Persistence and degradability

Not readily biodegradable.

Bioaccumulation

Not likely to bioaccumulate.

| Chemical Name | Partition coefficient |
|------------------------------|-----------------------|
| Ethylene glycol 107-21-1 | -1.93 |
| Isopropyl alcohol 67-63-0 | 0.05 |

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**

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 greater than 478 lbs. but less than or equal to 1070 lbs. (119 gallons or less) with the following description: RQ; UN3082; Environmentally Hazardous Substance, Liquid, NOS (2,4-D triisopropanolamine salt); 9; III

For bulk containers (>119 gallons or 450 L), this product is regulated as NA1993; Combustible liquid, NOS (Isopropyl alcohol); Combustible liquid; III; RQ (2,4-D triisopropanolamine salt)

TDG

Not regulated

IATA

| | |
|----------------------|--|
| UN/ID no | UN3082 |
| Proper shipping name | Environmentally hazardous substance, liquid, n.o.s. |
| Hazard Class | 9 |
| Packing Group | III |
| ERG Code | 9L |
| Special Provisions | A97, A158, A197 |
| Description | UN3082, Environmentally hazardous substance, liquid, n.o.s. (2,4-D triisopropanolamine salt), 9, III |

IMDG

| | |
|----------------------|--|
| UN/ID no | UN3082 |
| Proper shipping name | Environmentally hazardous substance, liquid, n.o.s. |
| Hazard Class | 9 |
| Packing Group | III |
| EmS-No | F-A, S-F |
| Special Provisions | 274, 335, 969 |
| Description | UN3082, Environmentally hazardous substance, liquid, n.o.s. (2,4-D triisopropanolamine salt), 9, III; Marine pollutant |

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 |
| Isopropyl alcohol - 67-63-0 | 1.0 |
| Picloram triisopropanolamine salt - 6753-47-5 | 1.0 |

SARA 311/312 Hazard Categories

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

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

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) |
|--|--------------------------|----------------|--|
| 2,4-D Triisopropanolamine salt 18584-79-7 | 100 lb | - | RQ 100 lb final RQ RQ 45.4 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 |
|--|------------|---------------|--------------|
| Other ingredients | - | - | X |
| Ethylene glycol 107-21-1 | X | X | X |
| Isopropyl alcohol 67-63-0 | X | X | X |
| Picloram triisopropanolamine salt 6753-47-5 | X | X | X |

U.S. EPA Label Information

EPA Pesticide Registration Number 83529-190

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: Causes moderate eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing. Prolonged or frequent repeated skin contact may cause allergic reactions in some individuals. 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

| | | | | |
|-------------|-------------------------|-----------------------|---------------------------|---|
| NFPA | Health hazards 2 | Flammability 2 | Instability 0 | Physical and Chemical Properties - |
| HMIS | Health hazards 2 | Flammability 2 | Physical hazards 0 | Personal protection X |

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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

11Jun2022