



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs  
Registration Division (7505P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

83529-78

Date of Issuance:

7/26/17

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

Sharda Lactofen 24% EC

Name and Address of Registrant (include ZIP Code):

Sharda USA LLC  
c/o Wagner Regulatory Associates, Inc.  
P.O. Box 640  
Hockessin, DE 19707

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Erik Kraft, Product Manager 24  
Fungicide and Herbicide Branch,  
Registration Division (7505P)

Date:

7/26/17

2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, “EPA Reg. No. 83529-78.”
3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 03/31/2017

If you have any questions, please contact Aswathy Balan by phone at 703-347-0510, or via email at [balan.aswathy@epa.gov](mailto:balan.aswathy@epa.gov).

GROUP 14 HERBICIDE

# Sharda Lactofen 24% EC

<b>ACTIVE INGREDIENT:</b>	<b>% By Weight</b>
Lactofen: 2-ethoxy-1-methyl-2-oxoethyl-5-[2-chloro-4-(trifluoromethyl)-phenoxy]-2-nitrobenzoate.....	24.0%
<b>OTHER INGREDIENTS:</b> .....	76.0%
<b>TOTAL:</b> .....	100.0%
Contains petroleum distillates.	
Contains 2 lbs. active ingredient per gallon.	

## KEEP OUT OF REACH OF CHILDREN DANGER/PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <li>Hold eyes open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after first 5 minutes, then continue rinsing eyes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"> <li>Immediately call a poison control center or doctor.</li> <li>Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>Do not give any liquid to the person.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call your poison control center at <b>1-800-222-1222</b> .	
<b>Note to Physician:</b> Ingestion of this product or subsequent vomiting can result in aspiration of light hydrocarbon liquid, which can cause pneumonitis.	

[Optional referral statements when booklets and container labels are used:

See label booklet for complete Precautionary Statements, Directions For Use, and Storage and Disposal.

See label booklet for additional Precautionary Statements Directions For Use, and Storage and Disposal.

See label booklet for complete Directions For Use.]

**Do not apply this product through any type of irrigation system.**

EPA Reg. No.: 83529-XX

EPA Est. No.: \_\_\_\_\_

Net Contents: \_\_\_\_\_

Manufactured for:

**Sharda USA LLC** 

7217 Lancaster Pike, Suite A  
Hockessin, Delaware 19707

**ACCEPTED**

07/26/2017

Under the Federal Insecticide, Fungicide  
and Rodenticide Act as amended, for the  
pesticide registered under

EPA Reg. No. 83529-78

**PRECAUTIONARY STATEMENTS**

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### DANGER

Corrosive. Causes skin burns and irreversible eye damage. Harmful if swallowed, inhaled or absorbed through skin. Do not get in eyes or on skin or clothing. Avoid breathing vapor or spray mist. This product contains lactofen, which has been determined to cause tumors in laboratory animals (mouse, rat). Risks can be reduced by closely following use directions and precautions, and by wearing the protective clothing specified elsewhere on this label.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### Applicators and other handlers must wear:

- Coveralls worn over long-sleeved shirt and long pants
- Chemical-resistant gloves, made out of barrier laminate or Viton
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### USER SAFETY RECOMMENDATIONS

#### Users should:

- Wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of waste. Do not apply when weather conditions favor drift from target area.

### GROUND WATER ADVISORY

Lactofen has properties and characteristics associated with chemicals detected in groundwater. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Acifluorfen, a degradate of this chemical, is known to leach through soil into groundwater under certain conditions as a result of labeled use.

### PHYSICAL OR CHEMICAL HAZARDS

**Combustible.** Do not use or store near heat or open flame.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**IMPORTANT:** USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.**

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or Viton
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure

## PRODUCT INFORMATION

**Sharda Lactofen 24% EC** is a selective, broad spectrum herbicide for pre-emergence and post-emergence control of susceptible broadleaf weeds. **Sharda Lactofen 24% EC** is formulated as an emulsifiable concentrate containing 2 lbs. of active ingredient per gallon. In the Midwest, post-emergence application of **Sharda Lactofen 24% EC** to soybeans (at or just before 1st bloom) has resulted in suppression of the soybean disease white mold caused by *Sclerotinia sclerotiorum*.

**Sharda Lactofen 24% EC** works primarily through contact action. Thorough coverage of young, actively growing weeds is essential for maximum weed control. The use of a spray adjuvant is typically required. Refer to the label section on **Adjuvants and Additives** for specific recommendations.

When **Sharda Lactofen 24% EC** is applied post-emergence, a portion of the spray solution may contact the soil surface. If soil moisture conditions are favorable for **pre-emergence activity** following the application with rates of 10 fl. oz./A or greater, suppressed germination of small-seeded broadleaf weeds, such as nightshade and pigweed species (including waterhemp and Palmer amaranth) may be expected for a 2 week period. The presence of excessive crop or weed foliage at the time of application will reduce the amount of herbicide spray contacting the soil surface and will reduce the level of soil activity.

After post-emergence application of **Sharda Lactofen 24% EC**, a **temporary crop response** should be expected. Open leaves at the time of application will show some burn, bronzing and speckling. Unopened leaves which have emerged at the time of application may appear cupped at the tip and/or crinkled along the edges of the leaf. Labeled crops should quickly outgrow all initial herbicide effects. When **Sharda Lactofen 24% EC** is used as directed **yields will not be adversely affected**.

### Use Restrictions:

- Do not make more than 2 applications per acre per year.
- Do not apply this product through any type of irrigation rain-system.

**Rainfastness:** **Sharda Lactofen 24% EC** is rainfast 30 minutes after application. Do not apply **Sharda Lactofen 24% EC** if rain is expected within 30 minutes of application or efficacy may be reduced.

### Application and Cultivation

Do not cultivate prior to or during application. Do not generate excessive dust while spraying. Excessively dusty conditions may interfere with the coverage of the weed leaf surface by the spray solution. A timely cultivation approximately one week after application will assist in weed control.

### Sequential Applications

A sequential application of **Sharda Lactofen 24% EC** can be made after a minimum of 14 days have passed following the first application.

### Crop Failure

If the crop treated with **Sharda Lactofen 24% EC** is lost due to a catastrophe, such as hail or other forms of inclement weather, refer to crop Rotational Restrictions below.

### Crop Rotation

**Sharda Lactofen 24% EC** has no rotational restrictions.

## RESISTANCE

Lactofen is a chemical classified as a Group 14 mode of action. While the development of resistance is well understood, it is not easily predicted. Therefore, herbicides must be used in conjunction with resistance management strategies in the area. Consult the local or State agricultural advisors for details. If weed resistance develops in the area, this product used alone may not continue to provide sufficient levels of weed control. If the reduced levels of control cannot be attributed to improper application timing, unfavorable weather conditions or abnormally high weed pressure, a resistant strain may have developed.

To reduce the potential for weed resistance, use this product in a rotation program with other classes of chemistry and modes of action. Always apply this product at the specified labelled rates and in accordance with the use directions. Do not use less than specified label rates alone or in tank mixtures. Do not use reduced rates of the tank mix partner. For optimum performance, scout fields carefully and begin applications when weeds are smaller rather than larger. If resistance is suspected, contact the local or State agricultural advisors.

## INTEGRATED PEST MANAGEMENT

Integrate Sharda Lactofen 24% EC into an overall weed pest management strategy whenever the use of an herbicide is required. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding) should be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

### ENVIRONMENTAL CONDITIONS AND BIOLOGICAL PERFORMANCE

Apply **Sharda Lactofen 24% EC** to actively growing weeds within the growth stages indicated in this label for best results. **Sharda Lactofen 24% EC** is most effective when applied at temperatures above 70°F during sunny conditions.

Herbicide effectiveness will be reduced if **Sharda Lactofen 24% EC** is applied under conditions that do not promote active weed growth. Do not apply **Sharda Lactofen 24% EC** when the crop or weeds are under stress due to drought, excessive water, extremes in temperature, disease or low humidity. Weeds under stress tend to become less susceptible to herbicidal action.

### SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator and grower. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and grower are responsible for considering all these factors when making decisions.

#### Broadcast Application

**Do Not Use the Following Delivery Systems to Apply Sharda Lactofen 24% EC:**

- Flood nozzles
- Control Droplet Application (CDA)
- Flat fan nozzles larger than 8006
- Spray rigs which utilize wheel driven pumps

Apply **Sharda Lactofen 24% EC** and **Sharda Lactofen 24% EC** tank mixes with ground equipment using standard commercial sprayers equipped with flat fan (including split-nozzle systems which spray in opposite directions) or hollow cone nozzles designed to deliver the desired spray pressure and spray volume. Thorough weed coverage is required for optimum control. Center spray nozzles at a maximum of 20 inch spacing to provide adequate coverage.

**Carrier Volume and Spray Pressure:** Use **Sharda Lactofen 24% EC** on a broadcast basis in a minimum of **10 gallons of water per acre** and a minimum spray pressure of **40 PSI measured at the boom**. **Sharda Lactofen 24% EC** is a contact herbicide which requires coverage for optimal control. Sharda USA LLC recommends 20 gallons of water per acre when targeting weeds which are at the maximum labeled growth stage at application.

#### Aerial Application

Spray drift away from the site of application may cause damage to non-target vegetation. To minimize drift, apply the largest droplet size consistent with uniform coverage and satisfactory weed control. To obtain satisfactory application and avoid drift, the following directions must be observed:

- Do not apply during low-level inversion conditions (including fog), when winds are gusty or under other conditions that favor drift. Do not spray when wind velocity is less than 2 mph or more than 10 mph.
- Do not apply this product by air within 200 ft. of non-target plants including non-target crops.
- Do not apply this product by air within 200 ft. of emerged cotton crops.
- Do not apply this product by air within 200 ft. of streams, wetlands, marshes, ponds, lakes and reservoirs.

**Carrier Volume and Spray Pressure:** When used as part of a burndown weed control program, apply **Sharda Lactofen 24% EC** in 7 to 10 gals. of water per acre. Application at less than 7 gals. per acre may provide inadequate control. When used for pre-emergence/weed control, apply **Sharda Lactofen 24% EC** in 5 to 10 gals. of water per acre. The higher gallonage applications generally afford more consistent weed control. Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

**Nozzle Selection and Orientation:** Formation of very small drops may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray pressure. Use nozzles that produce flat or hollow cone spray patterns. Use non-drip type nozzles, such as diaphragm type nozzles, to avoid unwanted discharge of spray solution. The nozzles must be directed toward the rear of the aircraft, at an angle between 0 and 15° downward. Do not place nozzles on the outer 25% of the wings or rotors.

**Adjuvants and Drift Control Additives:** Drift control additives are not recommended with **Sharda Lactofen 24% EC**.

**Swath Adjustment:** When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up-and-downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

**Wind:** Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application must be avoided below 2 mph due to variable wind directions and high inversion potential. **Note:** Local terrain can influence wind patterns. Every applicator must be familiar with local wind patterns and how they affect spray drift.

**Temperature and Humidity:** When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.



**Temperature Inversions:** Because drift potential is high, do not apply during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

**Sensitive Areas:** This product may only be applied when the potential for drift to adjacent sensitive areas (e.g., non-target crops, bodies of water, residential areas, known habitat for threatened or endangered species) is minimal (e.g., when wind is blowing away from the sensitive areas). Do not apply during low-level inversion conditions, when winds are gusty or under any other condition that favors drift. Do not spray when drift is possible or when wind velocity is less than 2 or more than 10 mph. Drift may cause damage to any vegetation contacted to which application is not intended. To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained. Do not apply this product within 200 feet of non-target plants including non-target crops. Do not apply this product within 200 feet of streams, wetlands, marshes, ponds, lakes and reservoirs.

### TANK MIXING INSTRUCTIONS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Application equipment should be clean and in good repair. Space nozzles uniformly on boom and frequently check for accuracy. Ground speed should not exceed 10 mph to provide proper spray coverage. Boom height, ground speed, and pressure recommendations, should not exceed those recommended by the spray nozzle manufacturer for the type and size of nozzle being used. Improper use of the selected spray nozzle will adversely affect the spray pattern, prevent proper coverage of weed leaf surface, and reduce weed control. Refer to the manufacturer's spray chart for nozzle selection and operating information. Give special attention to preparing and operating the spray equipment to assure proper coverage of weed foliage.

### Adjuvants and Additives

For control of emerged weeds, the addition of an adjuvant to **Sharda Lactofen 24% EC** is required. Sharda USA, LLC recommends using a crop oil concentrate (COC), including methylated seed oils (MSO), containing at least 15% emulsifier or non-ionic surfactant containing at least 80% surfactant. Nitrogen (28, 30 or 32%) or ammonium sulfate, in combination with COC or non-ionic surfactant, may enhance weed control. Mixing and compatibility qualities should be verified by a jar test.

### Compatibility Testing

Perform a jar test before mixing commercial quantities of **Sharda Lactofen 24% EC**, when using **Sharda Lactofen 24% EC** for the first time, when using new adjuvants, or when a new water source is being used.

1. Add 1 pt. of the water to a quart jar. The water should be from the same source and temperature as will be used in the spray tank mixing operation.
2. Add 2 mL (0.4 tsp.) of **Sharda Lactofen 24% EC** to the quart jar, gently mix until product dissipates.
3. Add 6 mL (1 tsp.) of the crop oil concentrate or methylated seed oil to the quart jar, gently mix. If a non-ionic surfactant is being used in a tank mix, add 2.5 ml (0.5 tsp.) of the non-ionic surfactant in place of the oil.
4. If nitrogen is being used, add 16 mL (1 tbsp. or 0.5 oz.) of the 28 to 32% nitrogen source to the quart jar. If ammonium sulfate (AMS) is being used, add 19 gm. (0.04 lb.) AMS to the quart jar in place of the 28 to 32% nitrogen. Add ammonium sulfate to the jar before the **Sharda Lactofen 24% EC** in step 2.
5. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
6. An ideal tank mix combination will be uniform and free of suspended particles. If any of the following conditions are observed the choice of adjuvant should be questioned:
  - a) Layer of oil or globules on the mixture's surface.
  - b) Flocculation: Fine particles in suspension or as a layer on the bottom of the jar.
  - c) Clabbering: Thickening texture (coagulated) like gelatin.

- **Crop Oil Concentrate:** Crop oil concentrate is the preferred adjuvant with **Sharda Lactofen 24% EC** for weed control over a wide spectrum of application conditions. Although crops quickly outgrow the initial herbicide effects, higher levels of crop response are generally observed with the use of a crop oil concentrate. . At the time of application, the rate of crop oil concentrate will depend on weed species, weed size, and the environmental conditions prior to the application. If environmental conditions are favorable and weeds are actively growing, Sharda USA, LLC recommends using the low rate crop oil concentrate. When weeds are under environmental stress such as low temperature, low humidity or low soil moisture, use the higher rate.

- **Non-Ionic Surfactant (NIS):** A NIS may be used in place of a crop oil concentrate when weeds are actively growing and under optimal growing conditions.

**Drift Control Additives**

Drift control additives are not recommended with **Sharda Lactofen 24% EC**.

Refer to crop specific directions for adjuvant recommendations.

Adjuvant Recommendations			
Adjuvant	Percent Relative Humidity		
	>80% (High)	60 - 80% (Medium)	<60% (Low)
Crop Oil Concentrate (COC) / Methylated Seed Oil (MSO)	1 pt./Acre	1.5 pts./Acre	2 pts./Acre
<b>-OR-</b>			
Non-Ionic Surfactant (NIS)	0.25% v/v	Not Recommended	Not Recommended
A nitrogen source, such as ammonium sulfate (2.5 lbs./A) or 28% (1 qt./A) may be added to enhance weed control. v/v is volume NIS/volume of the tank solution.			

**Mixing Instructions**

1. Fill spray tank with clean water  $\frac{1}{3}$  to  $\frac{1}{2}$  of desired level.
2. While agitating, add the specified amount of **Sharda Lactofen 24% EC**. Agitation should create a rippling or rolling action on the water surface. If tank mixing **Sharda Lactofen 24% EC** with other labeled pesticides, add water soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.
3. Add any required adjuvants.
4. Add any required nitrogen source, unless ammonium sulfate (AMS) is being used. If AMS is being used as the nitrogen source, it should be added after water soluble bags and before dry pesticides.
5. Fill spray tank to desired level with water. Agitation should continue until spray solution has been applied.
6. Mix only the amount of spray solution that can be applied the day of mixing. **Sharda Lactofen 24% EC** will remain active in the spray solution for 12 hours.

**SOYBEANS - DIRECTIONS FOR USE**

Apply **Sharda Lactofen 24% EC** pre-plant, pre-emergence and/or post-emergence.

**Restrictions - Soybeans:**

- Do not exceed a total of 25 fl. oz. (0.4 lb. a.i.) per acre per year.
- Do not apply within 45 days of harvest or after growth stage R6 (full seed).
- **New York State Only:** Apply **Sharda Lactofen 24% EC** only as a post-emergence herbicide once per year, at a maximum yearly application rate not to exceed 12.5 fl. oz. (0.2 lb. a.i.) per acre, and not later than 90 days before harvest.
- Do not graze animals on green forage or stubble.
- Do not feed treated soybean silage (ensiled soybeans) to cattle. Do not utilize hay or straw for animal feed or bedding.

**Application Timing**

- **Pre-Plant Applications:** **Sharda Lactofen 24% EC** may be applied as part of a burndown program to control emerged weeds listed in the below "**Application Rates and Weeds Controlled by Post-Emergence Activity of Sharda Lactofen 24% EC**" table, prior to planting soybeans. **Sharda Lactofen 24% EC** will control the below weeds if they are within the maximum leaf number and the maximum height.
- **Post-Emergence Applications:** **Sharda Lactofen 24% EC** will control the weeds listed in the below "**Application Rates and Weeds Controlled by Post-Emergence Activity of Sharda Lactofen 24% EC**" table, if they are within the maximum leaf number and the maximum height. For best results, **Sharda Lactofen 24% EC** and **Sharda Lactofen 24% EC** tank mixes should be applied to actively growing weeds. Use of a crop oil concentrate or a non-ionic surfactant is required. Refer to the label section on **Adjuvants and Additives** for specific recommendation.



Application Rates and Weeds Controlled by Post-Emergence Activity of Sharda Lactofen 24% EC						
Weeds Controlled	Sharda Lactofen 24% EC Application Rates for Weed Growth Stages (Fl. Oz./Acre)					
	8.0		10.0		12.5	
	Maximum Leaf Number	Maximum Height (Inches)	Maximum Leaf Number	Maximum Height (Inches)	Maximum Leaf Number	Maximum Height (Inches)
Balloonvine	—	—	—	—	4	4
Beggarticks, Devils	—	—	—	—	6	4
Beggarweed, Florida	—	—	—	—	2	4
Bristly Starbur	—	—	—	—	4	4
Buffalobur	—	—	—	—	4	4
Burcucumber	—	—	—	—	4	4
Carpetweed	—	—	—	—	8" dia.	8" dia.
Cocklebur, Common	4	3	5	4	6	4
Copperleaf						
Hophornbeam	—	—	—	—	6	4
Virginia	—	—	—	—	4	4
Croton						
Tropic	—	—	—	—	4	4
Woolly	—	—	—	—	4	4
Devil's Claw	—	—	—	—	4	4
Eclipta	—	—	—	—	6	4
Galinsoga, Hairy	—	—	—	—	4	4
Groundcherry						
Cutleaf	—	—	—	—	6	4
Lanceleaf	—	—	—	—	6	—
Hemp Sesbania	—	—	—	—	6	4
Jimsonweed	4	3	4	4	4	4
Kochia	—	—	6	2	6	2
Mallow, Venice	—	—	—	—	4	4
Morningglories						
Cypressvine	—	—	—	—	4	3
Entireleaf*	—	—	—	—	4	3
Ivyleaf*	—	—	—	—	4	3
Palmleaf*	—	—	—	—	4	3
Pitted*	—	—	—	—	4	3
Purple Moonflower*	—	—	—	—	4	3
Smallflower*	—	—	—	—	4	3
Tall*	—	—	—	—	4	3
Mustard, Wild	—	—	—	—	6	4
Nightshades						
Black	4	4	5	4	6	5
Eastern Black	—	—	—	—	6	5
Hairy	—	—	—	—	4	5
Pigweeds						
Palmer Amaranth*	—	—	4	2	6	3
Prostrate	—	—	—	—	6	4
Redroot	6	3	6	4	6	4
Smooth	6	3	6	4	6	4
Spiny Amaranth	—	—	—	—	6	4
Poinsettia, Wild	—	—	—	—	4	4
Poorjoe	—	—	—	—	6	3
Prickly Sida (Teaweed)	—	—	—	—	4	3
Puncturevine	—	—	—	—	1.5" dia.	1.5" dia.
Purslane, Common	—	—	—	—	8" dia.	8" dia.
Pusley, Florida	—	—	—	—	6	4
Ragweed						
Common	—	—	4	2	6	4
Giant	—	—	—	—	4	2
Sage, Lanceleaf	—	—	—	—	4	4
Showy Croton	—	—	—	—	4	4
Smellmelon	—	—	—	—	6	4
Spurge						
Prostrate	—	—	—	—	1.5" dia.	1.5" dia.
Spotted	—	—	—	—	4	4
Toothed	—	—	—	—	4	4
Sunflower, Common*	—	—	—	—	2	4

Texasweed	—	—	—	—	4	4
Waterhemp*						
Common	—	—	4	2	6	3
Tall	—	—	4	2	6	3
Witchweed	—	—	—	—	6 - 8" & Prior to bloom	

\*Crop oil concentrate (COC) is required for control. The addition of liquid nitrogen (28, 30 or 32%) or ammonium sulfate in combination with COC may enhance weed control.

<b>Application Rates and Weeds Suppressed by Post-Emergence Activity of Sharda Lactofen 24% EC</b>	
<b>Weeds Suppressed</b>	<b>Sharda Lactofen 24% EC Application Rates for Weed Growth Stages (Fl. Oz./Acre)</b>
	<b>12.5</b>
	<b>Maximum Leaf Number</b>
Anoda, Spurred	2
Coffee Senna*	2
Milkweed	—
Climbing	6
Common	6
Morningglory, Bigroot (Wild Sweet Potato)	6
Redvine	6
Smartweed	—
Pennsylvania	4
Swamp	6
Thistle, Canada	6
Trumpet creeper	6
Velvetleaf*	4

\*Crop oil concentrate (COC) is required for suppression. The addition of liquid nitrogen (28, 30 or 32%) or ammonium sulfate in combination with COC may enhance weed control.

If any of the weeds listed in the above “**Application Rates and Weeds Controlled by Post-Emergence Activity of Sharda Lactofen 24% EC**” table have been previously treated with a post-emergence herbicide, the efficacy of **Sharda Lactofen 24% EC** may be reduced because those weeds may be under a herbicide stress.

#### Tank Mix Partners - Pre-Plant/Pre-Emergence Applications - Soybean

**Sharda Lactofen 24% EC** may be tank mixed with the following soybean herbicides:

2,4-D	FirstRate®	Outlook®	Roundup® WeatherMAX
2,4-DB	fluazifop (Fusilade® DX)	Pursuit®	Scepter®
Basagran®	Gangster®	quizalofop-p-ethyl (Assure® II)	Select® Max
Classic®	glyphosate	Raptor®	Valor®
Dual® II Magnum	Harmony® SG	Resource®	Valor® XLT
Fierce®	IntRro®	Roundup® PowerMAX	Warrant®

#### Pre-Emergence

**Sharda Lactofen 24% EC** may be applied as a pre-emergence soil applied herbicide for control of annual broadleaf weeds in soybeans. Pre-emergence applications of **Sharda Lactofen 24% EC** will provide approximately 2-weeks of residual control of the weeds listed in the below table.

**Restriction:** Do not apply more than 19 fl. oz./A (0.3 lb. a.i.) pre-emergence per acre per year.

<b>Application Rates and Weeds Controlled by Pre-Emergence Activity of Sharda Lactofen 24% EC</b>	
<b>Weeds Controlled</b>	<b>Sharda Lactofen 24% EC Application Rates (Fl. Oz./Acre)</b>
	Nightshades
Black	
Eastern Black	
Pigweeds	
Redroot	
Smooth	15.0 - 19.0
Copperleaf	
Hophornbeam	
Virginia	
Lambsquarters, Common	
Nightshades	
Black	
Eastern Black	
Pigweeds	
Redroot	
Smooth	

Ragweed, Common
Waterhemp
Common
Tall

**Tank Mix Partners - Post-Emergence Applications - Soybean**

**Sharda Lactofen 24% EC** may be tank mixed with the following soybean herbicides:

2,4-DB Basagran® Classic® Dual® II Magnum FirstRate®	fluazifop (Fusilade® DX) glyphosate Harmony® SG IntRRo® Outlook®	Pursuit® quizalofop-p- ethyl (Assure® II) Raptor® Resource® Roundup® PowerMAX	Roundup® WeatherMAX Scepter® Select® Max Warrant®
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If **Sharda Lactofen 24% EC** is applied under suboptimal growing conditions, herbicidal effectiveness will be reduced. Poor growing conditions include drought, excessive water, extremes in temperatures, previous post-emergence herbicide treatments, and low humidity. Weeds under stress tend to become less susceptible to herbicidal action.

**Do not** cultivate prior to or during application. Do not generate excessive dust while spraying. Excessively dusty conditions may interfere with the coverage of the weed leaf surface by the spray solution. A timely cultivation approximately one week after application will assist in weed control.

**Disease Suppression**

A post-emergence application of **Sharda Lactofen 24% EC** to soybeans can suppress white mold caused by *Sclerotinia sclerotiorum* as well as Sudden Death Syndrome caused by *Fusarium virguliforme*. Apply **Sharda Lactofen 24% EC** prior to infection and before soybeans are past R2 (full bloom).

Disease Suppression by Sharda Lactofen 24% EC			
Disease	Soybean Growth-Stage	Rate (Fl. Oz./Acre)	Adjuvant Recommendation
Sudden Death Syndrome ( <i>Fusarium virguliforme</i> ) White Mold ( <i>Sclerotinia Stem Rot</i> )	Application of <b>Sharda Lactofen 24% EC</b> must be made at, or just before, R2 (full bloom).	6.0 - 12.5	Crop Oil Concentrate -or- Methylated Seed Oil 1.0 pt./A -or- Non-Ionic Surfactant 0.25% v/v
<b>NOTE:</b> It has been shown that the effects of <b>Sharda Lactofen 24% EC</b> on white mold is not a fungicidal response but one that may involve Systemic Acquired Resistance (SAR).			

**COTTON - DIRECTIONS FOR USE**

**Sharda Lactofen 24% EC** may be applied as a post-directed or layby application for post-emergence weed control.

**Restrictions - Cotton:**

- Do not apply more than 12.5 fl. oz./A (0.20 lb. a.i./A) of **Sharda Lactofen 24% EC** per application.
- Do not exceed a combined rate of 25 fl. oz./A (0.40 lb. a.i./A) of **Sharda Lactofen 24% EC** per year.
- Do not make a sequential application of **Sharda Lactofen 24% EC** within 14 days of the first application.
- Do not make more than 2 **Sharda Lactofen 24% EC** applications per year.
- Do not apply **Sharda Lactofen 24% EC** to cotton within 70 days before harvest.
- Do not graze animals on green forage or stubble.
- Do not utilize hay or straw for animal feed or bedding.
- Do not apply **Sharda Lactofen 24% EC** over the top of cotton.

For early year control of grasses and broadleaf weeds, apply **Sharda Lactofen 24% EC** post-emergence as a directed spray application following a pre-plant incorporated or pre-emergence herbicide(s). Use **Sharda Lactofen 24% EC** as a post-emergence directed application when the cotton plant has reached a minimum height of 6 inches and a height difference of 3 to 5 inches has been established between the lower leaves of the cotton plant and the top of the broadleaf weeds.

Layby applications of **Sharda Lactofen 24% EC** will control broadleaf weeds that do not exceed leaf stage recommendations listed in the "**Application Rates and Weeds Controlled by Post-Emergence Activity of Sharda Lactofen 24% EC**" table of this label. Refer to the label section on **Tank Mix Partners - Cotton** for specific recommendations. Use of a crop oil concentrate or a non-ionic surfactant is required. Refer to the label section on **ADJUVANTS AND ADDITIVES** for specific recommendation.

**Tank Mix Partners - Layby Applications - Cotton**

**Sharda Lactofen 24% EC** can be tank mixed with the following cotton herbicides:

Caparol® Cotoran® diuron Envoke®	glyphosate Ignite® linuron MSMA	Roundup® PowerMAX Roundup® WeatherMAX Select® Max	S-metolachlor Valor® Warrant®
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**Cotton Tolerance**

Apply **Sharda Lactofen 24% EC** to cotton only as a Directed Spray application with nozzles set to deliver the spray mixture toward the base of the cotton plant, as specified in the "Timing" and "Application" sections of this label. Lower leaves which are contacted by the spray mixture will appear spotted or light brown to bronze in color. This response will have no effect on the growth or development of the cotton crop, and all growth following application will be normal.

It is essential to establish a height differential of 3 to 5 inches between the crop and the target weeds prior to application to ensure full coverage of the weed leaf surfaces while minimizing direct contact of the spray mixture with the upper leaves and terminal area of the cotton plant.

**Sharda Lactofen 24% EC** is a contact herbicide. It does not move throughout the cotton plant and it will not vaporize off the soil surface.

**Application Timing**

- **Post-Directed Applications - Cotton 6" or more:** For best results, apply **Sharda Lactofen 24% EC** to small, actively growing weeds. Nozzle should be set to spray no higher than the bottom 2 to 3 inches of the cotton stalk (or the top of the bark formation) and still fully cover the target weeds. A properly timed directed spray application will provide control of labeled weeds not larger than indicated in the "**Application Rates and Weeds Controlled by Post-Emergence Activity of Sharda Lactofen 24% EC**" table.
- **Layby Applications - Cotton 12" or more:** Nozzles should be set to spray no higher than the bottom 1/3 of the cotton stalk (up to the first fruiting node) and still fully cover the target weeds. Use of tank mix combinations will provide better control of larger late year troublesome weeds in cotton.

**Cultivation**

When applying **Sharda Lactofen 24% EC** at the same time as cultivation for post-emergence weeds, position the spray nozzles in front of the cultivation equipment. If **Sharda Lactofen 24% EC** is applied at the time of cultivation under dry soil conditions, excessive dust will prevent proper contact between **Sharda Lactofen 24% EC** and the weed surface. This reduced contact will reduce weed control activity. In addition, applying **Sharda Lactofen 24% EC** at ground speeds greater than 5 mph while cultivating will prevent good coverage of the weed surface by the spray solution and reduce weed control activity.

**Application Rates**

**Sharda Lactofen 24% EC Applied Alone:** Apply **Sharda Lactofen 24% EC** at a rate of 12.5 fl. oz. per acre on a broadcast basis. The sprayer must be equipped with flat fan or off-center fan nozzles designed to deliver 10 to 30 gals. of water per acre when operated at a spray pressure of 20 to 30 PSI measured at the nozzle. Pressures greater than 30 PSI may cause the spray mist to move upward into the cotton canopy resulting in severe crop injury.

**Adjuvants**

The use of recommended adjuvants has consistently enhanced weed control over a wide range of application conditions.

- **Post-Directed Applications - Cotton 6" or more:** Use either a non-ionic surfactant at 0.25% v/v; **OR** crop oil concentrate at 1 pt. per acre (broadcast basis), if bark formation has begun.
- **Layby Applications - Cotton 12" or more:** Use a crop oil concentrate at 1 to 2 pts. per acre (broadcast basis).

Adjuvant Recommendations for Use in Cotton		
Adjuvant	Post-Directed	Layby
Crop Oil Concentrate (COC) / Acre	1 pt./Acre	1 - 2 pts./Acre
Non-Ionic Surfactant (NIS)	0.25% v/v	Not Recommended

\*Only use COC during a post directed application if bark formation has begun.

**PEANUTS - DIRECTIONS FOR USE**

**Sharda Lactofen 24% EC** effectively controls a wide spectrum of important broadleaf weeds in peanuts. To control weeds, apply **Sharda Lactofen 24% EC** post-emergence to actively growing weeds no larger than sizes indicated in the "**Application Rates and Weeds Controlled by Post-Emergence Activity of Sharda Lactofen 24% EC**" table.

**Restrictions - Peanuts:**

- Do not apply more than 12.5 fl. oz./A (0.2 lb. a.i./A) of **Sharda Lactofen 24% EC** per application.
- Do not exceed a combined rate of 25 fl. oz./A (0.4 lb. a.i./A) of **Sharda Lactofen 24% EC** per year.
- Do not make a sequential application of **Sharda Lactofen 24% EC** within 14 days of the first application.
- Do not make more than 2 **Sharda Lactofen 24% EC** applications per year.
- Do not apply **Sharda Lactofen 24% EC** to peanuts later than 45 days before harvest.
- Do not allow livestock to graze treated foliage.
- Do not use treated vines for feed or forage.

**Early Post-Emergence Treatment**

A single early post-emergence treatment of **Sharda Lactofen 24% EC** can be made to control emerged broadleaf weeds at 12.5 fl. oz. per acre. Apply after the peanuts have at least 6 true leaves. To control later emerging weeds or weeds escaping the first application, a second post-emergence application of **Sharda Lactofen 24% EC** at 12.5 fl. oz. per acre can be made as long as they are still within the labeled growth stage.

**Adjuvants and Additives**

Refer to the “**Adjuvant Recommendations**” table for adjuvant recommendations.

**Crop Tolerance**

Peanuts with 6 or more emerged true leaves are very tolerant to post-emergence **Sharda Lactofen 24% EC** applications. Mature peanut leaves treated with **Sharda Lactofen 24% EC** will show some brown speckling and bronzing. Growth of the next 2-true leaves may show some cupping or crinkling of the leaf margins. Subsequent growth will be normal and peanuts quickly outgrow this temporary condition.

**Tank Mix Partners - Post-Emergence Applications - Peanuts**

**Sharda Lactofen 24% EC** may be tank mixed with the following peanut herbicides:

2,4-DB* Basagran Cadre®	Classic Dual II Magnum IntRRo	Outlook Pursuit Select® Max
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\*Use only 2,4-DB formulations approved for post-emergence use in peanuts. Add a crop oil concentrate at 1.0 to 2.0 pts./A or a non-ionic surfactant at 0.25% v/v to this mixture. Follow all 2,4-DB label restrictions relative to drift onto sensitive crops.

**CONIFER SEEDLINGS AND CONIFER NURSERIES - DIRECTIONS FOR OUTDOOR USE**

**Sharda Lactofen 24% EC** is a selective herbicide for outdoor use on and around conifer seedlings when used according to this label. **Sharda Lactofen 24% EC** works primarily through contact activity. **Sharda Lactofen 24% EC** may be used on the tolerant conifer species listed below.

**CONIFER SPECIES**

**Sharda Lactofen 24% EC** may be applied to conifer seedbeds of numerous species including the following:

Common Name	Scientific Name
<b>Fir</b>	
Douglas	<i>Pseudotsuga menziesii</i>
Fraser	<i>Abies fraseri</i>
Grand	<i>Abies grandis</i>
Noble	<i>Abies procera</i>
<b>Hemlock</b>	
Eastern	<i>Tsuga canadensis</i>
Western	<i>Tsuga heterophylla</i>
<b>Pine</b>	
Eastern White	<i>Pinus strobes</i>
Jack	<i>Pinus banksiana</i>
Loblolly	<i>Pinus taeda</i>
Lodgepole	<i>Pinus contorta</i>
Longleaf	<i>Pinus palustris</i>
Ponderosa	<i>Pinus ponderosa</i>
Sand	<i>Pinus clausa</i>
Scotch	<i>Pinus sylvestris</i>
Shortleaf	<i>Pinus echinata</i>
Slash	<i>Pinus elliottii</i>
Virginia	<i>Pinus Virginiana</i>
<b>Spruce</b>	
Blue	<i>Picea pungens</i>
Dwarf Alberta	<i>Picea glauca conica</i>
Norway	<i>Picea abies</i>
Sitka	<i>Picea sitchensis</i>

**Sharda Lactofen 24% EC** may be applied for pre-emergence and/or post-emergence broadleaf weed control in conifer seedbeds, container grown conifers, seedling transplants and conifer plantations (but not in forests).

**Precautions:**

- Occasionally slight needle burn may be observed on the youngest growth following application. New growth will be normal and the seedlings will continue vigorous growth under favorable environmental conditions.
- Plant tolerance to **Sharda Lactofen 24% EC** at labeled rates has been found to be acceptable for the indicated genera and species listed below. Due to variability within species, crop growth stage, environmental conditions, and application techniques, it is recommended that the user determine if herbicide can be used safely on a few plants prior to widespread application. Neither the seller nor the manufacturer of **Sharda Lactofen 24% EC** have investigated the safety factor to plants not listed on the label.

**Restrictions - Conifer Seedlings:**

- Do not apply **Sharda Lactofen 24% EC** when conifers are under stress from diseases, animal or winter injury, planting shock or other stresses.
- The total amount of **Sharda Lactofen 24% EC** used per year must not exceed 26 fl. oz./A.
- Do not apply Sharda Lactofen 24% EC with spray adjuvants while conifer shoot growth is young and has not hardened off.**

**Pre-Emergence Applications:** Apply **Sharda Lactofen 24% EC** to tilled, weed free, planted seedbeds or to weed-free container grown seedlings after sowing but prior to seedling emergence. **Sharda Lactofen 24% EC** can be incorporated with 0.25 to 0.5 inch water following application and before conifer seedling emergence. A pre-emergence (to weeds) application of **Sharda Lactofen 24% EC** may be sprayed directly over conifers recently transplanted providing bud break has not yet occurred. Do not mechanically incorporate **Sharda Lactofen 24% EC**. After pre-emergence application of **Sharda Lactofen 24% EC** to seedbeds, do not disturb soil or herbicidal effectiveness will be decreased. **Sharda Lactofen 24% EC** may be used as a pre-emergence application to conifers, when used as directed in the below "Pre-Emergence Applications - Conifer Seedlings" table.

Pre-Emergence Applications - Conifer Seedlings		
Weeds Controlled	Rate (Fl. Oz./Acre)	Adjuvant Recommendation
Chickweed, Common	8.0 - 16.0 (0.125 - 0.25 lb. a.i./acre)	None
Clover ( <i>Trifolium</i> spp.)		
Cottonwood ( <i>Populus</i> spp.)		
Groundsel, Common		
Lambsquarters		
Mustard species		
Nightshade species		
Pearlwort		
Pigweed species		
Pineapple weed		
Purslane, Common		
Ragweed, Common		
Sowthistle		
Spurge		
Prostrate		
Spotted		
Willow ( <i>Salix</i> spp.)		

**Post-Emergence Applications:** **Sharda Lactofen 24% EC** can be made when weeds are actively growing and no larger than 4 inches in height. **Sharda Lactofen 24% EC** works primarily through contact activity. Conifer seedlings can tolerate post-emergence treatments when **Sharda Lactofen 24% EC** is applied following complete stand emergence and when the primary shoot growth is complete and has hardened off. If **Sharda Lactofen 24% EC** is applied to newly emerged seedlings, some forking and stunting of seedlings may occur. Conifer transplants will tolerate post-emergence treatments when applications are made before bud break or after foliage has had an opportunity to harden off. Occasionally slight needle burn will be observed on the youngest conifer growth following application. New growth will not be adversely affected and conifers will continue vigorous growth under favorable growing conditions. **Sharda Lactofen 24% EC** may be used in post-emergence applications to conifers, when used as directed in the below "Post-Emergence Applications - Conifer Seedlings" table.

Post-Emergence Applications - Conifer Seedlings		
Weeds Controlled	Rate (Fl. Oz./Acre)	Adjuvant Recommendation
Beggarweed, Florida	6.5 - 16.0* (0.10 - 0.25 lb. a.i./acre)	Crop Oil Concentrate** 0.125% v/v -or- Non-Ionic Surfactant 0.25% v/v
Carpetweed		
Chickweed, Common		
Clover ( <i>Trifolium</i> spp.)		
Cottonwood ( <i>Populus</i> spp.)		
Croton, Tropic		



Dayflower, Common		
Dogfennel		
Galinsoga, Hairy		
Groundsel, Common		
Eclipta		
Mayweed		
Morningglory species		
Mustard species		
Nightshade species		
Pearlwort		
Pigweed species		
Pineapple weed		
Poorjoe		
Prickly Sida		
Purslane, Common		
Pusley, Florida		
Ragweed, Common		
Sowthistle		
Showy Croton		
Spurge		
Prostrate		
Spotted		
Willow ( <i>Salix</i> spp.)		
Witchweed		
Woodsorrel, Yellow		
*Four applications at weekly intervals of 6.5 fl. oz./A or two applications at two week intervals of 13 fl. oz./A are specified for Southern Pine species only.		
**Crop oil concentrate has been proven safe only in Southern Pine conifer species (after primary shoot growth has begun).		

#### Application Instructions

Thoroughly mix **Sharda Lactofen 24% EC** with clean water and apply at a minimum of 30 PSI in a minimum of 20 gals. per acre. Flat fan or hollow cone nozzles are recommended. Applications made at less than 20 gals. per acre or less than 30 PSI will not provide complete coverage of the weeds and will result in incomplete weed control.

Care should be taken to ensure your nursery species are tolerant to **Sharda Lactofen 24% EC** applications. In each nursery it is suggested that **Sharda Lactofen 24% EC** be tested on each species in limited areas prior to an operational application.

#### KENAF - DIRECTIONS FOR POST-DIRECTED

**Sharda Lactofen 24% EC** is a broad spectrum contact herbicide for post-emergence directed control of broadleaf weeds in kenaf. For early year control of grasses and broadleaf weeds, **Sharda Lactofen 24% EC** can be applied post-emergence as a directed spray application following a preplant incorporated or pre-emergence herbicide(s). Use **Sharda Lactofen 24% EC** as a post-emergence directed application when the kenaf plant has reached a minimum height of 10 inches and a height difference of 3 to 5 inches has been established between the lower leaves of the kenaf plant and the top of the broadleaf weeds. Make one application per year.

**Sharda Lactofen 24% EC** is a contact herbicide. It does not move throughout the kenaf plant and it will not vaporize off the soil surface.

**Restriction: DO NOT** apply **Sharda Lactofen 24% EC OVER-THE-TOP** of kenaf.

If **Sharda Lactofen 24% EC** is misapplied and contacts the kenaf plant, injury may result.

Use equipment designed to minimize spray solution contacting the kenaf plant for post-emergence directed applications of **Sharda Lactofen 24% EC** or **Sharda Lactofen 24% EC** tank mixes. Use equipment designed to help reduce spray contact with the kenaf plant. This equipment can include spray nozzles positioned a minimum of 3 inches above the soil surface and angled backward so that the spray solution discharges to the rear and underneath the row canopy; nozzles as described above with leaf lifters or shields; and/or plastic preformed hooded sprayers positioned to run between the kenaf rows.

#### Kenaf Tolerance

Direct spray application with nozzles set to deliver the spray mixture toward the base of the kenaf plant. Apply **Sharda Lactofen 24% EC** to kenaf as specified in the "Timing" and "Application" sections of this label. Lower leaves contacted by the spray mixture will appear spotted or light brown in color. This response has no effect on the growth or development of the kenaf crop, and all growth following application will be normal.

To ensure full coverage of the weed leaf surfaces while minimizing direct contact of the spray mixture with the upper leaves and terminal area of the kenaf plant, it is important to establish a height differential of 3 to 5 inches between the crop and the target weeds prior to application.

**Application Timing**

**Post-Directed: KENAF 10" or More** – For best results, apply **Sharda Lactofen 24% EC** to small, actively growing weeds. Set nozzles to spray no higher than the bottom 2 to 3 inches of the kenaf stalk and still fully cover the target weeds. A properly timed directed spray application will provide control of labeled weeds not larger than indicated in the "**Application Rates and Weeds Controlled by Post Emergence Activity of Sharda Lactofen 24% EC**" table.

**Directed Band Applications**

Directed row banding is required for use of **Sharda Lactofen 24% EC** in kenaf. Two nozzles per row, one on each side, are required for post-emergence directed application. Tractor ground speed should not exceed 5 mph. The spray equipment used should accurately direct the spray pattern to the base of the kenaf plant to minimize contact with the kenaf plant and provide good coverage of the target weeds. Spray nozzles should be positioned a minimum of 3 inches above the soil surface and angled backward so that the spray solution discharges to the rear and under the row canopy. The use of leaf lifters or shields on application equipment is recommended to help reduce spray contact with the kenaf plant. Row banding equipment should be adjusted to provide maximum coverage of weeds in the banding area.

**Cultivation**

When applying **Sharda Lactofen 24% EC** at the same time as cultivation, the spray nozzle must be positioned in front of the cultivation equipment. Under dry soil conditions, applying **Sharda Lactofen 24% EC** at the time of cultivation may cause excessive dust which will prevent proper contact between **Sharda Lactofen 24% EC** and the weed surface. This reduced contact may decrease weed control activity. In addition, applying **Sharda Lactofen 24% EC** while cultivating at ground speeds greater than 5 mph will prevent good coverage of the weed surface by the spray solution and reduce weed control activity.

**Application Rates**

Apply **Sharda Lactofen 24% EC** at a rate of 12.5 fl. oz. per acre on a broadcast basis. The sprayer must be equipped with flat fan or off-center fan nozzles designed to deliver a minimum of 10 gallons of water per acre when operated at a minimum spray pressure of 20 PSI measured at the nozzle. Pressures greater than 30 PSI may cause the spray mist to move upward into the kenaf canopy resulting in severe crop injury. For a list of weeds controlled, see the "**Application Rates and Weeds Controlled by Post-Emergence Activity of Sharda Lactofen 24% EC**" table. Refer to the below table for adjuvant recommendations.

<b>Broadcast Post-Directed Applications - Kenaf</b>		
<b>Rate (Fl. Oz./Acre)</b>	<b>Adjuvant Recommendation*</b>	<b>Application Timing</b>
12.5	Crop Oil Concentrate** 1% v/v	Post-Directed: KENAF 10" or more
Reduce broadcast rate in proportion to band area actually treated (See <b>Sprayer Calibration</b> ).		
*The use of spray adjuvants will provide enhanced control of broadleaf weeds.		

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

**Pesticide Storage:** Store in cool, dry place. Keep pesticide in original container. Do not put concentrate or dilute into food or drink containers. Not for use or storage in or around the home.

**Pesticide Disposal:** This product is acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container Handling:**

**[Nonrefillable Container (five gallons or less):]** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.

**[Nonrefillable Container (greater than five gallons):]** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.

**[Refillable Container (greater than five gallons):]** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. Triple rinse as follows: To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10%

full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. When this container is empty, replace the cap and seal all openings that have been opened during use; return the container to the point of purchase or to a designated location. This container must only be refilled with a pesticide product. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transport. DO NOT transport if this container is damaged or leaking. If the container is damaged, or leaking, or obsolete and not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling, if available, or dispose of container in compliance with state and local regulations.

**SPILL, FIRE, LEAK OR OTHER CHEMICAL EMERGENCY:** In case of spill or leak on floor or paved surfaces, soak up with sand earth or synthetic absorbent. Remove to chemical waste area.

#### **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Sharda USA LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Sharda USA LLC and Seller harmless for any claims relating to such factors.

Sharda USA LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or Sharda USA LLC and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, Sharda USA LLC, MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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