SILTBOND™

Soil Erosion Control & Water Infiltration Polymer

CONTAINS NON-PLANT FOOD INGREDIENTS:
ACTIVE INGREDIENT:
90.0% Linear, anionic copolymer of acrylamide and potassium acrylate
10.0% Inert Ingredients
100.0% TOTAL

Contains 0.05% w/w acrylamide monomer water soluble granules

KEEP OUT OF REACH OF CHILDREN

WARNING

May be harmful if swallowed
May be harmful in contact with skin
Causes eye irritation
Causes mild skin irritation
May be harmful if inhaled

NET WEIGHT: 55 Lbs. (24.95 kg) SN 040715

Information regarding the contents and levels of metals in this product is available on the Internet at http://www.aapfco.org/metals.htm

MANUFACTURED FOR
HELENA CHEMICAL COMPANY
225 SCHILLING BOULEVARD, SUITE 300
COLLIERVILLE, TN 38017
901-761-0050

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING

BEFORE USING THIS PRODUCT, READ ALL PRECAUTIONS, DIRECTIONS FOR USE, CONDITIONS OF SALE–LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES.

May be harmful if swallowed. May be harmful in contact with skin. Causes eye irritation. Causes mild skin irritation. May be harmful if inhaled. Keep product locked up and out of the reach of children. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or smoking tobacco. Remove and wash contaminated clothing before reuse. Do not take internally. Avoid contact with or inhalation of spray application mist if present. Do not apply this product in such a manner as to directly expose workers or other persons. If product is being mixed with pesticides and/or spray adjuvants, follow all precautionary statements on the accompanying product(s) labeling. Not for human or animal consumption.

Spillage: SILTBOND™ is slippery when wet. Absorb any spilled material with an inert material and dispose of in accordance with Federal, State and Local regulations governing spills of non-hazardous materials.

PROPOSITION 65 WARNING: This product contains a chemical known to the state of California to cause cancer.

Personal Protective Equipment (PPE): Wear protective eyewear (goggles or face shield), chemical-resistant gloves, long-sleeved shirt and long pants, and shoes plus socks when using this product. Take off any contaminated clothing and wash before reuse.

FIRST AID	
IF IN EYES:	• Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	• Call a POISON CENTER or doctor immediately. • Rinse mouth. Do NOT induce vomiting. • Do not give anything by mouth to an unconscious person. • Immediately call a POISON CENTER or doctor.
IF INHALED:	• Move person to fresh air and keep at rest in a position comfortable for breathing if they feel unwell. • If not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a POISON CENTER or doctor for treatment advice.
IF ON SKIN OR HAIR:	• Take off immediately all contaminated clothing. Rinse skin with water or shower. • Get medical attention if irritation develops or persists. • Wash contaminated clothing before reuse.

HOT LINE NUMBER
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

STORAGE AND DISPOSAL
Do not contaminate water, food or feed by storage or disposal.
STORAGE: Store in original container only. Keep container tightly closed. Do not allow water to be introduced into the contents of this container. Do not store near heat or open flame. Do not store with oxidizing agents or ammonium nitrate. Keep locked up and out of the reach of children.
CONTAINER DISPOSAL: Do not reuse empty container. Triple rinse (or equivalent) during mixing and loading and add rinse water to spray tank. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at www.acrecycle.org. Decontaminated containers may also be disposed of in a sanitary landfill.
For help in chemical emergencies involving spill, leak, fire or exposure, call toll free 1-800-424-9300.

GENERAL INFORMATION

SILTBOND™ is an easy-to-use, high quality granular formulation specially designed for use in soil erosion control and water infiltration applications on irrigated soils and surface irrigated crops. This is achieved through the stabilization of existing soil aggregates.

When used as directed, SILTBOND™ provides the following benefits: increases water infiltration; reduces volume of runoff water; reduces furrow deterioration; reduces crust formation; and, therefore, increases irrigation efficiency.

Soil must be loose and friable prior to application. If crust has been formed by previous irrigation or rain, SILTBOND™ will not reestablish soil structure. SILTBOND™ has benefits on all soil types; however, the product is less effective on extremely sandy soils. On extremely sloped fields, it is beneficial to use SILTBOND™ in conjunction with other erosion and runoff control practices.

SILTBOND™ has been tested on a variety of crops and been found safe to use on plants (no phytotoxic effects observed).

IRRIGATION SYSTEM INFORMATION

Application Rate

The optimum SILTBOND™ rate will vary depending upon soil type, soil conditions, field slope, water volume in head ditch, and severity of runoff and erosion problems.

Soil Erosion	Cultivated Soil	No Soil Disturbance
(potential)	pounds of SILTBOND™ per acre	
High	1.0 - 3.0	0.50
Medium	0.5 - 1.0	0.0 - 0.25
Low	0.25 - 0.50	none

Rate adjustments can be made during irrigation based on observed results. 1-3 lbs. of SILTBOND™ per acre applied in irrigation water gives excellent infiltration and erosion control benefits over a wide range of soil conditions.

Application Technique

Apply after seeding, cultivation or other soil disturbance but prior to rainfall or irrigation. Soil should be loose, friable, and in good tilth prior to application. Do not water prior to SILTBOND™ application, as soil structure will begin to breakdown. If crust has formed as a result of previous irrigation or rain, SILTBOND™ will not reestablish soil structure. A variety of dry product dispensers have been used to apply SILTBOND™ into irrigation water. Start SILTBOND™ application to irrigation water prior to setting water in the furrows. Continue application during the advance phase of the irrigation (time required to reach the end of the furrow). Treatment should be discontinued after the end of the advance phase. Occasionally a repeat dose is required after the advance phase to keep the system free of sediment. SILTBOND™ can be applied directly to the head of each irrigation furrow so that the applied product dissolves into irrigation flow. Place approximately 1 ounce of SILTBOND™ per 1,000 ft. of furrow in each row after irrigation water is started. Spread SILTBOND™ over several feet of furrow starting from downstream. It is beneficial to split apply product during the irrigation when using this technique.

SILTBOND™ should be metered into strong turbulence at least 100 feet above the first application point, siphon tube, or gated pipe gate to ensure sufficient mixing with irrigation water. If a drop or culvert is unavailable, tins or dams should be placed to create the desired turbulence. *Insufficient turbulence will detrimentally affect product performance.* SILTBOND™ application to irrigation water high in suspended sediment may result in sediment deposition in the irrigation ditch. Siphon tube flow rate can be reduced when SILTBOND™ treated water is applied through small diameter siphon tubes (3/4 inch), especially when irrigation water contains sediment. When SILTBOND™ is properly applied, soil will not erode and water infiltration into the soil

Disclaimer: Always refer to the label on the product before using Helena or any other product.

will be increased. Normal irrigation and tillage practices may need to be adjusted to compensate for these changes.

CONSTRUCTION SITE USE INFORMATION

Dry Application

SILTBOND™ can be spread onto bare soil using dry material spreaders. The standard rate of application (25 lbs./acre) should be varied based on conditions. Slope, soil conditions and rainfall all effect rate. Use the chart below as a guide. SILTBOND™ may be mixed with suitable carrier such as gypsum or lime to allow easier and more uniform spreading.

SILTBOND™ per acre	SILTBOND™ per 10,000 ft.	SILTBOND™ per 1,000 ft.
15	3.4	0.34
25	5.7	0.57
50	13.8	1.38

Stock Solution Application

SILTBOND™ will completely dissolve and remain in solution indefinitely once prepared and the resulting solutions can be applied to construction sites using a water truck or large volume spray nozzle. SILTBOND™ thickens water considerably so solution concentrations must be kept at or below 0.5% w/v. Use the chart and directions below as a guide in preparing SILTBOND™ solutions.

Solution Concentration	Gallons of Water per Pound of SILTBOND™
0.5%	24 gal./lb.
0.4%	30 gal./lb.
0.3%	40 gal./lb.
0.2%	60 gal./lb.
0.1%	120 gal./lb.

Mixing Directions

1. Mix tank must be equipped with high shear mixing capacity such as a recirculating transfer pump.
2. Do not tank mix SILTBOND™ with other materials.
3. Fill tank at least ½ full with water and begin recirculating pump or mixing paddles.
4. Add SILTBOND™ into recirculating water using a dry materials inductor to ensure that each polymer granule is wetted individually. Adding SILTBOND™ too quickly will lead to formation of insoluble clumps.
5. After tank is full, continue recirculating for another 60 minutes. The stock solution is now ready to be used; however, waiting longer will ensure greater dissolution of the polymer into the water.
6. Clean and rinse the tank thoroughly with water and apply rinse water to bare soil.
7. Do not use powder based cleaning agents since these materials will settle out if SILTBOND™ is in solution.

IMPORTANT: The following supersedes Buyer's documents. No statements herein are to be construed as inducements to infringe any relevant patent. SELLER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Under no circumstances shall Seller he liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict liability, sort or contract arising in connection with the product(s). Data and results are based on controlled or lab work and must be confirmed by Buyer by testing for the intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.