

**BRANDT**<sup>®</sup>

# Adjuvant Products Guide



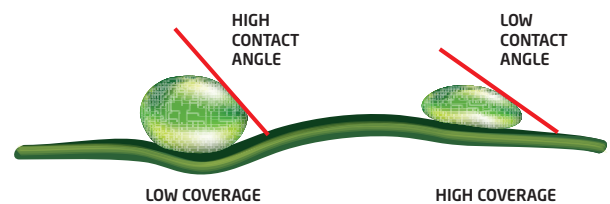


*For over 60 years, BRANDT® has had an underlying common theme: focus on its customer's success. Since 1953, BRANDT has manufactured nutritional, adjuvant, and plant protection solutions for agricultural and non-crop markets. Today, BRANDT brings these new technologies and innovative processes to consumers around the world, helping to make our customers more profitable and the world's food supply more secure.*

## What is an Adjuvant?

Adjuvants are materials added to a tank mix to aid or modify the action of an agrichemical or the physical characteristics of the mixture. Depending upon the treatment goals, adjuvants can advance the performance of the spray mixture by improving spreading, penetration, deposition, wetting, sticking, and moisture retention properties. Others can reduce drift, acidify or buffer the spray tank pH, condition spray water, and suppress or prevent spray tank foam.

The most common types of tank mix adjuvants are non-ionic surfactants (surface active agents). A surfactant will reduce the internal energy of a spray droplet that holds the droplet into a sphere and causes it to "bead up" on leaf surfaces. Surfactant molecules are water and oil soluble, which allows them to migrate to the surface of the liquid and break the hydrogen bond between water molecules. This flattens the droplet, allowing it to cover more of the leaf surface. This energy is referred to as surface tension and is measured in dynes/cm. The surface tension of water is generally recognized to be 72 dynes/cm. Most quality surfactants will reduce the surface tension of the spray solution to 20-30 dynes/cm.



# Surfactants

## NON-IONIC SURFACTANTS (NIS)

### BRANDT® AquaSurf®

A 90% active non-ionic penetrating surfactant developed to be less harmful to fish and other aquatic organisms. APE free BRANDT AQUASURF can be used to improve the performance of aquatic herbicides as well as other crop protection products. Approved for aquatic use in the state of Washington.

### BRANDT® Magnify

Designed for all glyphosate, paraquat, and sulfonyl urea herbicide formulations, unique BRANDT MAGNIFY is a powerful combination of non-ionic surfactant and liquid fertilizer products that increases effectiveness of all formulations of these materials when used either alone or in herbicide tank mixes. APE free BRANDT MAGNIFY may be used on agricultural, aquatic, forestry, vegetation management, and other non-crop sites.

### BRANDT® Organics Ag Aide - OMRI Listed

Non-ionic surfactant that enhances the activity and performance of pesticides. Provides rapid wetting and improves absorption of the spray solution. 100% *Yucca schidigera* extract. *Previously sold under the brand name Green Cypress® Ag Aide.*

### BRANDT® Ultra 90

A 90% active, non-ionic surfactant that improves the wetting of foliage and enhances the efficacy of spray solutions. Contains a humectant to increase the drying time of the aqueous spray deposit by increasing its equilibrium water content.

### BRANDT® No Foam A

Premium 90% non-ionic spreader and activator. Low foaming formulation allows for increase performance of a wide range of pesticides applied to agricultural, aquatic, forestry, vegetation management, turf, horticultural, and other non-crop sites.

### Surfact 50™ - OMRI Listed

Low-foaming non-ionic surfactant and acidifier that contains 21% *Yucca schidigera* extract. SURFACT 50 is an ideal adjuvant for use with insecticides that require a lower pH such as those containing natural pyrethrum.

### BRANDT® InSpray 90

BRANDT INSPRAY 90 is a general purpose, low foam non-ionic spreader/activator that helps maximize the effectiveness of insecticide, herbicide (aquatic and terrestrial), fungicide, defoliant and desiccant applications. It is designed for quick wetting, uniform droplet distribution and increased spray retention on leaf and stem surfaces.

## SILICONE BASED SURFACTANTS

### BRANDT® 719 Spreader - OMRI Listed

Proprietary non-ionic trisiloxane alkoxyolate based wetting agent. It's unique trisiloxane surfactant and co-polymer formulation is designed to prevent quick evaporation and run-off problems associated with some organosilicone based wetting agents. BRANDT 719 SPREADER can be used at much lower rates than conventional non-ionic surfactants.

### BRANDT® Organics Eco Spreader - OMRI Listed

Premium non-ionic 100% organosilicone wetting agent that lowers the surface tension of spray solutions at only 0.02 to 0.15 wt%, resulting in more effective wetting and more uniform surface coverage. Proven to better the speed and volume of uptake, thus improving rainfastness and efficacy of the spray solution. *Previously sold under the brand name Green Cypress Eco Spreader.*

### BRANDT® Super Wetter - OMRI Listed

A 100% premium non-ionic organosilicone surfactant engineered to efficiently wet the target and improve coverage by imparting phenomenal spreading characteristics at only 0.02 to 0.15 wt%. Beneficial in low volume spray applications and hard to penetrate dense and hydrophobic surfaces.

# Surfactants

## STICKERS

### **BRANDT® Organics S-K-H Sticker - OMRI Listed**

A premium dry sticker that is recommended for use with insecticides, fungicides, and nutritional sprays. Resists rain and irrigation wash-off by adhering the spray deposit to the target. *Previously sold under the name S-K-H Organic Adhesive Adjuvant.*

### **BRANDT® Umbrella**

A premium 100% active non-ionic polymeric terpene resin based spreader/sticker. Specialized foliar retention agents form a weatherable film upon drying.

## VEGETABLE OIL CONCENTRATES (VOC)

### **BRANDT® M.S.O.**

A superior multi component modified vegetable oil concentrate developed as replacement for pesticide labels recommending either a NIS or COC. Designed to maximize the performance of crop protection chemicals by assisting penetration of the spray mix through the plant cuticle.

### **BRANDT® Sidekick™**

Designed to improve deposition and crop canopy penetration of the spray mix. BRANDT SIDEKICK is formulated to increase the coverage of pesticide sprays and to reduce evaporation of the spray mixture on plant surfaces after application. Well suited for aerial application and ground application using low volumes of water or where the vegetable oil concentrate acts as the carrier in the pesticide spray mixture.

## CROP OIL CONCENTRATES

### **BRANDT Crop Oil**

A 100% active crop oil concentrate used as a spreader/activator/penetrant to increase the foliar absorption of various herbicides and systemic fungicides. It is a blend of 83% petroleum oil and 17% non-ionic surfactant.

## MULTI-FUNCTIONAL ADJUVANTS

### **BRANDT AdjuLock™**

BRANDT ADJULOCK is a multi-purpose adjuvant that reduces drift-able fines, and improves the wetting and spreading properties of the tank mix. It is formulated with a non-AMS water conditioner to enhance the performance and consistency of post-emergent herbicides by reducing or eliminating the tie-up of anionic herbicides with metal cations present in hard water such as calcium (Ca), magnesium (Mg) and iron (Fe). It may be used on agricultural, forestry, turf and ornamental, industrial and non-cropland sites.

### **BRANDT® Insure®**

Superior multi-purpose adjuvant that improves spray tank performance by conditioning hard water and acidifying alkaline water. BRANDT INSURE contains ammonium ions for improved translocation and improves compatibility of micronutrient tank mixes such as manganese (Mn) with glyphosate and other anionic herbicides that are deactivated by metal cations contained in hard water such as calcium, magnesium, and iron.

### **BRANDT® Super 7**

Multi-function properties help control droplet uniformity, reduce amount of driftable fines, and reduce spray tank pH levels for improved pesticide uptake and efficacy. BRANDT SUPER 7 works as a surfactant, is an excellent penetrant, and is APE free.

### **BRANDT® Torpedo®**

A unique 100% active methylated vegetable oil, lecithin, and surfactant blend that can be used with pesticides that recommend a NIS, COC, or MSO. pH neutral BRANDT TORPEDO is suited well for systemic chemistries, while its multi-component design enhances penetration properties, offers superior spreading, improves deposition of spray droplets, and reduces the production of fine droplets which are susceptible to off target movement.

### **No Foam B**

A specialized non-ionic surfactant blend designed as a spreader/activator/buffer for use on sensitive crops. Ideal for use with insecticides and fungicides when spray tank pH is a factor.

### **BRANDT A+™**

BRANDT A+ is a proprietary non-ionic surfactant that has unique properties that reduce physical drift, and enhance spray application deposition and surface activity. It also promotes superior wetting, uptake and retention of many agrochemical sprays. BRANDT A+ may be used on agricultural, aquatic, forestry, turf and ornamental, and non-cropland sites.

## Acidifier & Buffering Agents

### **BRANDT Indicate 5®**

Unique adjuvant that contains a built in pH indicator, turning the spray tank water pink as soon as the optimum level of 4.5-5.5 is reached. It eliminates the need to test the water pH with any additional equipment. Multi-purpose BRANDT INDICATE 5 aids in wetting, spreading, and acidifying spray application

### **BRANDT pH Adjust**

An extremely effective citric acid based acidifier and buffering agent specifically formulated for lowering the pH of spray solutions where phosphoric acid or other strong acids are undesirable.

### **Constant BUph-er® - OMRI Listed**

A true organic citric acid and organic vinegar buffer that will lower water pH while minimizing the potential for damage to equipment.

## Colorants

### **BRANDT Big Foot®**

A tank-mix blue colorant designed as a temporary spray pattern indicator for use on golf courses, landscape turf, and other non-crop use sites.

### **BRANDT Big Foot SS**

A concentrated tank-mix blue colorant designed as a temporary spray pattern indicator for use on golf courses, landscape turf, and other non-crop use sites.

### **BRANDT Mark-It-Red**

A concentrated red colorant designed as a temporary spray indicator primarily for use with herbicides. Replaces rhodamine red dyes. Also used to dye fertilizer solutions.

## Drift Reduction Agents

### **38-F®**

A liquid 32% active polyacrylamide polymer. Used as a drift retardant additive. It is designed for use with both ground and aerial equipment.

### **41-A®**

A dry 30% active polyacrylamide, polysaccharide polymer. Used as a drift retardant additive. It is designed for use with both ground and aerial equipment.

### **BRANDT OnSite**

A 1% polyvinyl polymer designed as a deposition aid and drift retardant. BRANDT ONSITE is compatible with all glyphosate formulations and most water soluble and wettable power pesticides, desiccants, and defoliants when applied by aerial application or standard ground equipment.

## Water Conditioner

### **BRANDT® Inhance**

BRANDT INHANCE is a water conditioning agent designed for use with herbicides that recommend or require the addition of ammonium sulfate. It enhances herbicide performance by increasing uptake and reducing herbicide antagonism.



# Irrigation Aids & Soil Penetrants

## **Aqua-Pam™ PR 3005**

A liquid concentrate retention aid that increases the available water content of soils, improving plant growth and reducing irrigation requirements. Reduces erosion, prevents crust formation, and improves general stabilization.

## **BRANDT® SoilStay™**

Effective irrigation aid used to manage irrigation-induced erosion and improve soil profile water infiltration.

## **Safe Zone 0-0-13**

A liquid soil treatment used to disperse accumulated salts through the soil profile, reducing soluble salts in the root zone. Can be used through all types of irrigation systems.

# Hydrology Drip Line Maintenance Aids

## **BioSide™ HS 15% - OMRI Listed**

BIOSIDE HS 15% is a peroxyacetic acid-based microbiocide. It disinfects and sanitizes water and controls bacteria, slime, odor and algae.

## **BRANDT® Drip-Rite® 1000**

BRANDT DRIP-RITE 1000 is designed for use as an initial system flush that clears mineral deposits caused by hard water.

## **BRANDT® Drip-Rite® 2500**

BRANDT DRIP-RITE 2500 is used as a preventative treatment for mineral scale build up.

## **BRANDT® Drip-Rite® 3000**

BRANDT DRIP-RITE 3000 is a concentrated material used as a preventative treatment for mineral scale build up.

## **BRANDT® Drip-Rite® 6000**

BRANDT DRIP-RITE 6000 eliminates and prevents rust in irrigation systems, sand media filters and wells.

## **ClearDrip®-0 - OMRI Listed**

CLEAR DRIP-0 is designed to keep irrigation lines clean and free of mineral deposits. Regular application helps protect irrigation system and minimize costly repairs.

## **Drip-Rite® 4000**

DRIP-RITE 4000 is used to suppress odors and toxic gas in ponds, and to control algae and bacteria in reservoirs, ponds and irrigation water supplies.

# Utility Adjuvants & Application Aids

## **BRANDT® Insect Bait**

Corn derived, proteinaceous liquid that enhances the effectiveness of certain agricultural insecticide applications.

## **BRANDT® Odor-Mask**

A concentrated odor masking agent containing methyl salicylate (oil of wintergreen).

## **BRANDT® Organics Defoamer - OMRI Listed**

Premium silicone based anti-foaming agent designed to prevent foam formation or defeat existing foams in pesticide spray solutions

## **BRANDT® Pesticide Equipment Cleaner**

A highly effective all-purpose liquid tank and equipment cleaner used to decontaminate spray rigs, storage tanks, etc. Use before changing from one agricultural chemical to another and before storing equipment.

## **BRANDT® Tripleline Defoamer**

A multi-component defoamer that effectively eliminates or suppresses foam in the spray tank.

Not all products listed in this catalog are available for sale in all U.S. states. For information regarding product availability in your area, please contact Brandt Consolidated, Inc. The marks BRANDT, Aquasurf, Big Foot, Indicate 5 and Insure are registered trademarks of Brandt Consolidated, Inc. All other trademarks, product names and company names that appear on this document are the property of their respective owners or licensees, who may or may not be affiliated with, connected to, or sponsored by Brandt Consolidated, Inc.

# BRANDT Adjuvants Quick Reference Guide

Product	Description	Acidifier Buffer	Deposition Aid	Drift Control	Penetrant	Spreader	Sticker	Water Conditioner	Utility	OMRI Listed
38-F	32% active liquid polyacrylamide polymer		●	●					●	
41-A	30% active dry polyacrylamide/ polysaccharide polymer		●	●					●	
BRANDT 719 Spreader	OMRI Listed non-ionic wetting agent, spreader, and penetrant				●	●				●
BRANDT A+	90% active non-ionic spreader, activator, and drift reduction agent		●	●	●	●				
BRANDT AdjuLock	Non-AMS water conditioner & drift reduction agent		●	●		●		●		
BRANDT AquaSurf	90% non-ionic, APE free surfactant for aquatic target sites					●				
BRANDT Crop Oil	83%/17% crop oil concentrate				●	●				
BRANDT Indicate 5	83% non-ionic surfactant containing a pH indicator	●				●		●		
BRANDT Inhance	Liquid AMS water conditioner							●		
BRANDT Insect Bait	Enhances effectiveness of certain ag insecticides								●	
BRANDT InSpray 90	90% active non-ionic spreader & activator					●				
BRANDT Insure	Conditioner, acidifier, compatibility agent	●				●		●	●	
BRANDT Magnify	APE free, water soluble, alkyl polyglycoside, AMS blend					●		●	●	
BRANDT M.S.O.	100% active modified vegetable oil concentrate		●		●	●				
BRANDT No Foam A	90% active non-ionic spreader/ activator					●				
BRANDT OnSite	1% polyacrylamide, deposition aid and drift retardant		●	●					●	
BRANDT Organics Ag Aide	OMRI Listed non-ionic, 100% <i>Yucca schidigera</i> extract surfactant				●	●				●
BRANDT Organics Defoamer	OMRI Listed antifoam/defoaming agent								●	●
BRANDT Organics Eco Spreader	OMRI Listed organosilicone super wetter				●	●				●
BRANDT Organics S-K-H Sticker	OMRI Listed premium dry formulated sticker						●			●
BRANDT pH Adjust	Citric acid based acidifier/buffering agent	●							●	
BRANDT Sidekick	Emulsified 93% vegetable oil concentrate derived from cottonseed		●		●	●	●			
BRANDT Super Wetter	Premium 100% organosilicone super wetter				●	●				●
BRANDT Super 7	Non-ionic, APE free, deposition aid, acidifier, penetrant	●	●	●	●	●				
BRANDT Torpedo	pH neutral deposition aid & surfactant		●	●	●	●				
BRANDT Tripleline Defoamer	Concentrated antifoam/defoaming agent								●	
BRANDT Ultra 90	90% active non-ionic surfactant & humectant					●				
BRANDT Umbrella	100% active non-ionic spreader/ terpene resin sticker					●	●			
Constant BUph-er	OMRI Listed, citric acid based	●							●	●
No Foam B	Non-ionic surfactant and buffer blend	●				●				
Surfact 50	OMRI Listed non-ionic surfactant & acidifier	●				●				●

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