

# Brandt Insure XL

Water Conditioner, Wetter, Spreader  
and Acidifier

Product Data Bulletin

## Features

- Prevents metal ions from damaging pesticides
- Protects against alkaline hydrolysis
- Contains ammonium ions
- Speeds pesticide activity with faster absorption
- Prevents tank mix antagonism

BRANDT INSURE XL is a multi-purpose adjuvant that improves spray tank performance by conditioning hard water, acidifying alkaline water, ammonium ions for improved translocations and some wetter/spreader capabilities.

*The two most important factors affecting water quality are pH and hard water.*

### Effect of Water Hardness on Pesticide/Herbicide Activity

Hard water contains high levels of calcium, magnesium, and iron ions that bond to many pesticides, post applied herbicides, insecticides and fungicides rendering them ineffective.

### Effect of pH on Pesticide/Herbicide Activity

pH of spray water can affect the activity of many chemical products. When these materials are exposed to pH above 7.5, they undergo alkaline hydrolysis and break down to products that are either less effective or totally non-effective. Chemicals sensitive to alkaline hydrolysis include but are not limited to: Organophosphates, Synthetic Pyrethroids, Carbamates, Chlorinated Hydrocarbons, Triazines and others.

## Directions for Use

Water Hardness	Application Rate per 100 gallons spray water
Soft to Medium	1-2 pints
Medium to Hard	2-3 pints
Hard to Extremely Hard	2-4 pints



### Principal Functioning Agents

Alkyl Aryl Polyther Phosphate & Organo Phosphates and Proprietary Water Conditioning Agents	80.0%
Constituents Ineffective as Spray Adjuvants	20.0%
Total	100.0%

All ingredients are exempt from the requirements of a tolerance under 40 CFR 180.

## General Information

BRANDT INSURE XL enhances the performance and consistency of post emergent herbicides by reducing or eliminating the tie-up of anionic herbicides including glyphosate and amine salt herbicides with metal cations presence in hard water such as Calcium (Ca), Magnesium (Mg) and Iron (Fe).

BRANDT INSURE XL also increases compatibility of micronutrient tank mixes such as Manganese (Mn) with glyphosate and other anionic herbicide that are deactivated by metal cations. BRANDT INSURE XL contains ammonium ions for improved herbicide uptake and translocation in difficult to control weeds.

BRANDT INSURE XL applied at a rate of 2 pints per 100 gallons is typically sufficient to lower the pH of the spray solution to approximately 4.5 - 5.5, extremely alkaline and hard water may require additional amounts. BRANDT INSURE XL is buffered and will not lower the pH of the tank solution below 4.0. BRANDT INSURE XL has some capabilities as a buffer and as wetter spreader.

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