

**PRODUCT INFORMATION** 

Product Name: QZ43

Last Updated: August 5, 2015

# PRODUCT

### QZ43 Crosslinker

# DESCRIPTION

**QZ43** is a crosslinking, trifunctional liquid agent which crosslinks water borne acrylic and polyurethane emulsions that possess carboxyl functionality. It can also be used in solvent systems, which contain reactive carboxyl groups. Crosslinking takes place at room temperature and provides a distinct improvement in solvent resistance and water resistance. Also increased chemical stain and abrasion resistance are obtained.

The recommended amount of **QZ43** to be used with acrylic and polyurethane emulsions is from two to five percent of the solids present. **QZ43** has an equivalent weight of 78. The stoichiometric amount of **QZ43** can be calculated for any emulsion provided that the reactive carboxyl content is known. It is rarely necessary to use more than 60% of the stoichiometric equivalent of crosslinker required and in many cases; much less **QZ43** will provide the necessary solvent resistance and still maintain certain physical properties such as flexibility and abrasion resistance.

It is recommended that the pH of any aqueous system incorporating the crosslinker should be kept above 8.5 with ammonia; otherwise, the crosslinker will be used as a base to neutralize carboxyls.

**QZ43** is completely soluble in water, acetone, diozane, heptane, isopropanol, n-butyl acetate, methyl cellosolve acetate, and cellosolve acetate. We have observed that although **QZ43** is completely soluble in water, concentrated solutions (70%) will completely gel in 2 or 3 days due to hydrolysis.

When **QZ43** is added to solvent based systems, within 5 days they will thicken and may gel. When **QZ43** is added to waterborne systems, it will slowly hydrolyze. If these systems are used after 3-5 days, there will be little or no crosslinking action. Merely add more crosslinker and reactivity will be restored.

## **TECHNICAL INFORMATION--Typical Physical Properties**

Viscosity cps @ 25 °F	25 ± 10
Density lbs./gal	9.14 ± 0.1
Stability 1 year after receipt	Sealed at 60-90 °F

NOTE: Moisture and other contaminates will reduce crosslinker activity

## TOXICITY:

- QZ43 has an LD50 value of 3.038 mg/kg very nearly the same as methyl ethyl ketone and toluene.
- **QZ43** is not considered to be a primary skin irritant.
- **QZ43** is a primary eye irritant.
- Films containing QZ43 as a crosslinker are considered to be nonmutagenic.

### HANDLING:

Care must be taken to avoid any contact with skin or eyes.

When **QZ43** is spilled, area should be thoroughly flushed with water. This will cause hydrolysis and make it easier to clean. For more rapid cleaning, a 5% acetic acid or mineral acid should be used. Consult product Safety Data Sheet for additional handling information.

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