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PRODUCT DATA SHEET

PRODUCT NAME: QZ43

Last updated: 0802 by RA

QZ43 CROSSLINKER

GENERAL 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 carboxyl's.

QZ43 is completely soluble in water, acetone, dioxane, 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 water -borne 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 non-mutagenic.

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.

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