



NUMBER 4466-2 (Supersedes 4466-1)

## **pHLEX™ 410**

### *pH Neutralizing Agent for Waterborne Paints and Coatings*

pHLEX 410 neutralizing agent for paints and coatings is a low-odor, pH neutralizing and stabilizing additive designed for easy incorporation and long-term pH stability in all types of latex, emulsion, and water reducible paints and coating. It was designed to replace ammonium hydroxide and other organoamine pH neutralizers. Significant odor reduction of the final paint formulation is typically achieved through the use of pHLEX 410 neutralizing agent, particularly when used in place of ammonium hydroxide.

pHLEX 410 neutralizing agent is supplied as a low-viscosity liquid for easy handling and incorporation. It has a VOC content of 54%, and will often reduce the VOC of waterborne coatings compared to other organoamines. In addition, pHLEX 410 neutralizing agent was designed with a significantly lower product odor to minimize amine odor in handling and manufacturing areas.

#### **Typical Properties<sup>(a)</sup>**

Chemical Type .....	organoamine blend
Appearance.....	clear to light yellow liquid
Viscosity <sup>(b)</sup> , as supplied, (cps or mPa·s).....	~ 15
Vapor pressure, mm Hg @ 25°C .....	~ 10
Specific gravity @ 25°C .....	1.055
Density, lb/gal.....	8.7
g/mL.....	1.04
pH of 1.0 wt % solution.....	11 – 11.5
Flash point <sup>(c)</sup> .....	> 200°F (93°C)

<sup>(a)</sup> Values are typical properties and are not to be regarded as product specifications.

<sup>(b)</sup> Brookfield LV at 25°C and 30 rpm

<sup>(c)</sup> Tag closed cup

#### **Product Benefits**

- Effective pH neutralizer
- Provides pH stability over time
- Inhibits in-can corrosion
- Helps prevent flash rusting
- Lower odor product for handling and manufacturing
- Can reduce odor of waterborne paints
- Can reduce demand of anionic dispersant

#### **Incorporation**

pHLEX 410 neutralizing agent can be easily added to either the grind or letdown stages of waterborne paint manufacture to raise pH and stabilize the emulsion. In the grind stage, it acts as a wetting agent and co-dispersant and helps optimize pigment dispersion. In the letdown stage, it provides long term pH stability. pHLEX 410 neutralizing agent is excellent for neutralizing paints thickened via alkalai swellable emulsions (ASE and HASE) and provides superior long term stability compared to ammonium hydroxide or mineral bases.



## Recommended Use Levels

In flat, semi-gloss and gloss paints, 0.1-0.4 % by weight of pHLEX™ 410 neutralizing agent is recommended. In most paint formulas, 0.2-0.3% (about 2-3 lb. per 100 gallons) is optimal.

## Volatile Organic Compounds (VOC)

pHLEX 410 neutralizing agent has a calculated level of Volatile Organic Compounds (VOC) of 54%. At a typical use level in waterborne latex paint of up to 0.3%, this would contribute approximately 2 grams per liter of VOC to the final paint formulation.

## Chemical Inventories

All components of pHLEX 410 neutralizing agent are listed on TSCA (USA), EINECS (EU) , DSL (Canada) AICS (Australia), KECL (Korea), PICCS (Phillippines), Chinese, and Japanese chemical inventories.

## Product Safety

Please read and understand the SDS before using this product.