

## Key Performance Advantages

- Improves overall paint performance
- Excellent for ultra low-VOC formulations
- Exempt from regulation as a VOC by U.S. EPA and Environment Canada



Paints and Coatings

# AMP<sup>™</sup> OFFERS POWERFUL BENEFITS AT ALL STAGES OF PAINT'S LIFECYCLE.

The only VOC-exempt amine-based neutralizer on the market.

Now you can get the unrivaled performance of AMP<sup>™</sup> with an ultra low-VOC label claim, further enhancing the existing properties of your paint.

The benefits of AMP-95<sup>®</sup> include improvements in pigment dispersion, reduction of other components, including primary dispersants and glycols, as well as optimization of other ingredient levels to maximize performance and minimize costs. To achieve the full range of AMP-95's benefits requires some reformulation, which should be easy to accomplish:

- Incorporate 0.1-0.2% AMP-95 (on pigment solids) in the grind, and as needed during letdown to adjust pH
- Reduce dispersant up to 25%
- Reduce wetting agents up to 25%
- Reduce glycols up to 10%

Optimization of dispersant, wetting agent and glycols will result in performance benefits such as better water and scrub resistance.

## AMP's Zero-VOC Benefits in All Lifecycle Stages

Processing/Paint Manufacture	Shelf Life	Application	Film Integrity & Performance
<ul style="list-style-type: none"> <li>Dispersion: increased grind efficiency improving pigment dispersion</li> <li>Neutralization: efficiency and low odor worker friendly</li> <li>Enhanced thickener performance</li> <li>Enhanced safety: good environmental, health and safety profile</li> <li>Optimization of formulation components</li> </ul>	<ul style="list-style-type: none"> <li>pH stability</li> <li>Viscosity stability and paint uniformity</li> <li>Enhanced biocide performance</li> </ul>	<ul style="list-style-type: none"> <li>Good environmental, health and safety profile</li> <li>Low odor</li> <li>Maintains rheological performance</li> </ul>	<ul style="list-style-type: none"> <li>Improved film integrity</li> <li>Improved gloss and scrub performance</li> <li>Reduced water sensitivity and water uptake</li> </ul>

## Typical Properties

The following are selected properties of AMP. They are not to be considered product specifications.

	pKa @ 25°C (77°F)	Water % by wt. (max)	Freezing/ Melting point, °C (°F)	Solubility in water at 20°C, (68°F), g/100mL	CAS/EINECS Number (primary actives)
AMP-95 Multifunctional Neutralizer	9.8	5%	-2° (28°)	Miscible	124-68-5/ 204-709-8
AMP-90® Multifunctional Neutralizer	9.8	10%	-11° (12°)	Miscible	124-68-5/ 204-709-8
AMP®-75 Multifunctional Neutralizer	9.8	25%	-48° (-54°)	Miscible	124-68-5/ 204-709-8

## Product Stewardship

ANGUS encourages its customers to review their applications of ANGUS products from the standpoint of human health and environmental quality. To help ensure that ANGUS products are not used in ways for which they are not intended, ANGUS personnel will assist customers in dealing with environmental and product safety considerations. For assistance, product Safety Data Sheets, or other information, please contact your ANGUS representative at the numbers provided in this document. When considering the use of any ANGUS product in a particular application, review the latest Safety Data Sheet to ensure that the intended use is within the scope of approved uses and can be accomplished safely. Before handling any of the products, obtain available product safety information including the Safety Data Sheet(s) and take the necessary steps to ensure safety of use.

Contact Information	North America +1-844-474-9969	Western Europe +49-69-38-079-1799	Middle East and Africa +49-69-38-079-1799	Greater China +86-40-0881-1243	Southeast Asia, Australia and New Zealand +66-2787-3335 +65-6723-1010
<b>angus.com</b>	Latin America +55-11-4700-8427	Central and Eastern Europe +49-69-38-079-1799	Indian Subcontinent +000-800-440-5098	Japan and Korea +81-34-477-4961 +82-2-3483-6665	
	<p>©™Trademark of ANGUS Chemical Company                      Notice: No freedom from infringement of any patent owned by ANGUS or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other government enactments. The product shown in this literature may not be available for sale and/or available in all geographies where ANGUS is represented. The claims made may not have been approved for use in all countries. ANGUS assumes no obligation or liability for the information in the document. References to "ANGUS" or the "Company" mean the ANGUS Chemical Company legal entity selling the products to Customer unless expressly noted. NO WARRANTIES ARE GIVEN: ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.</p> <p>Published September 2016 Form No. AMP-1541-0916-TCG</p>				