

## DMMOPA EXPERIMENTAL MULTIFUNCTIONAL ETHERAMINE ADDITIVE

DMMOPA (N,N-Dimethyl-3-methoxypropylamine) is a new, proprietary experimental etheramine developed by ANGUS Chemical Company for use in water-based automotive and industrial coatings applications.

### Typical properties<sup>(a)</sup>

1-Propanamine, 3-methoxy-N,N-dimethyl % by wt <sup>(b)</sup> ...	>98.5
(N,N-Dimethyl-3-methoxypropylamine)	
Boiling point @ 760 mm Hg .....	122°C
Specific gravity @ 20/20°C.....	0.732
Flash point, Tag Closed Cup.....	20°C/68°F
Solubility of DMMOPA in water	
@ 20°C/68°F, % by wt.....	fully miscible
Azeotrope with water:	
Boiling point @ 760 mm Hg.....	93°C/199°F
Water in azeotrope, % by wt.....	30

<sup>(a)</sup> Values shown are typical properties and are not to be considered product specifications. Test methods available upon request.

<sup>(b)</sup> Determined by GC

### Product Benefits

- Excellent release from the film due to its low boiling point and ability to form an azeotrope with water.
- Does not negatively affect the stoichiometric ratio of chemical curing reactions due to the absence of active hydrogen.
- More resistant to film yellowing than other typical organic amines such as TEA and DMEA.
- Functions as a secondary coalescing agent to help lower overall co-solvent demand of the system, resulting in a more favorable VOC (volatile organic compound) profile.
- Fully miscible with water, providing improved dispersion stability compared to more hydrophobic neutralizers.
- More fugitive than DMEA from aliphatic and aromatic carboxylate salts, enabling lower curing temperatures and potentially faster curing times.
- Better film properties including film hardness and water resistance.

### Uses

#### *Paints and Coatings*

DMMOPA is a multifunctional additive that can be used in 1K melamine-cured industrial and automotive coatings. It can also be used in air-dried and baked water-reduced industrial coatings, as well as in latex systems. DMMOPA has been shown to improve early water resistance and dry film integrity.

### Packaging and Storage

DMMOPA is classified as a Class 3 (Flammable Liquid) in the regulations issued by the U.S. Department of Transportation (US DOT 49CFR).

Store in original container and in a dry, well-ventilated location at temperatures below 30°C. Keep container tightly closed when not in use. DMMOPA will react chemically with a variety of substances, including acids and oxidizers. DMMOPA does not exhibit any decomposition under normal use conditions.

### Chemical Inventories

Chemical Name	CAS No.
1-Propanamine, 3-methoxy-N,N-dimethyl	20650-07-1

### Product Safety

When considering the use of any ANGUS product in a particular application, review the latest Safety Data Sheet (SDS) 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.