

# ADMA<sup>®</sup> 1416 AMINE

## DESCRIPTION

ADMA 1416 amine, a blend of alkyldimethylamines, is typically used as an intermediate in the manufacture of quaternary ammonium compounds. This product is a clear liquid at room temperature and has the characteristic odor of fatty amines.

## PHYSICAL PROPERTIES

|                                      |              |
|--------------------------------------|--------------|
| Alkyl distribution, wt %             |              |
| C <sub>10</sub>                      | 0.1          |
| C <sub>12</sub>                      | 4.9          |
| C <sub>14</sub>                      | 60.1         |
| C <sub>16</sub>                      | 29.9         |
| C <sub>18</sub>                      | 5.0          |
| C <sub>20</sub> & higher             | 0.1          |
| Tertiary amine, wt %                 | 99.0         |
| Primary & secondary amine, wt %      | < 0.1        |
| Water, wt %                          | < 0.1        |
| Amine value, mg KOH/g                | 223.5        |
| Color, APHA                          | 5            |
| Specific gravity, 25°C/25°C          | 0.798        |
| Freezing point, C°                   | -1           |
| Flash point, Pensky-Martens, °F (°C) | 290 (143)    |
| Appearance                           | clear liquid |

## SPECIFICATIONS

|                                      |          |
|--------------------------------------|----------|
| Alkyl distribution, wt %             |          |
| C <sub>10</sub> max                  | 2.0      |
| C <sub>12</sub>                      | 5.0 ± 2  |
| C <sub>14</sub>                      | 60.0 ± 3 |
| C <sub>16</sub>                      | 30.0 ± 3 |
| C <sub>18</sub>                      | 5.0 ± 2  |
| Tertiary amine, wt %, min            | 97.0     |
| Primary & secondary amine, wt %, max | 0.3      |
| Water, wt %, max                     | 0.2      |
| Color, APHA, max                     | 30.0     |

## SHIPPING INFORMATION

### Storage and Availability

ADMA 1416 amine can be stored in carbon steel vessels. Precautions should be taken to avoid contact with moisture, carbon dioxide and copper compounds. To prevent discoloration, air and moisture should be excluded from storage tanks by blanketing with a dry, inert gas such as nitrogen.

Shipments are made in tank cars, stainless steel tank trucks and new lined 55-gallon steel tighthead non-returnable drums.

### Shipping Classifications

|                       |                                             |
|-----------------------|---------------------------------------------|
| Proper shipping name: | Alkylamines, N.O.S.<br>(alkyldimethylamine) |
| Hazard class:         | 8 (corrosive material)                      |
| ID number:            | UN2735                                      |
| Placard(s):           | corrosive                                   |
| Label(s):             | corrosive                                   |

## SAFETY AND HANDLING INFORMATION

ADMA 1416 amine, like other tertiary amines, is an organic base and should be treated with caution. Observe good industrial hygiene and safe working practices. Avoid ingestion. Avoid contact with eyes, skin and clothing by wearing protective gloves and goggles. Wash thoroughly after handling. In case of ingestion, get immediate medical attention. In case of contact with eyes, immediately flush eyes with water for at least 15 minutes and get medical attention. In case of contact with skin, immediately wash with soap and water. Contaminated clothing should not be reused for any purpose.

For specific information on the safe handling and toxicity of this product, please refer to the Material Data Sheet that is available upon request.

**CHEMICAL REGISTRATION NUMBERS** CAS: 112-18-5/112-75-4/112-69-6



NORTH AMERICA 4350 Congress Street, Suite 700 • Charlotte, North Carolina 28209 • Tel: +1 980 299 5700  
EUROPE Industriepark Höchst, Gebäude G 879, 5926 Frankfurt am Main, Germany • Tel: +49 69 40 12 60  
LATIN AMERICA Isidora Goyenechea Nro. 3162, Oficina 202, Las Condes • Santiago, Chile • Tel: +56-55-2351008  
ASIA PACIFIC Albemarle Management (Shanghai) Co. Ltd. • Building 6, A-Sun Science & Technology Park, Lane 399 Shengxia Road  
Pudong, Shanghai 201210, China • Tel: +86-21-6103-8666

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