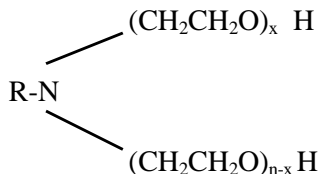


ETHOXYLATED AMINES

Tomah produces a range of ethoxylated fatty and ether amines. These amines have been reacted with various amounts of ethylene oxide to modify emulsification, surface tension, solubility, and cationic strength properties of the base amines.

Tomah ethoxylated amines are represented by the formula where R is the alkyl radical and n is the total number of moles of ethylene oxide.



- ◆ Alkyl groups commercially available from C10 to C18. Experimental products available with alkyl groups to C26.
- ◆ Increased water solubility with the addition of more ethylene oxide.
- ◆ Available with 2 to 15 moles of ethylene oxide.

SUGGESTED USES

- ◆ Acid thickening systems
- ◆ Agricultural adjuvants
- ◆ Anti-static agents
- ◆ Textile processing aids
- ◆ Cationic emulsification
- ◆ Corrosion inhibition
- ◆ Petroleum production and refining
- ◆ Detergent boosters
- ◆ Chemical intermediates for production of specialty surfactants such as quaternaries, amine oxides, etc.

ETHOXYLATED AMINES

SPECIFICATIONS

	% TERTIARY AMINE	AMINE VALUE	COLOR, GARDNER
E-14-2 bis-(2-hydroxyethyl) isodecyloxypropylamine	95 min.	175-187	9 max.
E-14-5 poly (5) oxyethylene isodecyloxypropylamine	-----	123-129	11 max.
E-17-2 bis-(2-hydroxyethyl) isotridecyloxypropylamine	95 min.	155-170	9 max.
E-17-5 poly (5) oxyethylene isotridecyloxypropyl amine	-----	112-120	11 max.
E-19-2 bis-(2-hydroxyethyl) linear alkyloxypropylamine	95 min.		6 max.
E-S-2 bis (2-hydroxyethyl) soya amine	95 min.	150-165	17 max.
E-S-15 poly (15) oxyethylene soya amine	-----	57- 63	17 max.
E-18-2 bis (2-hydroxyethyl) octadecylamine	95 min.	153-163	15 max.
E-18-5 poly (5) oxyethylene octadecylamine	-----	112-117	15 max.
E-18-8 poly (8) oxyethylene octadecylamine	-----	89-94	15 max.
E-18-10 poly (10) oxyethylene octadecylamine	-----	77-82	15 max.
E-18-15 poly (15) oxyethylene octadecylamine	-----	58-63	15 max.
E-22-2 bis (2-hydroxyethyl) octadecyloxypropylamine	98 min.	120-135	12 max.
E-T-2 bis-(2-hydroxyethyl) tallow amine	95 min.	156-164	16 max.
E-T-5 poly (5) oxyethylene tallow amine	-----	112-120	16 max.
E-T-15 poly (15) oxyethylene tallow amine	-----	59-63	16 max.
E-DT-3 poly (3) oxyethylene 1,3 diaminopropane	95 min.	230-245	17 max.
E-C-2 bis (2-hydroxyethyl) coco amine	95 min.	187-198	9 max.

ETHOXYLATED AMINES

PROPERTIES

	TYPICAL TERTIARY AMINE CONTENT	SpG (25°C)	COMBINING WEIGHT
E-14-2 bis-(2-hydroxyethyl) isodecyloxypropylamine	97%	0.94	310
E-14-5 poly (5) oxyethylene isodecyloxypropylamine	100%	0.99	445
E-17-2 bis-(2-hydroxyethyl) isotridecyloxypropylamine	97%	0.94	345
E-17-5 poly (5) oxyethylene isotridecyloxypropyl amine	100%	0.99	485
E-19-2 bis-(2-hydroxyethyl) linear alkyloxypropylamine	97%	0.99	355
E-S-2 bis (2-hydroxyethyl) soya amine	97%	0.95	374
E-S-15 poly (15) oxyethylene soya amine	100%	1.03	925
E-18-2 * bis (2-hydroxyethyl) octadecylamine	100%	0.95	360
E-18-5 * poly (5) oxyethylene octadecylamine	100%	0.97	490
E-18-8 * poly (8) oxyethylene octadecylamine	100%	1.01	610
E-18-10 * poly (10) oxyethylene octadecylamine	100%	1.02	710
E-18-15 * poly (15) oxyethylene octadecylamine	100%	1.04	930
E-22-2 * bis (2-hydroxyethyl) octadecyloxypropylamine	98%	0.88 (140 °F)	450
E-T-2 * bis-(2-hydroxyethyl) tallow amine	97%	0.91	360
E-T-5 * poly (5) oxyethylene tallow amine	100%	0.95	485
E-T-15 * poly (15) oxyethylene tallow amine	100%	1.02	925
E-DT-3 * poly (3) oxyethylene 1,3 diaminopropane	97%	0.95	240
E-C-2 bis (2-hydroxyethyl) coco amine	97%	0.95	291

* Before use, ensure material is uniform. Heat and/or mix as necessary.

ETHOXYLATED AMINES

PACKAGING

Tomah Ethoxylated Amines are available in bulk or in tighthead unlined drums. NOTE: Refer to the Material Safety Data Sheet for D.O.T. Classification and for any additional information.

CAUTION

Tomah Ethoxylated Amines are mild alkaline materials and can cause burns, rash, or irritation to skin or eyes. Avoid contact with skin or eyes. Wear eye goggles and protection clothing while handling. In case of contact with eyes, flush eyes with water, then wash with boric acid solution and see a doctor. In case of skin contact, remove contaminated clothing and wash skin with acetic acid solution. If a rash develops or irritation persists, see a doctor.

The suggestions in this publication concerning the application of Tomah products are intended only to illustrate common uses of such products. Because Tomah is not aware of the numerous factors which may affect the use of its products in any particular application, Tomah provides no warranty or representation as to the suitability of its products for any such use, or as to whether any such use may infringe a third party's patent or other proprietary right. Each customer must, on the basis of its own evaluation of those factors, assume sole responsibility for such suitability and any such infringement.

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