



FATTY AMINES

Rofamin® Primary Fatty Amines

The production of primary fatty amines from natural raw materials is one of our experiences in the field of hydrogenation. DHW fatty amines are made and distributed under the trade name **Rofamin**. Through extensive research and development, continuous quality assurance and customer feedback the **Rofamin** range has expanded to include products for a large variety of applications in industrial and chemical processing. The amines are used as

- flotation agents,
- anticaking agents,
- corrosion inhibitors,
- dispersants,

- emulsifiers and additives,
- and chemical intermediates.

Functional and chemical properties of primary fatty amines explain their different behaviour:

1. Surface active properties – The molecular structure of fatty amines is characterised by aliphatic alkyl groups, which cause the hydrophobic character and the insolubility in water. Because of the hydrophilic character of the nitrogen function primary amines are amphiphilic substances.
2. Substantivity – The substantivity is a characteristic property of fatty

amines and their derivatives which allows them to be absorbed onto solids and forms a cationic film on them. The absorption results from the attraction between the positive charge on the nitrogen atom and the negative charge of most surfaces.

3. Solubility – While fatty amines are virtually insoluble in water, their salts (acetates or hydrochlorides etc.) as well as ethoxylated amines at more than 5 moles EO can readily be dissolved in water. Most of the fatty amines and their derivatives dissolve in organic solvents.

The affinity of primary fatty amines for metal surfaces combined with their hydrophobic character makes them attractive as corrosion inhibitors and intermediates for corrosion inhibitors. Furthermore **Rofamin**'s (tallow amine, stearyl amine, hydrogenated tallow amine, oleyl amine) and their derivatives are suitable for the use as lube additives. In lubricant applications primary fatty amines are used in the manufacturing of urea greases. Urea based greases use organic thickeners derived from the reaction of fatty amines with an isocyanate.

The resulting thickener mixed with base-oils affords a grease that has particularly a good thermal stability making it suitable for applications such as the lubrication of high-speed bearings.



Rofamin - saturated amines

Product Name	Chemical Name	Form	Primary Amine %	Secondary Amine %	Amine value mg KOH/g	Iodine value g I ₂ /100 g	Colour Gardner/APHA
Rofamin T*	Tallow, hydrogenated, technical grade	solid	min. 95	max. 3	min. 207	max. 5	G max. 5
Rofamin TD*	Tallow, hydrogenated, distilled	solid	min. 98	max. 1	min. 210	max. 5	APHA max. 50
Rofamin ST*	Stearyl amine, technical grade	solid	min. 95	max. 4	min. 202	max. 5	G max. 5
Rofamin STD*	Stearyl amine, distilled	solid	min. 98	max. 2	min. 204	max. 3	APHA max. 100
Rofamin R	Alkylamine C16-C22, technical grade	solid	min. 95	max. 3	min. 195	max. 5	G max. 5
Rofamin RD	Alkylamine C16-C22, distilled	solid	min. 98	max. 1	min. 200	max. 5	APHA max. 100

*Flakes available

Rofamin - unsaturated amines

Product Name	Chemical Name	Form	Primary Amine %	Secondary Amine %	Amine value mg KOH/g	Iodine value g I ₂ /100 g	Colour Gardner/APHA
Rofamin T40	Tallow amine, technical grade	solid	min. 95	max. 3	min. 207	min. 40	G max. 5
Rofamin TD 40	Tallow amine, distilled	solid	min. 98	max. 1	min. 210	min. 40	APHA max. 100
Rofamin O 80	Oleyl amine, technical grade	liquid/pasty	min. 95	max. 4	min. 200	min. 80	G max. 8
Rofamin OD 80	Oleyl amine, distilled	liquid/pasty	min. 98	max. 1	min. 207	min. 80	APHA max. 100
Rofamin O 85	Oleyl amine, technical grade	liquid/pasty	min. 95	max. 4	min. 200	min. 85	G max. 8
Rofamin OD 85	Oleyl amine, distilled	liquid/pasty	min. 98	max. 1	min. 207	min. 85	APHA max. 100



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