

Kolate[®] 6030 M

Reactive Aluminum source for Aluminum Complex Greases

DESCRIPTION

Kolate 6030 M is an oxoaluminum acylate contained in low viscosity carrier oil. The molecule contains 0.6 mol of marine fatty acid and 0.3 mol of benzoic acid per mol of aluminum.

TYPICAL PROPERTIES

Appearance	Clear Yellow Mobile Liquid
Specific Gravity	0.92
Aluminum Content	5.2-5.4 %
Flash Point (PMCC)	>142°F

USE INFORMATION

Kolate 6030 M can be used to prepare industrial aluminum complex greases. The aluminum content is 5.3% and due to the pre-substitution of the marine fatty and benzoic acids only a small portion of the remaining acids is necessary to complete the saponification process. Kolate 6030 M is differentiated from Kolate 6030 via the type of fatty acid pre-substitution. Kolate 6030 M contains a marine fatty acid which can impart improved dropping points and work stability in the finished aluminum complex grease product. A further benefit of the product is the zero alcohol release during the manufacturing process. This is ideal for situations where strict emission restrictions are enforced.

FORMULATION

A typical starting formula for an aluminum complex base grease would have a soap concentration of 7.5% with a benzoic acid to fatty acid molar ratio of 0.75/1.0, and a total acids to aluminum molar ratio of 1.9/1.0. The formula would contain the following percentages of raw materials:

FATTY ACID	2.18%	assumes mw of 272
BENZOIC ACID	1.04%	
KOLATE 6030	8.50%	0.45% as Aluminum 3.23% as Fatty Acid 0.61% as Benzoic Acid 4.21% as Oil
OIL	<u>88.28%</u> 100%	

The base oil type and choice of fatty acid used will often require the soap concentration and molar ratios to be adjusted for optimization of the base grease. For further information on formulations and suggested manufacturing procedures see the “Kolates” Technical Bulletin.