Clariant

®Arkopal N 040

Flotation auxiliary

Composition

Alkylphenol polyglykol ether

Product properties *)

Appearance

yellowish viscous liquid

Ionicity

nonionic

Water solubility

practically insoluble

Density at 20 °C **(DIN 51757)**

approx. 0.998 g/cm³

pH of 10 % solution (ethanol/water 1:1) **(DIN 53996)**

approx. 6-8

Viscosity at 50 °C **(DIN 53015)**

approx. 43 mPa s

Solidification point **(DIN/ISO 3016)**

approx. <–10 °C

Flash point **(DIN/ISO 2592)**

approx. 220 °C

Compatibility

As a nonionic surfactant Arkopal N 040 is compatible with anionic and cationic surfactants. It is not agressive to iron and steel. The plastics are sufficiently resistant.

Storage stability

It is not necessary to take special precautions. The product is stable for minimum 2 years.

Safety precautions

Goggles and protective gloves must be worn when handling Arkopal N 040.

If the skin or the eyes are splashed with the product, it must be rinsed immediately with a plenty of water. If the eyes are affected, they must be rinsed out with plenty of water and a doctor must be consulted without delay.

*) These characteristics are for guidance only and not to be taken as product specifications. The tolerances are given in the product specification sheet. For further product properties, specifications, safety and ecological data, please refer to the MSDS.

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Clariant Produkte (Deutschland) GmbH
Functional Chemicals Division
D-65926 Frankfurt am Main

Application

Arkopal N 040 is a valuable helping agent in the process of flotation. Being a nonionic surfactant Arkopal N 040 functions as dispersing agent for tally oil, vegetable oil, fatty acid etc., resulting in a good distribution of the collector in the flotation pulp. It acts as a flotation booster, when used in combination with traditional collectors as, for example vegetable oils (tally oil, rice oil etc.) and fatty acis, specially in the apatite flotation. It has shown synergistic effects with other collectors of anionic nature. The froth development in the flotation cell remains under control. The selectivity is improved significantly against the gangue materials specially carbonates and silicates (calculated as MgO) and iron.

Generally Arkopal N 040 is added in the dosage of 5 to 25 g/t of the flotation feed. Naturally this quantity depends on other factors of the process, as for example: ore type, grain size distribution, collector type, pH, water quality, etc. of the flotation pulp.

In order to introduce this product in the flotation process the laboratory and pilot plant tests should be made before going to the industrial scale.

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