

Nouryon

# Mining Chemical Solutions

Together we optimize performance





# Winning together – delivering optimized performance for your mineral processing needs

Together we help you maximize your recovery and quality. Whether you require a customized or standard product, Nouryon will deliver the essential solutions you need, when you need it. With over 50 years of surface chemistry experience and industry partnerships, Nouryon is committed to providing you with sustainable solutions. Contact us to discuss how we can support you.

Mining Application		Products	Key Benefits
Calcite	Silica flotation	ACD 82808-N	Fine particle tolerant
		Armoflote 18	For less complex, easy to float systems
		Lilafлот 1590	Proprietary formulation, fine particle tolerant
		Lilafлот 730	Proprietary formulation, for coarse particle size feeds
		Lilafлот 1400	Proprietary formulation, efficiency booster for Armoflote 18 and Lilafлот 1590
	Decolorizing flotation	Lilafлот 1597	For reverse flotation of Fe containing minerals such as pyrite
		Armoflote GS13	For reverse flotation of hydrophobic minerals such as graphite, talc
Iron Ore (magnetite, hematite, itabrite)	Silica flotation	Armoflote 930	Low tox collector for silica flotation
		Lilafлот 811M	For mixed silicate ores (quartz to non-quartz silicates)
		Lilafлот 821M	For mixed silicate ores (quartz to non-quartz silicates)
	Lilafлот D826M	For mixed silicate ores (quartz to non-quartz silicates)	
Dephosphorization		Atrac 1563	For hard process water and iron oxides containing phosphate
		Atrac 2600	Iron oxides containing phosphate
Phosphate	Direct flotation	Atrac 1563	A fatty acid booster or collector for complex, difficult to float ores and/or hard process water
		Atrac 2600	Synthetic anionic collector for improved selectivity
		Atrac 922	Proprietary formulation, primary collector for igneous deposits containing carbonates
		Berol 8313	Formulation for complex difficult to float ores and/or hard process water
		Phospholan PE65	A fatty acid booster in complex difficult to float ores and/or hard process water, performs over wide temperature range
	Silica flotation	Armoflote 930	For use over a wide range of process water qualities
		Lilafлот 450	For use over a wide range of process water qualities
		Lilafлот 850M	For use over a wide range of process water qualities
	Carbonate flotation	Atrac 50N	Proprietary formulation, for low pH systems
	Potash	Sylvite flotation	Armeen HT
Armac HT			Dispersible in water, performs at ambient to slightly elevated temperatures (approx 18–30°C)
Armeen M			Coarse recovery booster at elevated brine temperatures (>28°C)
Lilafлот FAB53			Suitable for systems with elevated brine temperatures (>30°C)
Armeen HF			Coarse recovery booster or collector at elevated brine temperatures (>28°C)
Slime flotation		Ethomeen HT/40	Slime flotation collector
		Phospholan PE 65	Slime flotation collector
Halite flotation	Armoflote 619	Suitable for reverse flotation of carnallite	

Mining Application		Products	Key Benefits
Barite	Silica flotation	Armoflote 17	Suitable for reverse flotation where impurities are silicates
Feldspar	Direct flotation	Lilafлот OT 45	Suitable for fluoride systems
		Armeen T	Suitable for fluoride systems
		Duomeen TDO	Suitable for fluoride and non-fluoride systems
Magnesite	Silica flotation	Armoflote 18	Suitable for reverse flotation of less complex ores where impurities are silicates
		Lilafлот 20193L	Developed for reverse flotation of complex ores where impurities are silicates
Spodumene	Silica flotation	Armeen T	Performs in reverse flotation where impurities are silicates
		Atrac 2600	Direct flotation of spodumene
Wollastonite	Direct flotation	Armoflote 18	Performs in direct flotation process where impurities are carbonates
		Duomeen T	Performs in direct flotation process where impurities are carbonates
Zinc Oxide	Direct flotation	Armeen C	Suitable for direct flotation
Kaolin	Direct flotation	Armeen C	Suitable for direct flotation
		Armeen OL	Suitable for direct flotation
Fluorspar	Direct flotation	Berol 8313	Suitable for direct flotation
Pyrochlore / Niobium	Direct flotation	Armacflote 109	Suitable for direct flotation of pyrochlore systems
		Lilafлот 1400	Proprietary liquid formulation, suitable in direct flotation of pyrochlore systems
Scheelite	Direct flotation	Berol 8313	Developed for direct flotation
Potash	Anticaking	Armeen HT	Suitable for anticaking treatment for load out, storage and/or transport
		Armac HT	Dispersible in water, suitable for anticaking treatment for load out, storage and/or transport
		Armeen T	Suitable for anticaking treatment for load out, storage and/or transport
Other salts	Anticaking	Armoflo AC-59 P	Suitable for anticaking of NH4-Nitrate
		Petro AGS	Suitable for K-Nitrate, NH4-Nitrate, NH4-Sulfate and Urea anticaking
Process Aids	Dewatering	Berol 1007	Aid for mineral dewatering
		Berol 1008	Aid for mineral dewatering
	Dispersion	Alcosperse 149	General purpose mineral dispersant
		Alcosperse 747	Suitable for dispersion of hydrophobic particles
	Flocculation	Floc-Aid 19	Suitable for flocculation of neutral to slightly anionic particles
		Floc-Aid 34	Suitable for flocculation of neutral to slightly anionic particles
	Frothers	Lilafлот SB9	Suitable for phosphate, potash etc
Internal Additives	Petro AGS	Increases granular integrity for DAP, MAP and NH4-Nitrate	
	Petro P	Increases granular integrity for SSP, TSP and NH4-Nitrate	

Contact us directly for detailed product information  
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We are a global specialty chemicals leader. Markets worldwide rely on our essential chemistry in the manufacture of everyday products such as paper, plastics, building materials, food, pharmaceuticals and personal care items. Building on our nearly 400-year history, the dedication of our 10,000 employees, and our shared commitment to business growth, strong financial performance, safety, sustainability and innovation, we have established a world-class business and built strong partnerships with our customers.

We operate in over 80 countries around the world and our portfolio of industry-leading brands includes Armeen, Berol, Atrac, Lilaflore and Tecflore.

For more information visit [surfacechemistry.nouryon.com](http://surfacechemistry.nouryon.com)

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