

Flotation reagents for non-sulfide ores



Evonik Corporation has over 40 years of experience supplying industrial gases and performance chemicals to the mining industry. Our global reach throughout the major mining regions provides customers with local support to help them enhance performance and optimize value.

A FOCUS ON CATIONIC CHEMISTRIES FOR REVERSE FLOTATION OF SILICATES

Evonik Corporation produces an array of performance chemicals that serve the mining industry. At the core of that technical know-how is the production of high-quality reagents for reverse flotation of non-sulfide ores. Our Tomamine® product line of ether amines is designed specifically for this type of mineral flotation. These unique ether amines offer excellent low-temperature liquidity and a strong affinity for silica impurities, making them ideal for the removal of quartz and acid silicates.

Tomamine flotation reagents' unique properties make them ideal for reverse flotation, which is the process of selectively removing impurities during ore flotation by taking advantage of differences in hydrophobicity and zeta potential. The selective separation of minerals using Tomamine reagents can make processing complex or lower grade ores more economically feasible.

Different applications and minerals pose different extraction challenges. Evonik Corporation can tailor make formulations utilizing multiple chemistries to help optimize metal recovery, level of frothing and concentrate grade. We welcome the opportunity to discuss your specific application. Contact us at 800-345-3148 or cheminfo@airproducts.com.

UNIQUELY QUALIFIED TO OPTIMIZE YOUR METAL RECOVERY WITH TAILOR-MADE CHEMICAL SOLUTIONS.

EVONIK CORPORATION'S FLOTATION REAGENTS FOR NON-SULFIDE ORE

ORE TYPE	ELEMENT	MINERAL TYPE(S)	APPLICATION	FLOTATION REAGENT
Calamine	Zn	Smithsonite, Hemimorphite, Willemite	Co-collector may be used with Xanthates	Tomamine M-73 Tomamine M-43
Feldspar	Al, Si	Orthoclase, Albite, Anorthite	Direct flotation	Tomamine PA-14 30% Acetate
			Direct flotation – fine particles	Tomamine M-73
Glass Sands	Si, Al, K, Na, Ca	Quartz, Mica	Direct flotation – fine particles	Tomamine M-73
Iron Ores	Fe	Hematite	Reverse flotation	Tomamine PA-14 30% Acetate Tomamine PA-14F 30% Acetate Tomamine M-30
		Magnetite	Reverse flotation	Tomamine M-73 Tomamine M100-7 Tomamine M-43
Phosphate	P	Phosphorite	Reverse flotation	Tomamine PA-14 30% Acetate Tomamine PA-14F 30% Acetate
			Reverse flotation – fine particles	Tomamine M-73 Tomamine M100-7 Tomamine M-43
Potash	K	Silvinite, Schoenite	Direct flotation – fine particles	Tomamine PA-2220 Tomamine DA17-40

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