



Danafloat™ 607 E mineral collector

Application

Danafloat 607E is a blended aqueous solution of dialkyl dithiophosphate and thionocarbamate collectors that has been designed to remain homogenous.

Danafloat 607E offers good selectivity against pyrite in sulfide flotation and can provide good to excellent flotation response to various copper minerals, including but not exclusively, chalcopyrite, bornite, chalcocite and covellite. Other applications are in the flotation of galena and copper activated sphalerite, tetrahedrite and gold ores.

The product can be used in conjunction with xanthate or as a replacement and, depending on mineralogies and flotation circuit conditions, this product may be stronger than xanthate in which case the dosage will be lower than xanthate.

Danafloat 607E should be fed to the circuit undiluted but because the product does emulsify, dilution is possible before dosing to a circuit. Before deciding to dilute the product, because water chemistry can have an impact, stability tests at the solution concentration desired is highly recommended.

Danafloat 607E is normally used in neutral to alkaline conditions (> 6 pH). Typical dosage levels depend on ore feed grades, mineralogies and flotation responses, but typical dosage levels range between 10 to 50 grams per metric ton ore (0.020 to 0.11 lb/T).

The dosage of *Danafloat 607E* varies with the type of ore, usually falling within the range of 5 to 50 grams per metric ton ore. However, it is usually considerably less than for other sulphide collectors.

Danafloat 607E is effective in the pH range of 4 to 12.

Composition

Chemical name:	Na sec-butyl dithiophosphate, thionocarbamate, sec-butanol
CAS name:	Phosphorodithioic acid, O,O.-bis(1-methyl propyl)ester, sodium salt O-Isopropylethylthionocarbamate Sec-butanol
Active ingredient:	30-33%, 27-28%, 2-3% respectively

Physical properties

Appearance:	Light brown
Form:	Liquid (aqueous solution)
Boiling point:	101 to 101.5 degrees C
Freezing point:	Minus 10 to minus 13 degrees C
Specific gravity:	1.079 g/ml at 20 degrees C
Flash point:	Above 100 degrees C (Pensky-Martens closed tester)



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Safety and handling

Danafloat collectors are manufactured under the highest quality standards; nonetheless, these chemicals can be hazardous and harmful. Always read and understand the MSDS before handling the product.

Safe handling includes use of safety glasses, splash shield over face, natural rubber gloves and protective clothing. Additionally, avoid inhalation of vapours.

Storage

When properly stored, *Danafloat 607E* has a shelf life of at least 2 years provided the product is stored under the following guidelines:

+ Store the product in a dry and well-ventilated location away from heat and sunlight

- + Use a first in-first out inventory control
- + Avoid freezing
- + Store in plastic drums, polypropylene IBCs/totes, or coated steel drums.

Environmental impact

Danafloat 607E is biodegradable. Do not allow product to report to a natural stream as this product can cause ecotoxicity issues.

Most of the collector is adsorbed to the concentrate mineral particles and removed from the system. Any residual in the water phase and adsorbed to minerals that are not floated report to the tailings. Release of the product directly to natural water streams should be avoided.

Packing

Danafloat mineral collectors are supplied in a range of containers including plastic drums, coated steel drums, polypropylene IBCs/totes and tank containers having the following net product weights:

IBC containers	Net weight: 1,000-1,075 kg
	Gross weight: approx. 1,059-1,134 kg
Tank containers	approx. 20 mt (44,092 lbs.)

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