

# DEPRAMIN C

## FROTH FLOTATION

Froth flotation is a process widely used to selectively separate valuable minerals from worthless gangue. The process relies heavily on the differences in the mineral surfaces' hydrophobic character to accomplish this task.

Most minerals in nature are hydrophilic (non-hydrophobic) and do not readily float in froth flotation without the use of chemical reagents known as collectors. (Collectors – physically adsorb on the precious mineral surfaces rendering the particles hydrophobic and “floatable”)

The problem in froth flotation is that certain gangue minerals have hydrophobic surfaces and undesirably float contaminating the precious mineral concentrate. To negate the hydrophobic minerals tendencies to float, depressants are used. (Depressants – physically adsorb on the surface of gangue minerals rendering the particles hydrophilic and “non-floatable”)

The use of depressants allows for higher precious metal recovery and grades and can improve the economics of downstream processing (e.g., smelting costs).

**Depramin C** is specifically engineered to counter the contaminating effects of naturally floating gangue minerals. **Depramin C** selectively adsorbs onto the surfaces of the hydrophobic gangue minerals reducing their tendency to float in froth flotation processes.

**Depramin C** has proven itself effective in a wide range of mineral froth flotation processes, but is primarily used in Sulfide mineral flotation (PGMs, Ni, Cu) Potash.

## MIXING & HANDLING

**Depramin C** is non-hazardous material. In case of inhalation or skin contact, rinse with water. Keep in a dry place and store at room temperature.

**WHMIS:** Not controlled

**TDG:** Not regulated

**Packaging:** 1000kg totes

## PHYSICAL PROPERTIES:

**Appearance:** Off-white powder

**Density:** 1500 kg/m<sup>3</sup>

**Bulk Density:** 450-900 kg/m<sup>3</sup>

## CHEMICAL PROPERTIES:

**Solubility:** Soluble, gel formation

**pH:** 7.0 – 10.0 (1% solution)

**Ignition Temperature:** 360°C

**Lower Explosion Limit:** 60 g/m<sup>3</sup>

