



# TKI-330

FOR DEPRESSION OF IRON  
& COPPER SULFIDE



# TKI-330 is a water-based proprietary sulfide solution that acts as a mineral depressant in mining applications, especially in molybdenum recovery circuits.

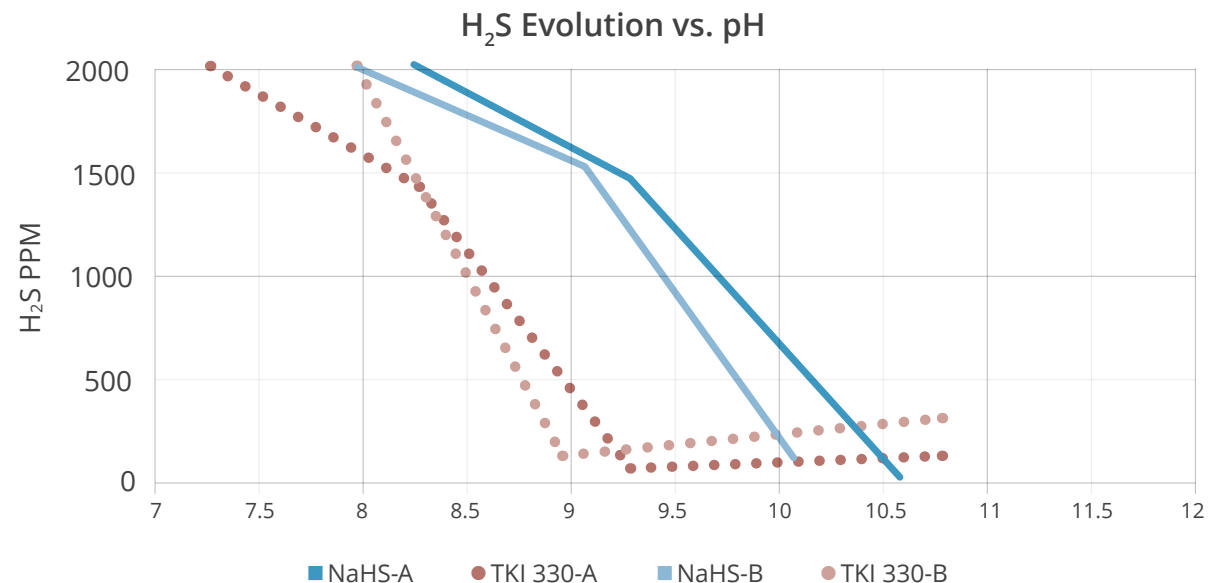
Mineral sulfides such as iron and copper are depressed by TKI-330 to facilitate molybdenum sulfide recovery and grade/concentration. TKI-330 has been tested at several mines and results obtained demonstrate that it is an excellent replacement for NaHS and/or FeCN as a copper/iron sulfide depressant, with virtually identical metallurgical results in molybdenum roughers and cleaners. When it comes to environmentally friendly and effective sulfur-based products, we provide effective and high quality solutions for molybdenum recovery.

## WHY TKI-330?

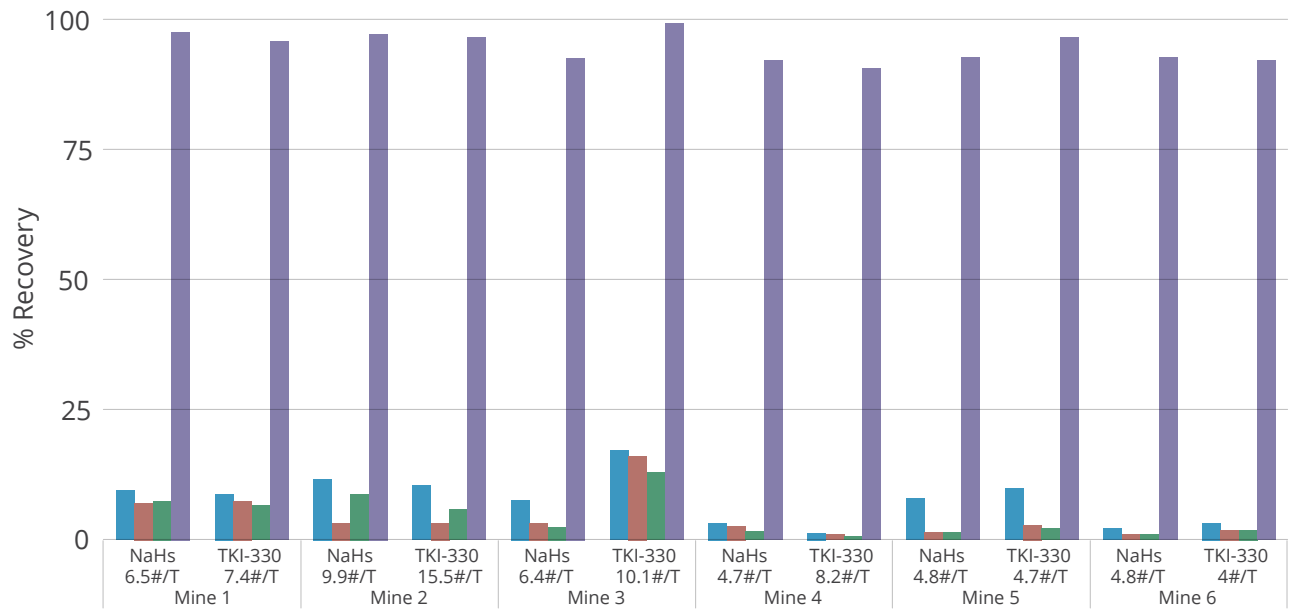
- Provides virtually identical metallurgical recoveries relative to NaHS at similar dosages
- Depresses copper (Cu) and iron (Fe) sulfides in the molybdenum circuit
- Provides significant health, safety and environmental (HSE) advantages over NaHS with respect to handling, storage and application:
  - Has a much lower hydrogen sulfide (H<sub>2</sub>S) vapor pressure in comparison to NaHS, especially at a lower pH operating range
  - Has a lower freezing point than NaHS: 18 to 25°F for TKI-330 vs nominal 40-60 °F for NaHS

## TYPICAL PROPERTIES

Active Ingredient	27% - 29%
Calcium [Wt. % Ca]	5.8% - 6.4%
Sulfur [Wt. % S]	21% - 23%
Approximate Specific Gravity	1.26 - 1.28
Approximate Weight per US Gallon	10.6 lbs.
pH (neat)	10.5 - 11.5
pH (300 ppm in DI water)	9.88 @ 24°C (water pH is 7.05)
pH (300 ppm in Tap water; Solution is Cloudy)	9.18 @ 24°C (water pH is 7.55)
Color	Ruby - Red



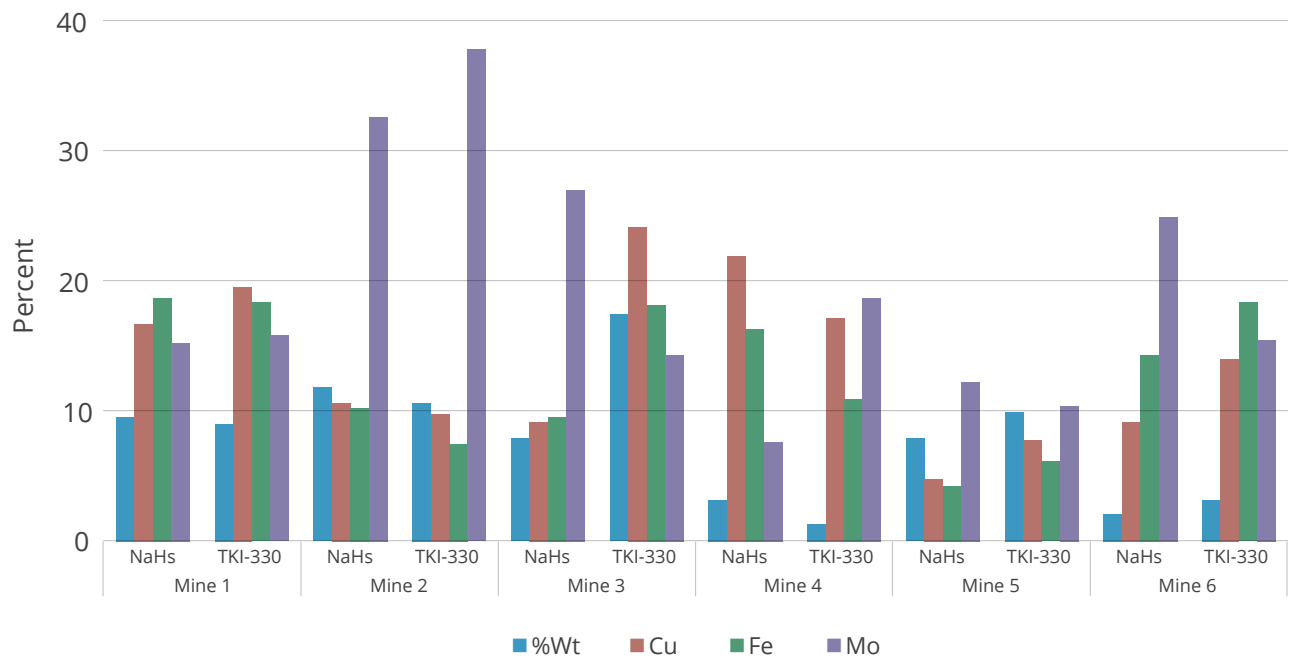
### Rougher Recovery vs. Depressant/Mine



Mo Recoveries > 90% • Cu Depression: 81-95% • Fe Depression: 87-99%

■ %Wt ■ Cu ■ Fe ■ Mo

### Rougher Concentrate Grade vs. Depressant/Mine



■ %Wt ■ Cu ■ Fe ■ Mo

## PACKAGING AND HANDLING

TKI-330 is a water-based liquid, available in bulk tank trucks or railcars; material is also available packaged in non-returnable drums or totes. Store totes, drums and small containers out of direct sunlight at moderate temperatures.

Materials of construction suitable for storing and handling TKI-330 at ambient temperatures [up to 49°C (120°F)] include stainless steel, polypropylene and polyethylene. Handle and dilute TKI-330 in closed containers to avoid exposure to product vapors (H<sub>2</sub>S). Avoid mixing TKI-330 with acids or acidic materials, to prevent H<sub>2</sub>S evolution.

Use TKI-330 in a well ventilated area, and wash thoroughly after handling. Avoid contact with skin and eyes.

Observe all safety precautions shown on the product label and in the safety data sheet.



While every care has been taken to ensure that the information in this brochure is correct at the time of publication, Tessenderlo Kerley, Inc. can neither give any guarantee as to its accuracy nor accept any liability resulting from its products' use.

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