



## TOR H<sub>2</sub>O<sub>x</sub> HV Technical Sheet



### **Description:**

TOR H<sub>2</sub>O<sub>x</sub> HV is a molybdenum based friction modifier that uses water as a carrier. It was developed specifically to address the need for an enhanced water-based top of rail friction modifier for longer carry distances. TOR H<sub>2</sub>O<sub>x</sub> HV formulation is non-hazardous per OSHA and designed to adhere to the rail. This characteristic allows less material consumption for same benefit as traditional water-based friction modifiers. The formulation also does not require additional agitation to remain stable across a wide temperature range.

### **Applications:**

TOR H<sub>2</sub>O<sub>x</sub> HV is an all-weather friction modifier for top of rails. It is specifically designed for use with Loram's trackside and switching yard applicators. With controlled application rates, TOR H<sub>2</sub>O<sub>x</sub> HV reduces lateral curving forces and top of rail friction levels. Main benefits of using TOR H<sub>2</sub>O<sub>x</sub> HV are increased fuel efficiency, increased rail life, increased safety (reduced derailment forces), and reduced track component wear. TOR H<sub>2</sub>O<sub>x</sub> HV users benefit from longer carry down distances (4+ miles) thus requiring fewer trackside units and associated operating costs. TOR H<sub>2</sub>O<sub>x</sub> HV is field tested to carry down 1+ mile in downhill applications.

### **Physical Properties:**

<b>Boiling Point:</b>	>212°F (>100°C)
<b>Specific Gravity:</b>	1.11 – 1.17 (Kg/Liter)
<b>Weight per Gallon (US):</b>	9.24 – 9.75 pounds/gallon (US)
<b>Viscosity:</b>	> 500 cst @ 22°C
<b>Appearance:</b>	Viscous, dark grey to black liquid
<b>Odor:</b>	None
<b>Solubility in Water:</b>	Miscible in water
<b>Incompatibilities:</b>	Oxidizing materials, acids, alkali metals, metal hydrides and zirconium
<b>Flammability:</b>	Non-flammable, non-combustible
<b>Stability:</b>	Stable under normal handling conditions
<b>Corrosive:</b>	Non-corrosive



Speed, Performance, and Reliability

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