

# Product Data Sheet

## NA-LUBE<sup>®</sup> ADTC



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**NA-LUBE ADTC** is a unique ashless dithiocarbamate offering extreme pressure, antiwear and antioxidant properties.

### CHEMICAL

**COMPOSITION:** Methylene-bis-(dibutyldithiocarbamate).

**APPEARANCE:** Light brown moderately viscous liquid.

### TYPICAL

<b>PROPERTIES:</b>	Sulfur Content	30.0%
	Nitrogen Content	6.5%
	Pour Point (ASTM D 97)	-13°C (9°F)
	Viscosity @ 40°C (ASTM D 445, DIN 51 550)	370 mm <sup>2</sup> /s (cSt)
	Viscosity @ 100°C (ASTM D 445, DIN 51 550)	15 mm <sup>2</sup> /s (cSt)
	Density @ 15.6°C (ASTM D 4052)	1.05 g/ml
	Weight Per Gallon @ 25°C	8.8 lbs
	Flash Point, COC (ASTM D 92, DIN 51 376)	180°C (356°F)

Note: The above analytical data are not specifications.

	<u>Typical Treat Levels</u>
<b>APPLICATIONS:</b> Heavy Metal-Free Greases	2.5% - 5.0%
Industrial Gear Oils	0.8% - 1.5%
Hydraulic Fluids	0.5% - 1.0%
EP-Turbine Oils	0.5% - 1.0%
Automotive Gear Oils	3.0% - 7.0%

**NA-LUBE ADTC** is an ashless multifunctional additive which can be used as an extreme pressure, antiwear and antioxidant additive in lubricants and greases where heavy metals are not desired. Due to its chemical nature, **NA-LUBE ADTC** is ideally suited for formulating antimony-free, lead-free and low ash containing EP greases. Since **NA-LUBE ADTC** exhibits outstanding antiwear and antioxidant properties, it can also be used as an efficient additive for manufacturing industrial gear oils, hydraulic fluids and rust and oxidation oils. Combinations of **NA-LUBE ADTC** with NA-LUBE EP-5130, NA-LUBE AO-130 and NA-SUL<sup>®</sup> 729-NF or K-CORR<sup>®</sup> 100A2 will help to achieve optimum results. A treat level of approximately 1.0% of **NA-LUBE ADTC** in an appropriate base oil will achieve more than 12 load stages on the FZG test rig. **NA-LUBE ADTC** also exhibits good demulsification properties and does not negatively influence AFNOR filtration test results.

(see reverse side)

## NA-LUBE<sup>®</sup> ADTC

**ADVANTAGES:**

- \* Multifunctional additive with extreme pressure, antiwear and antioxidant properties
- \* Outstanding demulsibility and good thermal stability
- \* Excellent solubility properties in highly paraffinic base stocks

**TEST RESULTS:** Technical reports are available from King Industries and can be requested by contacting the offices shown below.

**SOLUBILITY:** Soluble in petroleum and synthetic lubricant base stocks and most common solvents. Insoluble in water. However, it is recommended to verify the solubility in the base oils used and the compatibility with other additives.

**STANDARD PACKAGING:** 440 lbs (200 kg) closed head drum.

**STORAGE CONDITIONS:** Formation of haze or crystallization may occur during storage under long term freezing conditions. If this occurs, warming to 40-50°C with agitation will reconstitute the product. Avoid heating above 60°C. Store in a cool, dry place away from any direct source of heat and moisture. Maximum recommended storage temperature: 46°C (115°F)

**SHELF LIFE:** Best if used within 2 years from the date of manufacture.

**HANDLING:** Avoid all personal contact. Observe good personal hygiene. For additional information, it is advised to consult the Material Safety Data Sheet (MSDS) for **NA-LUBE ADTC**.

**REGISTRATION:** Please refer to Section 15 of the Material Safety Data Sheet for information.

For Samples or Technical Service, contact King Industries or your King representative.

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Revision date: 29 JUL 2004

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