

# Product Data Sheet

## NA-LUBE<sup>®</sup> EP-5210



Science Road  
Norwalk, CT 06852  
(800) 431-7900  
Fax: (203) 866-0425  
E-Mail: lad@kingindustries.com

**NA-LUBE EP-5210** is a light colored, low odor, inactive sulfur carrier with excellent extreme pressure properties. It is recommended for metalworking fluids, industrial lubricants and greases.

### CHEMICAL

**COMPOSITION:** Sulfurized fatty acid ester.

**APPEARANCE:** Light brown clear liquid.

### TYPICAL

<b>PROPERTIES:</b>	Sulfur Content	10.0%
	Active Sulfur Content (ASTM D 1662)	<1.0%
	Color (ASTM D 1500 neat)	3.5
	Viscosity @ 40°C (ASTM D 445, DIN 51 550)	25 mm <sup>2</sup> /s (cSt)
	Density @ 20.0°C (ASTM D 941)	0.95g/ml
	Weight Per Gallon @ 25°C	7.91 lbs.
	Flash Point, COC (ASTM D 92, DIN 51 376)	170°C (338°F)

Note: The above analytical data are not specifications.

		<u>Typical Treat Levels</u>
<b>APPLICATIONS:</b>	Metalworking Fluids	4.0% - 10.0%
	Water Miscible Metalworking Concentrates	5.0% - 20.0%
	Industrial Gear Oils	1.0% - 1.2%
	Greases	3.0% - 5.0%

**NA-LUBE EP-5210** is a unique low odor, light colored, inactive sulfur carrier based on fatty acid ester chemistry. When used in combination with appropriate antiwear additives, **NA-LUBE EP-5210** provides excellent extreme pressure and antiwear properties especially suited for metalworking fluids formulated for the machining of non-ferrous and aluminum alloys. **NA-LUBE EP-5210**'s unique chemistry gives it excellent solubility characteristics in severely hydrotreated mineral oils, polyalphaolefins, and synthetic diesters. When used in combination with ash-containing or ashless phosphorus-type antiwear and lubricity additives, **NA-LUBE EP-5210** is an outstanding alternative to chlorinated paraffins in metalworking fluids.

- ADVANTAGES:**
- \* **Good extreme pressure properties**
  - \* **Light color, low odor**
  - \* **Usable with non-ferrous metals and aluminum alloys**
  - \* **Easy handling; low viscosity**
  - \* **Excellent solubility properties in Group I and II oils**

(see reverse side)

## NA-LUBE<sup>®</sup> EP-5210

**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:** 441 lbs (200 kg) closed head drum.

### STORAGE

**CONDITIONS:** Store in a cool, dry place away from any direct source of heat and moisture. Maximum recommended storage temperature: 30°C (86°F)

**SHELF LIFE:** Best if used within 1 year 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 EP-5210**.

**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.

King Industries, Inc.  
Science Road  
Norwalk, CT 06852-0588  
Tel: 203-866-5551  
Fax: 203-866-0425  
E-mail: LAD@kingindustries.com

King Industries International, Inc.  
Noordkade 64, 2741 EZ Waddinxveen  
The Netherlands  
Tel: +31-182-631360  
Fax: +31-182-621002  
E-mail: info@kingintl.nl

NA-LUBE<sup>®</sup> is a registered trademark of King Industries, Inc.

v:\lad\Technical Literature\CumtTDS\NALUBE\EP5210\_03  
Revision date: 29 JUL 2004

The conditions of your use and application of our products, technical assistance and information (whether verbal, written or by way of product evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. Such testing has not necessarily been done by King Industries, Inc. ("King"). The facts, recommendations and suggestions herein stated are believed to be reliable; however, no guaranty or warranty of their accuracy is made. EXCEPT AS STATED, THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE. KING SHALL NOT BE HELD LIABLE FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES. Any statement inconsistent herewith is not authorized and shall not bind King. Nothing herein shall be construed as a recommendation to use any product(s) in conflict with patents covering any material or its use. No license is implied or granted under the claims of any patent. Sales or use of all products are pursuant to Standard Terms and Conditions stated in King sales documents.