

# Product Data Sheet

## NA-SUL<sup>®</sup> 611



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**NA-SUL 611** is a premium non-staining rust and corrosion inhibitor with excess alkalinity in the form of oil-soluble barium carbonate.

### CHEMICAL

**COMPOSITION:** Carbonated basic barium dinonylnaphthalenesulfonate in light mineral oil.

**APPEARANCE:** Clear brown viscous liquid.

### TYPICAL

<b>PROPERTIES:</b>	Barium Content	11.7%
	Total Base Number (ASTM D 4739)	45 mg KOH/g
	Viscosity @ 40°C (ASTM D 445, DIN 51 550)	2400 mm <sup>2</sup> /s (cSt)
	Viscosity @ 100°C (ASTM D 445, DIN 51 550)	66 mm <sup>2</sup> /s (cSt)
	Density @ 15.6°C (ASTM D 4052)	1.08 g/ml
	Weight Per Gallon @ 25°C	9.0 lbs
	Flash Point, COC (ASTM D 92, DIN 51 376)	165°C (329°F)

Note: The above analytical data are not specifications.

	<u>Typical Treat Levels</u>
<b>APPLICATIONS:</b> Rust Preventive Fluids	1.00% - 15.0%
Circulating and Turbine Oils	0.05% - 1.0%
Compressor Oils	0.10% - 0.5%
Hydraulic and Paper Machine Oils	0.05% - 0.5%
Instrument Oils	0.30% - 2.0%
Greases	0.50% - 3.0%

**NA-SUL 611** is a high molecular weight basic barium sulfonate which provides improved oxidation stability to formulated lubricants due to its reserve alkalinity. It is used in petroleum and synthetic lubricating oils, greases and rust preventive fluids. **NA-SUL 611**, due to its chemistry, is particularly effective as an additive in polyglycol/ester based compressor lubricants. It is also useful for formulating turbine oils, hydraulic oils, paper machine lubricants, instrument oils and circulating oils. It has good acid neutralizing and deactivating properties. As a result of its alkalinity, **NA-SUL 611** works as an HCl scavenger when used in combination with chlorinated paraffins to avoid rusting of newly machined metal parts.

**ADVANTAGES:**

- \* **Excellent rust inhibitor**
- \* **Outstanding demulsibility**
- \* **Protection against acid atmosphere**
- \* **Acid neutralizing and deactivating properties**

(see reverse side)

# NA-SUL<sup>®</sup> 611

**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:** 480 lbs (218 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: 46°C (115°F)

**SHELF LIFE:** Best if used within 3 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-SUL 611**.

**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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