

# Product Data Sheet

## NA-SUL<sup>®</sup> 1101 (Formerly KX1101)



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**NA-SUL 1101** is a high performance ashless corrosion inhibitor specifically designed for aluminum and zinc alloys. It is soluble in most oils and polyalphaolefins (PAO). It is also very easily emulsified. **Due to the acid value of NA-SUL 1101, contamination with alkaline cleaners, metalworking fluids, or other alkaline process chemicals may result in the formulation of gels or other unwanted by-products. Compatibility tests should be carried out in order to identify any negative interactions.**

### CHEMICAL

**COMPOSITION:** Proprietary mixture of ammonium dinonylnaphthalenesulfonate and carboxylate derivative in light mineral oil.

**APPEARANCE:** Clear brown moderate viscosity liquid.

### TYPICAL

<b>PROPERTIES:</b>	Ashless	
	Acid Number (ASTM D 4739)	125 mg KOH/g
	Viscosity @ 100°C (ASTM D 445, DIN 51550)	35 mm <sup>2</sup> /s (cSt)
	Density @ 25°C (ASTM D 4052)	0.96 g/ml
	Weight Per Gallon @ 25°C	8.0 lbs
	Flash Point, COC (ASTM D 92, DIN 51376)	160°C (320°F)
	Moisture Content (ASTM E 1064)	< 0.1%

Note: The above analytical data are not specifications.

	<u>Typical Treat Levels</u>
<b>APPLICATIONS:</b> Corrosion Inhibitor (Aluminum, Zinc Alloys)	1.00% - 15.0%
Circulating Oils	0.05% - 1.0%
Metalworking Fluids (end use)	0.10% - 1.0%

**NA-SUL 1101** is a highly effective corrosion inhibitor for aluminum and zinc alloys. It is soluble in a wide variety of petroleum and synthetic lubricants. It is also very easily emulsified, producing stable emulsions at a pH as low as 8. Whether in water systems or oil systems, **NA-SUL 1101** provides excellent corrosion protection for aluminum and zinc alloys. Emulsions of **NA-SUL 1101** do not blacken aluminum test pieces when submerged and kept at 85°C for over 16 hours.

**ADVANTAGES:**

- \* **Excellent corrosion inhibitor for aluminum and zinc alloys**
- \* **Ashless**
- \* **Free flowing liquid, no melting required**

(see reverse side)

**NA-SUL<sup>®</sup> 1101**  
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- \* **Low odor, does not contain petroleum oxidates**
- \* **Excellent solubility in highly paraffinic base oils and PAO**
- \* **Can be emulsified at moderate pH**

**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. Emulsifiable in water. It is recommended to verify the solubility in the base oils used and the compatibility with other additives.

**STANDARD PACKAGING:** 420 lbs (190 kg) closed head drum.

**STORAGE CONDITIONS:** Store in a cool dry place away from any direct sources 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 Safety Data Sheet (SDS) for **NA-SUL 1101**.

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

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

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