Product Data Sheet

NA-SUL® CA-HT3

SAMPLE REQUEST

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

NA-SUL CA-HT3 is a high performance rust inhibitor with outstanding high temperature stability and good demulsibility. Contamination with large amounts of water should be avoided[1] (e.g. rust preventive dewatering fluids).

CHEMICAL COMPOSITION: Calcium dinonylnaphthalenesulfonate/carboxylate in light mineral oil.

APPEARANCE: Clear brown viscous liquid.

TYPICAL PROPERTIES:

Calcium Content	2.5%
Viscosity @ 40ºC (ASTM D 445, DIN 51 550)	1335 mm^2/s (cSt)
Viscosity @ 100ºC (ASTM D 445, DIN 51 550)	50 mm^2/s (cSt)
Density @ 15.6ºC (ASTM D 4052)	0.98 g/ml
Weight Per Gallon @ 25ºC	8.2 lbs
Flash Point, COC (ASTM D 92, DIN 51 376)	165ºC (329ºF)

Note: The above analytical data are not specifications.

APPLICATIONS:

	Typical Treat Levels
Rust Preventive Fluids	1.00% - 15.0%
Hydraulic Fluids	0.05% - 0.5%
Circulating Oils	0.05% - 1.0%
Paper Machine Oils	0.25% - 1.0%
Greases	0.50% - 3.0%
Industrial and Automotive Gear Oils	0.10% - 1.0%

NA-SUL CA-HT3 is an excellent rust inhibitor used in a variety of petroleum and synthetic lubricants. **NA-SUL CA-HT3** is highly recommended for applications where barium containing additives are not desired and generally it outperforms barium sulfonates in rust preventive formulations. It also exhibits good high temperature stability. **NA-SUL CA-HT3** is ideally suited for formulating hydraulic oils, paper machine oils, circulating oils and gear oils where good anticorrosion and thermal stability as well as outstanding demulsification properties are required.

ADVANTAGES:

- *** Excellent rust inhibitor**
- *** Very good demulsibility**
- *** Excellent thermal and oxidative stability**
- *** Easy handling, no melting required**
- *** Low odor, no characteristic petroleum oxidate odor**
- *** Excellent solubility in highly paraffinic base stocks**

(see reverse side)

NA-SUL® CA-HT3

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: Store in a cool, dry place away from any direct source of heat and moisture. Maximum recommended storage temperature: 46ºC (115ºF)

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 CA-HT3**.

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

NA-SUL CA-HT3 has an acid value, which can result in the formation of gels or other unwanted by-products when contaminated with alkaline cleaners, metalworking fluids, or other alkaline process chemicals. If contaminated with significant amounts of water, a film or gel can gradually develop at the interface between the organic layer containing **NA-SUL CA-HT3** and the aqueous layer. If testing shows incompatibility with alkaline chemicals that are likely to contaminate **NA-SUL CA-HT3** solutions or if significant, prolonged water contact is probable, **NA-SUL CA-1089** should be considered as the rust preventive additive in place of **NA-SUL CA-HT3**.

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.
Science Park 402,
1098 XH Amsterdam
The Netherlands
Tel: +31-20-723-1970
E-mail: info@kingintl.nl

v:\lad\Technical Literature\CurntTDS\NASUL\CA-HT3_07
Revision date: 14 AUG 2015