NA-SUL 1019A is a water-soluble rust and corrosion inhibitor that provides excellent protection for steel, galvanized steel and aluminum.

**CHEMICAL COMPOSITION:** Preparation of dinonylnaphthalenesulfonic acid, organic acid complex and an alkanolamine.

**APPEARANCE:** Clear amber liquid.

**TYPICAL PROPERTIES:**
- Viscosity @ 40ºC (ASTM D 445, DIN 51 550) 350 mm²/s (cSt)
- Density @ 15.6ºC (ASTM D 4052) 1.02 g/ml
- Weight Per Gallon @ 25ºC 8.5 lbs
- Flash Point, CC (ASTM D 3828, ISO 15 23) 88ºC (190ºF)

Note: The above analytical data are not specifications.

**APPLICATIONS:** NA-SUL 1019A is a water-soluble rust and corrosion inhibitor concentrate for protecting steel and aluminum parts during storage. Solutions of NA-SUL 1019A are ideal for coating metal parts by dipping. Parts dry in about 15 minutes, leaving a thin, almost dry, hydrophobic film on the metal surface that provides excellent protection even in very humid conditions. The film can be easily removed with alkaline cleaners. Treat levels of 1.0%-10.0% are recommended depending on the applications and requirements.

**ADVANTAGES:**
- Water soluble
- Fast drying
- Thin, dry film
- Excellent hard water tolerance
- Film can be removed easily with alkaline-type cleaners
- Water solutions maintain clarity

(see next page)
BLENDING INSTRUCTIONS: NA-SUL 1019A can be cut back with water to any desired concentration. It is soluble in warm or cold water. The concentrate has excellent storage stability. Dilutions maintain clarity and stability for extended periods of time, even in hard water.

To achieve foam control of the formulated water-based rust preventive fluid, it is recommended to use Foamban® MS-525 (Münzing Inc. Bloomfield, NJ.) Add the antifoam at a concentration of 0.1% of the NA-SUL 1019A concentration in the solution. A typical formulation based on 1000 g could be: 900 g water, 99.9 g NA-SUL 1019A and 0.1 g Foamban MS-525.

SOLUBILITY: Soluble in water in all proportions. The solutions are clear.

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 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 Safety Data Sheet (SDS) for NA-SUL 1019A.

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.

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 Tel: +31-20-723-1970 E-mail: info@kingintl.nl

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