

# TECHNICAL BULLETIN

Effective Jun. 2018

PRODUCT DATA: #207
FLUID FILM <sup>®</sup> AS (AEROSOL) &
NAS (NON-AEROSOL PUMP)

NATIONAL STOCK NUMBER

11 3/4 OZ ,12/CTN AEROSOL SPRAY: 8030-01-387-1131 12 OZ, 12/CTN NON-AEROSOL: 8030-01-381-6357 1 GAL, 4/CTN NON-AEROSOL: 8030-01-386-3871 5 GAL PAIL NON-AEROSOL: 8030-01-387-1070

FLUID FILM® NAS when combined with propellant in a pressurized aerosol can is designated FLUID FILM® AS.

**FLUID FILM® AS** & **NAS** are **PENETRANTS** and **LUBRICANTS** also used for **CORROSION PREVENTION**. They are non-toxic, long lasting, thixotropic liquids that have been used for over fifty (50) years in the highly corrosive marine environment of ships and offshore drilling rigs. More recently they have been introduced and successfully utilized in the aerospace, aircraft and automobile industries as well as for home maintenance. Facilities where they are used include the following: Government facilities, commercial fishing concerns, gas companies, agriculture, salt plants, municipal plants, power plants, manufacturing plants and pulp and paper mills.

**FLUID FILM® AS & NAS** are formulated from specially processed wool-wax, highly refined petroleum oils and selected agents to provide corrosion control, penetration, metal wetting and water displacement. These long lasting products contain no solvents, will not dry out and will penetrate to the base of all metals, providing corrosion protection from both natural and industrial atmospheres. Heavily corroded and/or frozen parts such as nuts, bolts, shafts, etc. that would normally be damaged during maintenance, can be salvaged by applying **FLUID FILM® AS** or **NAS**.

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NOTE: <u>Environmentally friendlier:</u>

AS (Less aerosol propellant) solvent-free and non-toxic.

NAS Solvent-free and non-toxic. Container is reuseable and recycleable.

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#### **TYPICAL PROPERTIES**

Unless designated otherwise, the following data refers to **FLUID FILM® NAS** or **FLUID FILM® AS** after the propellant has evaporated away following spray application.

**APPEARANCE:** 

Clear, straw colored liquid.

**VISCOSITY:** 

Brookfield HBF, 70°F #2 Spindle at 2 RPM 10.5 - 13.5 Reading (16,800 - 21,600 cps)

FLASH POINT, BULK

405°F minimum.

**LIQUID:** (ASTM-92) Cleveland Open Cup

NON-VOLATIVE:

89% minimum (3 hours @ 220°F)

SPECIFIC

Less than 10<sup>-9</sup> mho/cm @ 1 Hz.

**CONDUCTIVITY:** @ ± 158°F 70 hours

**SPECIFIC GRAVITY:** 

0.875 - 0.885 (less propellant)

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**ASTM D-471** 

**EFFECT ON RUBBER:** 

None on neoprene and buna-n. Care should be taken around non oil-resistant

rubber goods. May cause swelling.

**EFFECT ON PAINT:** 

None on most painted surfaces.

**EFFECT ON ALUMINUM:** 

No pitting.

**EXTREME PRESSURE:** 

Fail load - 15 pounds.

ASTM D-2782 Timken Method

WEAR PREVENTION - CHARACTERISTICS:

40 Kg., 1200 RPM for 1 hour @ 167°F. Results: Scar diameter of 0.49mm.

ASTM D-2266 Four Ball Method

**PAINTABILITY:** 

Contain no silicones. It is recommended that surfaces treated with FLUID FILM® AS or NAS be washed with hot water and mild detergent or any commercial degreaser before painting.

CORROSION PROTECTION:

ASTM D-1735 Method for Water Fog Testing Passes 50 days.

ASTM D-1748 Humidity Cabinet Passes 30 days.

MIL-C-16173

Corrosion Requirement

Grade 2 - Soft Films: Passes 5% Salt Fog for 1298 hours.

WATER REPLACEMENT: MIL-C-23411, Paragraph 3.6

Displaces water from all metal surfaces.

TOXICITY:

Non-toxic, LD-50 greater than 3 grams per kilogram. Non-irritating skin response. Very slight irritation to the eyes. (Toxicity tests performed according to standard methods by an independent laboratory).

**WARNING:** 

AS: Extremely flammable. Contents under pressure. Do not puncture, incinerate or store above 120°F. Keep from open flame.

NAS: Combustible. Do not incinerate.

SPRAY NOZZLE CLEANING:

Turn can upside down, point in a safe direction and spray until only propellant escapes. If spray button becomes clogged during use, pull it from the can and clean it with a fine wire or needle. Replace the button with a gentle twisting motion, keeping it pointed in a safe direction. Do not stick pins or other objects into nozzle tube.

Keep out of reach of children.

This document is subject to revision without notice.

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# **AUTOMOBILE**

- 1. All nuts, bolts, and studs.
- 2. Mechanical parts such as:
  - a. Brake levers
  - b. Brake cable (emergency), speedometer cable.



- Hood and trunk mechanisms.
- d. Door hinges, opening and locking mechanisms.
- e. Window mechanisms.

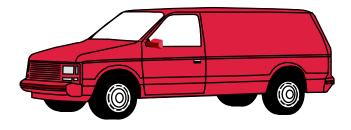
- 3. Seat moving tracks and locks.
- 4. Tools.
- 5. Inside hub caps.
- 6. Wheel lugs.
- 7. Preservation inside doors.
- 8. Uncovered springs.
- 9. Battery post and connectors.

EXCELLENT VEHICLE UNDERCOATING CORROSION PREVENTATIVE

Fluid Film® may soften some vehicle undercoatings. Check with dealer/vehicle manufacturer as to compatibility.

## **TRUCKS**

- 1. Trailer attachments.
- 2. Truck bed bolts.
- 3. Blocks, turnbuckles.
- 4. Wire tie-downs



### MARINE

- 1. Valves, stems, valve bonnets.
- 2. Port hole doggings and hinges.
- 3. Water tight door hinges and mechanism
- 4. Elevator and dumb waiter guides.
- 5. Telegraph mechanism.
- 6. Furniture drawers and glides.
- 7. Signal light mechanism.
- 8. Chain falls, come-alongs, push and pull jacks.
- 9. Wire rope.
- 10. Machined surfaces, lathes, drills, shapers.
- 11. Nuts, bolts, studs, tools.
- 12. Exposed gear teeth.
- 13. Turnbuckles.
- 14. Clapper valve mechanism.
- 15. Piping and pipe joints.
- 16. Hatch doggings.
- 17. Throttle control mechanism.
- 18. Bright work (brass).

- 19. Winch brake mechanism.
- 20. Winch control mechanism.
- 21. Generator cooler heads.
- 22. Pelican hooks and tunbuckles, anchor chains.
- 23. Rudder machined surfaces.
- 24. Inside switch box doors.
- 25. Life boat falls.
- 26. Emergency steering blocks and sheaves.
- 27. Life line turnbuckles.
- 28. Forced draft blower mechanisms.
- 29. All blocks and sheaves.
- 30. Water tight deck drain enclosures.
- 31. All metal exposed to atmoshphere or salt spray.
- 32. Battery posts and connectors.

