



Product Description

Formula-8 is engineered into a shear-sensitive thixotropic paste that wets into, and seals threaded joints with strings of a paste thread sealant when torqued. Formula-8 is engineered to seal over the entire thread length for the life of the joint in liquid, gas, and vacuum service.

NSN 8030-01-527-7193

Features

- Aqueous-based formulation
- Water soluble
- Stable from cryogenic temperatures to 287°C (+550°F)
- Stable in pressures up to 10,000 psi and in vacuums 10⁻³ Torr
- Chemically inert
- Anti-galling, anti-corrosive, anti-seize
- Silicone-free
- Non-migrating
- Non-toxic, solvent-free, non-hazardous, odorless, non-flammable, VOC-free



Benefits

- Prevents pipe damage on stainless steel, steel, and plastic
- Insidiously wets to threads, and once dried down, will not be dislodged
- Will not cold flow over time
- Will not jam check valves, pumps, or plug orifices
- Seals all sizes and types of threaded joints
- Permits sealing or disassembly at relatively low torques
- Engineered to replace thread-sealing tapes
- Eliminates challenges associated with tape

Applications

- Natural gas applications
- Cryogenic applications
- Welding and industrial gases
- Gasoline, diesel, kerosene fuel systems
- Hydraulic systems
- Vacuum service to 10⁻³ Torr
- Chlorine and powerful oxidizers
- Oxygen systems
- Valves in bottled gases
- Instruments and fine threads
- Machine and engine sensors
- Ammonia and freon refrigeration service
- Medical
- Wafer fab
- Offshore drilling rigs
- Coal power plants
- Aerospace
- Chemical processing
- Medical

Health and Safety

Formula-8 is a very safe, solvent-free product. Not classified as hazardous according to OSHA 29 CFR 1910.1200 and WHMIS. Not hazardous under the consumer product safety regulations. See the Safety Data Sheet for additional information.





Storage, Shipping and Handling

Do not store at temperatures below 0°C (32°F). *Formula-8 is only freeze-sensitive in the paste state.* Always keep the unused product in its original container, and store it upside down, tightly closed. Store in a cool, dry ventilated area. Avoid freezing and excessive heat during storage and shipping. DOT-classified as non-hazardous, can be shipped by air with no shipping restrictions. See the Safety Data Sheet for additional information.

Specifications and Approvals

- NASA-tested (ASTM G72-82 and ASTM G86)
- NSF-approved for food processing areas
- BAM-tested
- WHA high-pressure oxygen tested
- NSN 8030-01-527-7193



Test	Rating
Appearance	Dispensed: paste Dried: hard
Texture	Paste: smooth, free of lumps
NLGI	Paste: paste: 2 Dried: hard: na
Flammability Flash Point	Non-flammable None
VOC – EPA test 24	Paste: 1.1% Dried: 0.0 %
Color/Odor	White/Odorless
Dropping Point	Dried: none
Temperature Range	Cryogenics to +287°C (+550°F)
NSF Approved	S2

Test	Rating
Vapor Pressure	Dried: none
Density	Dried: 1.2 g/ml
ASTM G72 Oxygen Test AIT High Pressure 6000 psi held at constant steady pressure	Dried: 6000 psi (414 bar) AIT: 173 C
ASTM G72 Oxygen Test AIT Standard Test Pressure 1500 psi	Dried: 1500 psi (103 bar) AIT: 180 C
ASTM G86 Oxygen Impact test 3015 psi & 72 ft-lbs (98 J) impact	Dried: Samples: 20 Number Reactions: 0
BAM oxygen gaseous tested at 60c	Paste: 2320 psi (160 bar) Dried: 435 psi (30 bar)
BAM oxygen liquid	Paste: No limitations Dried: No limitations
Solubility in Sulfuric Acid	Dried: none, no effect
Praxair GS-38	Approved

How to Apply

- Clean the male and female threads of any dirt or oil.
- Using a brass or stainless-steel wire brush clean off any material on the threads.
- Wipe down the threads using a lint-free cloth and acetone.
- Starting one to two threads back from the end of the male fitting, use your finger to apply Formula-8 and liberally fill the threads.
- Fit and torque the male and female pieces together. Hand tighten or use standard pipe tools to torque.
- Wipe off excess sealant.
- Let dry down 12 hours before returning to service.
- Be careful not to over-tighten fittings, especially plastic, pvc, or cast iron, as the fittings may crack.





On threaded joints 3/4" or larger, Fluoramics suggests using Formula-8 and LOX-8 Thread Seal Tape:

- Clean the male and female threads of any dirt or oil.
- Starting two threads back from the end of the male fitting, apply two wraps of LOX-8 Thread Seal Tape in the direction of thread rotation, maintaining tension on the tape while wrapping.
- Apply the thread sealant over the tape as instructed above.

Packaging

Part No.	Size	Container	Case Quantity
8900003	15 g (Net Wt. 0.52 oz)	Tube	12
8900006	100 g (Net Wt. 3.52 oz)	Tube	24
8900008	650 g (Net Wt. 22.9 oz)	Jar	12



FORMULA-8® IS COMPATIBLE WITH THESE AND OTHER SIMILAR GASES AND AGGRESSIVE CHEMICALS:

Acetylene	Helium	Perchlorate
Aluminum Chloride	Hydraulic Oils	Phosphoric Acid
Ammonium Nitrate	Hydriodic Acid	Potassium
Ammonium Perchlorate	Hydrogen	Potassium Persulfate
Antimony Trichloride	Hydrogen Bromide	Propane
Bromine	Hydrogen Peroxide	Propylene Oxide
Calcium Hypochlorite	Hydrogen Sulfide	Silane
Carbon Dioxide	Iodine	Silicone Tetrachloride
Chlorosilanes	Kerosene	Sodium Hypochlorite
Chlorosulfonic Acid	Muriatic Acid	Sodium Perchlorate
Chromic Acid	Nitric Acid	Sulfur Dioxide
Diesel Fuel	Nitrogen Oxides	Sulfur Trioxide
Ethylene	Oleum	Sulfuric Acid
Fluorine	Oxygen	Titanium Tetrachloride
Gasoline		

FORMULA-8® IS COMPATIBLE WITH THE FOLLOWING PIPES AND THREADS:

All plastics	Glass – ceramics	PTFE type plastics
Aluminum	Iron	Rigid PVC/CPVC
Brass	Kynar PVDF	Silicone Tubing
Bronze	Lead	Stainless steel
Cured epoxies	Neoprene	Steel
EPDM	Polycarbonates	Urethanes
Ethylene propylene rubber	Polyamides	Viton™ formulated plastic
Fluoro-silicones	Polyvinyl alcohol	Zinc

