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Chemically inert lubricants and paste sealants are required when handling corrosive or oxidizing substances. The MPT Industries line of Oxygen Compatible (OC) products consists of three different PTFE particle formulations. They provide leak-tight sealing and lubrication solutions for any application, function or procedure where service failure is not an option.

From cylinder valves to pipeline/manifold/regulator connections and fittings, high vacuum requirements to O-rings, these German Federal Institute for Materials Testing (BAM) certified products are particularly suitable for critical and demanding applications. They are designed as superior quality lubricants and paste sealants for the compressed/liquefied gas, cryogenic and vacuum industries.

OC Three PTFE Paste joint and thread sealer is an aqueous based PTFE particle formulation. It is a homogeneous white paste that is optimal for instrumentation system fine threads, cylinder valves and oxygen distribution systems. OC Three seals more effectively and safely than PTFE tape. It is also easy to apply from its 4 ounce squeeze tube with extended nipple and resealable cap or 22.9 oz. resealable jar. Consider these optimal properties:

Water Soluble / Anti-galling / Odorless
Anti-seize / Chemically Inert / Non-toxic
Non-flammable / Non-migrating / Non-corrosive

OC Five Paste and OC Seven Grease are both formulations of Halocarbon Oil and PTFE particles. These off-white homogenous high performance paste and grease consistencies provide safe, leak-tight seals for cryogenic, liquid oxygen, liquid nitrogen and high vacuum (low vapor pressure 10-7 Torr/mmHg) specifications. Their properties remain unaltered over wide temperature extremes which makes them ideal for building/rebuilding/maintaining gas regulators, valves, piping systems, manifolds, pumps, O-rings, etc. Both products are packaged in convenient 2 oz. and 16 oz. resealable jars, as well as 7 oz. plungers. OC Five and OC Seven provide these unsurpassed properties:

Waterproof / Dielectric / Anti-galling / Anti-seize
Non-corrosive / Non-flammable / Non-migrating
Non-toxic / Chemically Inert / Odorless

Silicone should never be used in an oxygen rich environment. However, for non-oxygen applications, **MPT Silicone/PTFE High Performance Lubricant/Sealant** provides leak-tight sealing and lubrication for a wide variety of applications such as a thread sealant for high pressure gases (not oxygen or fluorine), most acids (except alkali and HF), and water and steam lines. Use MPT Silicone/PTFE as a vacuum grease to lubricate O-rings or seal threads in vacuum systems. It also can be used to lubricate water treatment systems, high vapor pressure systems and mechanicals. MPT Silicone/PTFE provides these optimal properties: **Waterproof and Chemically Resistant; Non-Toxic; Exceptional Physical and Thermal Stability; High Dielectric Strength; Excellent Low Torque Characteristics; Extremely High Film Strength; Wide Temperature Range.**

Phone us at 973-989-9220 or 800-351-0605 for ordering information and a distributor near you. Visit us on the web at www.mptindustries.com for BAM certification and Material Safety Data Sheets.

Product Data Sheet

Oxygen Compatible OC Three PTFE Paste Joint and Thread Sealer



Solutions for critical and demanding applications where no flammability, compatibility with oxygen and resistance to aggressive chemicals are essential.

OC Three PTFE Paste Joint and Thread Sealer is an aqueous based PTFE formulation. It is a homogenous white paste that penetrates thread convolutions more effectively, and more safely, than PTFE tape. Tested, approved and certified by BAM for gaseous and liquid oxygen service. Use in extreme temperatures (-400° F to +500° F) and Mid Vacuum specifications to 10⁻³ Torr. **OC Three** is especially capable for sealing oxygen and acetylene cylinder valves. Easy to apply from its 4 oz. (113.4 gram) squeeze tube with extended nipple and resealing cap. A superior PTFE thread sealant paste that contains these optimal properties:

Water Soluble / Anti-Galling / Anti-Corrosive
Anti-Seize / Chemically Inert / Non-Toxic
Non-Flammable / Non-Migrating / Odorless

OC Three is compatible with many aggressive chemicals including:

Acetylene	Helium	Potassium perchlorate
Aluminum chloride	Hydrogen	Potassium persulfate
Ammonium nitrate	Hydrogen bromide	Propylene oxide
Ammonium perchlorate	Hydrogen peroxide (<i>all concentrations</i>)	Silane
Antimony trichloride	Hydrogen sulfide	Silicone tetrachloride
Bromine	Hydriodic acid	Sodium hypochlorite
Calcium hypochlorite	Iodine	Sodium perchlorate
Carbon dioxide	Muriatic acid	Sulfur dioxide
Chlorosilanes	Nitric acid	Sulfur trioxide
Chlorosulfonic acid	Nitrogen oxides	Sulfuric acid
Chromic acid	Oleum	Titanium tetrachloride
Ethylene	Oxygen (<i>liquid & gaseous</i>)	
Fluorine (<i>gaseous</i>)	Phosphoric acid	

9002 84 0	Polytetrafluoroethylene
13463 67 7	Titanium dioxide
9003 01 4	Carboxy vinyl polymer
7732185	H ₂ O (water)

MPT[®]

INDUSTRIES

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Product Data Sheet

Oxygen Compatible OC Five Paste and OC Seven Grease



Solutions for critical and demanding applications where no flammability, compatibility with oxygen and resistance to aggressive chemicals are essential.

OC Five Paste and **OC Seven Grease** are blended formulations consisting of PTFE particles and Halocarbon® oil, producing a superior sealant that is chemically inert and environmentally safe. Both products have been tested and certified by BAM for gaseous and liquid oxygen service.

OC Five and **OC Seven** can be used in High Vacuum 10^{-7} Torr applications where exposure to corrosive gases is probable. They are superior lubricants which provide leak tight sealing in a wide range of vacuum requirements. These off-white homogenous grease and paste formulations provide unique sealing and lubricating solutions, as their properties remain unaltered over wide temperature ranges – from cryogenic through thermally stable to +450°F. Both are non-flammable, non-migrating, non-toxic, odorless and waterproof as well as anti-corrosive, anti-galling, anti-seize, dielectric and lubricating.

Cost effective for liquid oxygen, liquid nitrogen, cryogenic and vacuum applications to prevent and reduce component and equipment failures, maintenance or downtime.

Available in 2 oz. (57 gram) and 16 oz. (454 gram) jars with resealable lid for ease of use and storage.

Not recommended for aluminum against aluminum applications. Do not use with concentrated alkalis, fluorine (*liquid*) or chlorine trifluoride (*liquid*).

OC Five Paste and **OC Seven Grease** are compatible with many aggressive chemicals including:

Acetylene	Chromic acid	Nitric acid
Ammonium hydroxide	Ethylene	Nitrogen trifluoride
Ammonium nitrate	Fluorine (<i>gaseous</i>)	Oleum
Ammonium perchlorate	Fuming nitric oxide	Oxygen (<i>liquid & gaseous</i>)
Antimony trichloride	Helium	Phosphoric acid
Boron trifluoride	Hydrogen	Potassium perchlorate
Bromine	Hydrogen bromide	Potassium persulfate
Bromine trifluoride (<i>gaseous</i>)	Hydrogen fluoride	Propylene oxide
Calcium hypochlorite	Hydrogen peroxide (<i>all concentrations</i>)	Silane
Carbon dioxide	Hydrogen sulfide	Silicone tetrachloride
Chlorine trifluoride (<i>gaseous</i>)	Hydriodic acid	Sodium
Chlorosilanes	Iodine	Sodium hydroxide (<i>all concentrations</i>)
Chlorosulfonic acid	Muriatic acid	Sulfur trioxide
		Sulfuric acid
		Titanium tetrachloride
		Uranium hexafluoride

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9002 83 9	Polychlorotrifluoroethylene
9002 84 0	Polytetrafluoroethylene
6861 1 44 9	Silicon dioxide aerogel

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MULTI-PURPOSE SILICONE / PTFE High-Performance Lubricant / Sealant

A synthetic lubricant/sealant designed to exceed the most demanding conditions, specifications and uses in aerospace, automotive, agricultural, chemical, industrial, offshore and vacuum applications.



A superior blend of dimethyl silicone and PTFE providing these outstanding benefits:

Extremely High Film Strength / Extremely Low Volatility / High Dielectric Strength / Waterproof and Chemically Resistant / Excellent Low Torque Characteristics / Non-toxic / Exceptional Physical and Thermal Stability / Wide Temperature Range

Physical Properties	Standards	Tests / Results
Evaporation Loss	ASTM D-972	22 hrs @100°C / .04%
Water Washout	ASTM D-1264	1 hr @38°C / .15%
Dielectric Strength	ASTM D-149	50% R.H. @50 mil gap / 21.36 kV average Breakdown voltage / 427 volts/mil
Dielectric Constant	ASTM D-150	@1,000 Hz / 2.596 @10,000 Hz / 2.592
Vapor Pressure	ASTM D-2879	Isoteniscope @21.11°C / 0.05 mm Hg
Mechanical Properties		
Penetration	ASTM D-217	Unworked, P(0), 1/10 mm / 260 Worked, 60 strokes / 259
Dropping Point	ASTM D-2265	>308°C
Low Temperature Torque	ASTM D-1478	@-40°C Starting Torque / 312 g-cm 10 Minute Running Torque / 176 g-cm 1 Hour Running Torque / 130 g-cm
Thermal Properties		
Max. Service Temp., Air	Recommended	600°F
Min. Service Temp., Air	Recommended	-50°F

Use **MPT Silicone/PTFE High-Performance Lubricant/Sealant** to extend lubrication intervals, provide longer equipment life, reduce labor time during maintenance activities and improve mechanical efficiencies. Packaged in convenient 8 oz. tube, 22 oz. cartridge and 2 oz. and 16 oz. jars. Please call for industrial bulk packaging.



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SATISFACTION GUARANTEED.

MPT Silicone/PTFE High-Performance Lubricant/Sealant offers a money back guarantee with proof of purchase (empty container and purchase receipt required). Visit us on the web at www.mptindustries.com for details.