ANTISEIZE COPPER SPRAY COPPER BASED ANTI-SEIZE SPARY

Product Description

ANTI-SEIZE COPPER SPRAY is a copper based anti- seize aerosol reinforced with graphite and molybdenum disulphide to further enhance its performance particularly in applications where conventional copper based anti-seize products may fail to perform.

ANTI-SEIZE COPPER SPRAY is designed for use on all static fasteners and mechanisms prone to seizure. This high-performance compound is ideal as an assembly and anti-seize lubricant in extreme adverse conditions where pick-up and seizure issues may be experienced.

ANTI-SEIZE COPPER SPRAY is particularly suited to extreme wet conditions even when submerged in sea water environments.

Applications

- Furnaces
- Docks / ports
- Offshore
- Engines
- Automotive
- Hinges
- Latches

Benefits

- Outstanding temperature range -50°C to
- +1100°C
- Non melting compound
- Prevents pick up and seizure of static threaded fasteners
- Lubricates, protects and eases dismantling
- Effective even in the most aggressive environments and is completely insoluble in water.
- Excellent corrosion protection
- Improves co-efficient of friction, see page 3 for details.

PETRELPLUS INC.
One World Center, Tower One, 9th Floor, Senapati Bapat Marg, Lower Parel, Mumbai-400013
mail-marketing@petrelplus.com, www.petrelplus.com
+91 93522 25457 +91 95098 25457

Technical Data

PROPERTIES	Values
Appearance (visual)	Silvery copper colored slightly greasy film
Base Type	Mineral oil
Thickener	Organically modified clay
Solvent	Hydrocarbon
Propellant	LPG (Hydrocarbon)
Solids	Copper, Graphite, MoS2, Aluminum
Solids Content in Applied Film	Approximately 40%
Temperature Range	-50°C to +1100°C
Water Solubility	Insoluble
Coefficient of Friction	circa 0.15
Approximate Coverage (0.1mm film thickness)	$4m^2$/400ml

Torque Settings of Fasteners

When a thread compound is applied to a fastener that will be torque tightened, the torque setting will require adjustment to achieve the correct tension in the fastener. Correct torque settings can be calculated using the methods below.

The following parameters were derived from the tension-torsion relationship measured on M12 x 50mm setscrews with 1.75mm thread pitch, full nut and Form A washers. Fasteners were degreased and a thin layer of thread compound applied in line with instructions on Page 1. Data are for fasteners at 90% of the yield stress.

PROPERTIES	Coefficient of Friction (μ)	K-Factor
8.8 Steel Plain Finish	0.104	0.14
8.8 Steel BZP	0.085	0.12
8.8 Steel Hot Dip Galvanized	0.104	0.14
304 Stainless Steel	0.112	0.15
Aluminum 6061	0.093	0.13

PETRELPLUS INC.
One World Center, Tower One, 9th Floor, Senapati Bapat Marg, Lower Parel, Mumbai-400013
mail-marketing@petrelplus.com, www.petrelplus.com
+91 93522 25457 +91 95098 25457

$$T = K \times F \times D$$

T=Torque

Applied (Nm)

F=Tension Generated in Fastener(N)
D=Nut Nominal Bolt diameter (m)
K=K-Factor

$$T = F \times \left[(0.159 \times P) + (0.577 \times d \times \mu) + (D_f \times \frac{\mu}{2})\right]$$

T = *Torque Applied (Nm)*
F = *Tension Generated in Fastener (N)*
P = *Thread Pitch (m)*
d = *Pitch Diameter (m)*
Df = *Nut Friction Diameter (m)*
μ = *Coefficient of Friction*

Many parameters affect the tension-torsion relationship of fasteners, including: Bolt geometry, surface finish, lubricant application method, joint material, torque application method, variation in fastener manufacture etc. Therefore, these parameters above are for guidance only, especially if a different material is used or if geometry is significantly different to M12. Any calculated values are a predictive tool and the final tension should be verified, especially in critical applications. These values do not constitute a specification.

Available Packs: 400 ML / 500 ML Aerosol packs.

Shelf Life – 36 Months from the Manufacturing month.

Due to continual product research and development, the information contained herein is subject to change without notification. Typical Properties may vary slightly. The Material Safety Data Sheet (MSDS) are available upon request through our sales office. All related specifications are meets or exceeds.

PETRELPLUS INC.
One World Center, Tower One, 9th Floor, Senapati Bapat Marg, Lower Parel, Mumbai-400013
mail-marketing@petrelplus.com, www.petrelplus.com
+91 93522 25457 +91 95098 25457

Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product **ANTISEIZE COPPER SPRAY**

Supplier **PETRELPLUS INC.**

One World Center, Tower One, 9th Floor, Senapati Bapat Marg, Lower Parel, Mumbai-400013, Maharashtra.
Call # +91 22 6216 7072
(Monday to Friday)
Cell # +91 93522 25457
marketing@petrelplus.com
www.petrelplus.com

2. COMPOSITION

No harmful substances. Petroleum base oils with graphite and molybdenum disulphide and high-performance additives.

3. HAZARDS INDENTIFICATION

FIRE	-Flammable at high temperature.
HEALTH	
Eye contact	-May cause mild irritation to the eyes upon direct contact.
Skin contact	-Prolonged contact may defat the skin or can cause dermatitis.
Inhalation	-hazards.
Ingestion	-Harmful if swallowed.

4. FIRST-AID MEASURES

Inhalation	-Remove person to fresh air. Seek medical help if discomfort persists.
Ingestion	-Do not induce vomiting. Seek medical support.
Skin Contact	-Immediately flush skin with plenty of water for at least 15 minutes.
Eye Contact	-Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally.

5. FIRE-FIGHTING METHODS

Extinguishing media	-Use dry chemical powder or carbon di – oxide or foam.
Special protective equipment	-Positive pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURE

Personal protection	- Adequate ventilation, gloves, goggles, overalls and boots.
Environmental precautions	- Avoid entry into water courses.
Clean up method	- Absorb on inert material.

7. STORAGE AND HANDLING

Handling	- Impervious gloves & eye protection ensure good ventilation. Keep away from source of ignition.
Storage	- Store in a cool & dry place.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Respiratory protection	- Not required under normal conditions.
Skin/hand protection	- Impervious gloves, overalls, and boots.
Eye protection	- Use Goggles

9. TYPICAL PROPERTIES

Color	- Dark Copper
Solid Lubricants	- Present
Operating Temperature, ^{0}C	- (-50 to 1100)
Thickener	- Organically modified clay

10. STABILITY AND REACTIVITY

Stability	- Stable
Conditions to avoid	- Excessive temperatures
Materials to avoid	- Strong oxidizers
Hazardous decomposition products	- Oxides of carbon and nitrogen

11. TOXICOLOGICAL INFORMATION

Skin contact	- Possible irritation
Eye contact	- Possible irritation
Inhalation	- Not applicable
Ingestion	- Irritation. May cause lung damage.
Long term effect	- Not known

12. ECOLOGICAL INFORMATION

Mobility	- Mobile
Degradation	- Low
Accumulation	-Not expected
Short- & Long-Term effect	- Water pollutant

13. DISPOSAL CONSIDERATIONS

Dispose off according to local and national regulations.

14. TRANSPORT INFOMRATION

CPL	- Not applicable
IMO	-Not applicable

15. REGULATORY INFORMATION

Symbol(s)	-Not applicable
Phrase(s)	- Not applicable
Phrase(s)	- Not applicable

16. OTHER INFORMATION: PRODUCT SAFETY

For safety reasons, it is IMPERATIVE that customer: -Ensure that all those within their control who use the products are supplied with all relevant information contained within the Material Safety Data Sheet and Technical Bulletin concerning the applications for which the product is designed and any instructions or warning.