



# ANTI SEIZE-GZ PASTE GRAPHITE AND ZIRCONIUM PASTE

### **Product Description**

ANTI-SEIZE-GZ Paste is a stable non-melting high temperature anti-seize paste formulated with solid lubricants such as Graphite and Zirconium dioxide to protect and lubricate.

It is used for bolted joints and is free from intentional lead, nickel, sulfur, chlorine or fluorine.

## Applications

This solid lubricant paste is used for bolted joints. It is suitable for screws, nuts and bolts subjected to very high temperature that are made of heat resistant steels. It is also recommended for use where applications prohibit the presence of copper and nickel especially where resistance to corrosive acidic and caustic solutions is required. ANTI-SEIZE-GZ paste has low seepage, so it can be used in places wherein cleanliness is required.

### **Benefits**

- ANTI-SEIZE-GZ paste is recommended for stainless steel applications at high temperature and performs well on similar and dissimilar metals.
- It is impervious to water and offers protection from steam acids, caustic and harsh chemicals.
- Good protection against rust and corrosion.
- Prevention against seizing, galling, pitting, galvanic action and thread distortion.
- Allows screws to be removed easily, even after extended periods of use at high temperatures.
- Excellent load-carrying capacity and seize protection.
- ANTI-SEIZE-GZ paste is shows excellent compatible with high temperatures.



# **Typical Properties**

| PROPERTIES  | TEST METHOD |                                |
|---|-------------|--------------------------------|
| Appearance  | Visual      | Grey Black                     |
| Solid Lubricants  |             | Graphite and Zirconium dioxide |
| Base Oil  |             | Mineral                        |
| Unworked Penetration  | ASTM D217   | 280 to 310                     |
| Density @ 20 °C, g/cm <sup>3</sup>  | ASTM 1475   | 1.21                           |
| Base Oil Viscosity<br>@ 40 °C   | ASTM D445   | 1000                           |
| Dropping point, <sup>o</sup> C  | ASTM D566   | None                           |
| Water Wash Out, %   | ASTM D 1246 | 0.7                            |
| Four ball weld load (1,450 rpm 1 minute), N   | ASTM D 2509 | 5,500                          |
| Four ball wear scar(1,450 rpm, 800 N, 1<br>hour), N   | ASTM 2266   | 1.50                           |
| Copper Corrosion (24 hrs,100 °C)  | ASTM D4048  | 1a                             |
| Operating temperature, <sup>o</sup> C   |             | Up to 1400                     |
| Coefficient of friction in bolted connection,<br>M12 x 1.75, 8.8, blackened,                                |             |                                |
| μ thread μ head   |             | 0.11/0.11                      |
| Breakaway torque, M-12 bolts<br>21CrMoNiV57 1.7709, nuts and washers<br>21CrMo5 1.7258, 600°C for 21 hours: |             |                                |
| Tightening torque   |             | 49.4 Nm                        |
| Breakaway torque  |             | 120.9 Nm                       |
| Breakaway torque, Nimonic NiCr20TiAl<br>bolts, nuts and washers 2.4952, 850°C for 4<br>weeks:               |             |                                |
| Tightening torque   |             | 49.4 Nm                        |
| Breakaway torque  |             | 102.4 Nm                       |

#### Available Packs: 1, 5, 18, 50 and 180 Kg

Shelf Life: 36 Months from 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.



# **Material Safety Data Sheet**

#### 1. PRODUCT AND COMPANY IDENTIFICATION

Product Supplier ANTI-SEIZE-GZ Paste 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

Composition of Mineral oil, Solid lubricants like Graphite and Zirconium dioxide and proprietary additives. Free from intentional lead, nickel, sulfur, chlorine or fluorine.

#### 3. HAZARDS INDENTIFICATION

| -Flammable at high temperature.                                |
|--|
|  |
| -May cause mild irritation to the eyes upon direct contact.    |
| -Prolonged contact may defat the skin or can cause dermatitis. |
| -hazards.  |
| -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 | <ul> <li>Avoid entry into water courses.</li> </ul>          |
| 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 | <ul> <li>Not required under normal conditions.</li> </ul>   |
|------------------------|---|
| Skin/hand protection   | <ul> <li>Impervious gloves, overalls, and boots.</li> </ul> |
| Eye protection         | - Use Goggles   |

#### 9. TYPICAL PROPERTIES

| Color                  | - Gray black |
|------------------------|--------------|
| Penetration            | - 280-310    |
| Solid Lubricant        | - Present    |
| Copper Strip Corrosion | - 1a         |

#### **10. STABILITY AND REACTIVITY**

| Stability                        | - Stable  |
|----------------------------------|---|
| Conditions to avoid              | <ul> <li>Excessive temperatures</li> </ul>        |
| Materials to avoid               | <ul> <li>Strong oxidizers</li> </ul>              |
| Hazardous decomposition products | <ul> <li>Oxides of carbon and nitrogen</li> </ul> |

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#### 11. TOXICOLOGICAL INFORMATION

| Skin contact     | <ul> <li>Possible irritation</li> </ul> |
|------------------|---|
| 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.