

## Electrical Joint Compound



### Where is BX1-225 Used?

BICON BX1-225 should be used in all aluminium to aluminium and aluminium to copper joints. The contact surfaces of the elements to be joined should be thoroughly scratch brushed. The BICON BX1-225 should be liberally applied and any excess removed after securing the joint.

BICON BX1-225 should be used for all applications where insulation will not be applied to the joint, such as substations and switchgears.

## BX1-225

**BICON** Inhibitor compounds are designed to prevent galvanic corrosion and to enhance connections in electrical joints. They are especially effective when used on copper to aluminium and aluminium to aluminium connections.

In general BICON Inhibitor Compounds consist of a liquid base vehicle in which zinc particles are suspended. The base vehicle is a natural or synthetic grease which prevents water and other contaminants from influencing the connection and prevents the formation of surface oxides. The zinc particles help to break down existing oxide on the conducting surfaces when those surfaces are brought together under pressure. These particles form electrical bridges which improve the connection.

BICON BX1-225 has a natural (petroleum) grease base. It is recommended for all bare outdoor applications because of its excellent weathering properties. This petroleum base reacts chemically with rubber insulation and to a lesser degree with polyethylene insulation. The result is swelling and a reduction in the tensile characteristics of the insulation material. If reasonable care is taken to remove any excess from a connection, the resulting effect on insulating material is negligible.

Our experience shows that BICON BX1-225 Inhibitor Compound enhances the performance of electrical connections, particularly in aluminium to aluminium and aluminium to copper joints. The compounds, in bulk, are highly resistive, however, when applied as a thin film, with the aid of zinc particles, they decrease the contact resistance of a joint.

For material safety data sheet (see page two of this document)

### FREE Technical Advisory Service

Etech maintains a free technical advisory service.

Enquiries concerning this and all other products should be directed via the sales office:- +44(0) 1744 762 931

### The following are the chemical and physical properties of BICC-BX1:

Components: Aluminium Sterate Soap Mineral Oil. Zinc Dust.

Penetration: 290.

Dropping Point (min): 230°F (110°C).

Viscosity at 100°F (CS): 305

Flash Point (min): 375°F.

# BICON BX1-225 Electrical Joint Compound

## MATERIAL SAFETY DATA SHEET

### BX 1 INHIBITOR COMPOUND

U.N. No.                      Cast No.                      Index No.                      None                      None

#### Product Information

**By** Prysman Cables and Systems  
**Trade/Type** BX1 INHIBITOR COMPOUND/GREASE ("Penetrox")  
**Container** Plastic tube / tub  
**Uses** Corrosion inhibitor in electrical joints / connections.  
**Description** Grey paste

#### Information on ingredients

Petroleum Oil 40-60%  
 Metallic Zinc 40-60%

#### Hazards identification

Eyes: May cause irritation  
 Skin: May cause irritation after prolonged exposure  
 Ingestion: May cause diarrhea  
 Inhalation: Viscous nature may cause respiratory blockage if inhaled.

#### First aid procedures

Eyes: Flush with water until residual material is gone. Seek medical help if irritation persists.  
 Skin: Wash thoroughly with skin cleanser, followed by soap and water. Contaminated clothing should be dry cleans before re-use.  
 Ingestion: Wash out mouth immediately. Seek medical help.  
 Inhalation: Clear air passage. Seek medical help if respiratory difficulty persists.

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### BX 1 INHIBITOR COMPOUND

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#### Fire fighting measures

Extinguishing Media: Foam, dry powder, halon, carbon dioxide, sand, earth and water mist  
 Unsuitable Extinguishing Media: Water jet  
 Protective Equipment: Self contained breathing apparatus

#### Accidental release measures

Personal Precautions: Wear gloves and protective overalls  
 Environment: Do not allow entry into drains and water courses  
 Spillage: Scrape up bulk, wipe up remainder and cover surface with absorbent material (diatomaceous earth) to avoid slippage hazard.

#### Handling and Storage

Handling: No special requirements. Product has indefinite shelf life if stored in original packaging.  
 Storage: Do not store at elevated temperatures

#### Exposure controls

Respiratory Protection: None required  
 Hand Protection: Protective gloves  
 Eye Protection: Glasses if applied to moving parts  
 Body Protection: Overalls

#### Physical and Chemical properties

Physical Form: Semi-solid(paste)  
 Colour: Grey  
 Odour: Faint petroleum

#### Chemical Details

##### Chemical formula

**Molecular weight**

**Decomp prod**

**Refractive index**

**Melting Point**

**Vapour pressure**

**Saturation level**

Non Melting

<0.01kPa

**Ignition temp**

**'Explosive limits** 0.9%, 7%

**Decomp temp** Upper

**Viscosity in liquid**

**SG of liquid**

**Pour point** 1.78 kg/m3

**Boiling point** 316 C

**Evaporation point**

**Flash point** 221 C

**Ignition temp of dust**

**Solubility in water** Negligible

**Ph Hydroscopic** N

#### Stability and reactivity

Stability: Stable under normal conditions  
 Conditions to avoid: Powerful sources of ignition  
 Materials to avoid: Strong inorganic and organic acids and oxidising agents  
 Hazardous decomposition products: Smoke, airborne soot, hydrocarbons and oxides of carbon. Residue comprises soot and metal oxides.

#### Toxicological information

Irratancy (skin): Very mild

#### Ecological information

May generate oil fractions that could act as a marine pollutant in extreme cases (highly unlikely)

#### Disposal considerations

Do not incinerate. Disposal as per local regulations (approved landfill)

#### Transport information

Not classified as hazardous for transport

#### Regulatory information

CHIP: R22 : Harmful if swallowed