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POLITREN M TOOL OIL LUBRICANT

DESCRIPTION

Politren M is an oil lubricant; it is used to lubricate the forming tool (stamp) during hot forging of steels and copper alloys; it is a suspension of graphite in oil with additives.

PHYSICAL AND CHEMICAL PROPERTIES

Parameter	Politren M
Appearance	black liquid
Relative viscosity, sec, @40 °C, not less than	10
Mass fraction of ash, %, not more than	0.7
Flash point, °C, not less than	270
Density, g/cm ³ , @20°C, not less than	0.9
Warranted storage life, years	1
Package material	steel, polyethylene

PERFORMANCE CHARACTERISTICS

- when applied to a hot forging tool surface, forms a uniform lubricant layer with high anti-wear properties;
- reduces friction, resulting in reduced metal deformation force;
- separates the forging blank and tool surfaces from each other and ensures trouble-free removal of forging blanks;
- prevents the occurrence of defects to workpiece, facilitates good filling of the form, improves the quality of forging surfaces;
- reduces the rate of defective parts;
- increases the resistance of forging dies;
- reduces overheating of individual parts of forging dies;
- does not contain substances that cause metal corrosion;
- does not corrode tools or machine parts.

USE

- is supplied ready to use;
- it is a cost-effective lubricant for hot and semi-hot forging of steels and copper alloys;
- it is applied to the tool automatically, with a syringe, by spraying or using a brush.

SAFETY REQUIREMENTS, TOXICOLOGICAL PROPERTIES AND ENVIRONMENTAL PROTECTION

Politren M tool lubricant is a flammable liquid with a flash point of not less than 270⁰C in an open cup. In accordance with GOST 12.1.007-76 the product is classified in the lowest hazard class IV (slightly hazardous on exposure to the human body).

When using the product in hot metal processing, the main components polluting the air in the working area are: mineral oil aerosol (MPC is 5 mg/m³), graphite aerosol (MPC is 4 mg/m³) and carbonic oxide (CO) (MPC

20 mg/m³). Single exposure to Politren M does not have an irritant effect on skin; repeated exposure can cause a slight effect; in addition, the product produces a minor effect on mucous membranes of the eyes.

The premises where the product is used shall be equipped with continuously operating supply and exhaust mechanical ventilation. Within the production facilities the air shall be monitored subject to the shop-floor air monitoring schedule agreed with the local public health authorities.

The personnel involved in handling the lubricant product shall wear protective clothing and use personal protective equipment in accordance with standard industry norms.

Use clean cloth to remove the lubricant from hands or face; wash the remaining product away with warm soapy water.

In case of ingress of the lubricant onto working parts of the machinery, the floor of the machinery area shall be cleaned with rags, and the remaining product shall be washed away with soapy water.

Politren M tool lubricant is a water-insoluble oily liquid. Its maximum permissible concentration in water bodies (MPC_w) determined for oil is 0.4 mg/l.