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Industrial solutions
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BORTEX 63

MINERAL OIL BASED METAL WORKING FLUID

PRODUCT DESCRIPTION

It is multi-purpose, mineral oil based, conventional metal working fluid, which forms stable and milk emulsion with water. It is formulated with a well-balanced additive content which consist of high quality mineral base oils, strong emulsifiers and corrosion, foam and microorganism preventive chemicals. It has many areas of usage in the processing of various metals and metal alloys.

APPLICATION / USAGE

It is used for machining of iron, steel, cast iron, aluminum and non-ferrous metals and their alloys. It is used in the operations in which absence of extreme pressures and require lubrication properties. Also it can be used as mould release agent.

Normal machining	: % 5-9
Grinding	: % 3-5
Aluminum Grinding	: % 3-6
Mould Release Agent	: % 5-10

Concentration ranges mentioned above are valid in case of water with a Total Hardness of 5-20 °dH is used in the emulsion.

The emulsion should be prepared by adding BORTEX 63 on the water meeting the recommended water specifications and blending slowly, in an emulsion preparation tank if possible. It is recommended to use mechanical mixers for blending process. As unstable emulsions occur as a result, water should never be added on the product during preparation.

% Concentration value should be periodically controlled during usage and BORTEX 63 should be added to the system when necessary. It is imperative that the filtration and circulations systems work effectively in order to prolong the service life of the emulsion

ADVANTAGES / BENEFITS

• Its emulsion stability is high. If the emulsion is prepared with water that meets the recommended water properties, it does not decompose into phases.

• Due to its special additives, it provides effective protection against corrosion during the operation and short-term storage.

• When it is used with materials such as brass and copper, emulsion color does not turn into green.

• It has low foaming tendency even if it is used in high pressure systems.

• It provides long service life for the emulsion due to its resistance to microorganism production.

• It transports the undesirable oil (hydraulic, gear oils etc.) to the emulsion surface and helps these oils to be removed from the system.

• In case of usage at recommended concentration ranges, it does not cause any harm to the machining tool paint and/or tool sealing and closure apparatus. It provides cleanliness of the machining tools and pipelines.

• Since its pH value adjusted it does not cause sensitivity or harm on the skin.

• It does not contain Nitrite, Phenol and/or Chlorine compounds.

STORAGE

Protect from direct sunlight and rain. Store in the original closed drums and in covered areas. Storage temperature must be between (+5)-(+40)°C.

HEALTH AND SAFETY

This product is unlikely to present any significant health or safety hazard when properly used in the recommended application. Used or waste product should not be allowed to contaminate soil or water. Used or waste product should be disposed of in accordance with local regulations. For further guidance on product Health and Safety refer to the appropriate Material Safety Data Sheet.

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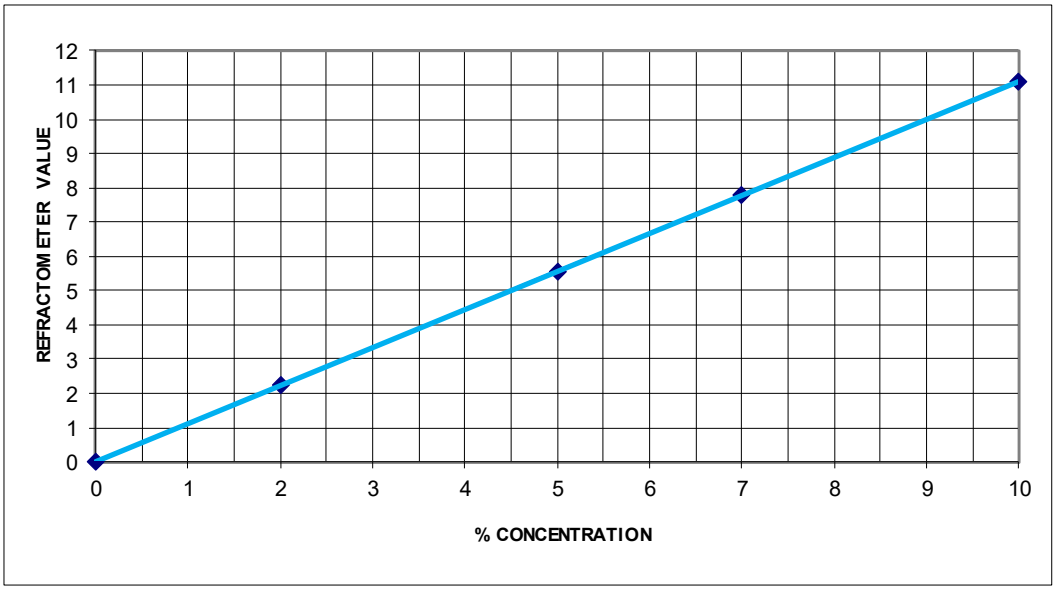
TECHNICAL PROPERTIES	TEST VALUES	TEST METHOD
Appearance	Brown, clear	-
Emulsion Appearance (%5)	Milky, beige	-
Density (20 °C, g/mL)	0,920	ASTM D 1298
pH (%5)	9,80	ASTM D 1287
Corrosion Test (10 °dH , %5, 2h)	0-0	DIN 51360/2
Refractometer Factor	0,9	Hand Refractometer

Concentration Control:

% Concentration	Refractometer Value
2	2,2
5	5,6
7	7,8
10	11,1



The data provided for the % concentration control is prepared according to the data obtained for the freshly prepared emulsion. As the utilization time of the emulsion and the undesired oil/contamination amount in the system increases, deviations from the data stated above should be taken into account.

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