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## **IDAZOX HB-20**

# TECHNICAL DATA SHEET TL 768/2016

Date of issue: 12.8.2016 Revision date: -

## **Product characteristics**

**IDAZOX HB-20** is a mixture of mineral oil, an anti-corrosion preparation and emulsifiers with bactericide additive.

#### Use

IDAZOX HB-20 is used as a metalworking fluid by machining and grinding of metals.

#### Features of a product

**IDAZOX HB-20** creates with water a perfect and very constant emulsion, it is partially bioresistant in combination with water, i.e. with increased resistance against microbial degradation and protection against atmospheric corrosion workpiece.

IDAZOX HB-20 must comply with these quality signs:

Quality sign	Value	Methodology of setting		
Density by 20 °C (kg.m <sup>-3</sup> )	890 to 950	CSN 65 0342		
pH of 4% emulsion	8.7 up to 9.7	PN-ZM 768/2016		
Stability of 4 % emulsion	meets with the prescribed test	PN-ZM 768/2016		
Corrosion test	negative	CSN 65 6256		

#### **Product processing**

Emulsion of **IDAZOX HB-20** is defined as cutting lubricant used by machining and grinding of metals. It has increased lubricating ability and expressive cooling effect. This agent does not influence the machining properties of the tools nor machined surfaces.

The recommended concentration for the most of applications is 3 up to 4 %, i.e. 3 up to 4 volume parts of **IDAZOX HB-20** on 97 up to 96 volume parts of water.

It is recommended using of water with medium hardness, in the range of about 1,249 up to 2,142 mmol/l (i.e. 7 up to 12 °N). Measured amount of **IDAZOX HB-20** slowly and under the intensive mixing flowed to the submitted water. The mixing time is defined with the perfect emulsified oil. By the prepared emulsion is necessary to check the value of pH.

#### Control and treatments during operation, exchange time

It is necessary to regularly check the pH of the emulsion (8 to 9.5), keep the concentration to the specified value. The concentration values **IDAZOX HB-20** in cutting fluid can be monitored by measuring the refractive index, as shown in the following table.

Concentration of IDAZOX HB-20	2,0	2,5	3,0	3,5	4,0	4,5	5,0
in demineralized water in %							
Refractive index 20 ° C	1,33	1,3366	1,3374	1,3384	1,3393	1,3400	1,3407
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Concentration dependence of **IDAZOX HB-20** is influenced on the values of the refractive index by the hardness of the used water. Therefore we recommend that you measure the concentration dependence of the samples of the water used directly by the processors of emulsion.

It is necessary to keep clean all workplace, to remove troubles in the possibility of leakage of lubricating oils from the machines into the emulsion, ensure that the emulsion was not contaminated with organic waste.

Before work starting to remove dirt from the surface of the emulsion, regularly clean the filter equipment.

The exchange time is obviously depends on the level of treating emulsions.

Exchanges is moving in the range of 3 to 6 months, with central systems characteristically longer.

## Packaging, storage

**IDAZOX HB-20** is delivered in 220 litre metal drums or in other containers that have been discussed in advance.

It is stored in closed containers at the places protected from direct climatic influences. Product must not be exposed to direct sunshine not even close to sources of heat. Recommended storing temperature is within +5 to +25 °C.

## **Warranty**

If the product is transported and stored according to the above mentioned conditions, the warranty is 6 months from the date of stock-out.

### **Note**

Data about the product characteristics and its manufacturing were acquired by laboratory measurements and application tests. This technical sheet can only give a legal advice without any obligation. The manufacturing of the product must be adjusted to the specific conditions.

