

Product Information

WATER-MISCIBLE METAL WORKING FLUIDS

UNIMET®

- A range of universal products for the broadest variety of machining applications.
- The UNIMET® range provides a combination of modern emulsifier systems, an extremely stable additive package, and a proven mineral based oil resulting in a stable and efficient emulsion for use in both stand alone and central systems.
- All UNIMET® cutting fluids are free of chlorine and nitrite and are also inhibited against nitrosamine formation.



UNIMET® AS 220 S

UNIMET® AS 220 S is a particularly efficient product that can be used for a large variety of machining applications and materials including steel, grey iron and some aluminium.

UNIMET® AS 220 S is a highly stable product and is not affected by tramp oil, solid dirt particles or increase in salt content. Due to these properties, an extended sump life can be achieved even in unfavourable environments. UNIMET® AS 220 S creates a very thin oil coating and makes the cleaning of work pieces easier.



Cooling • Lubricating • Removing Chips

APPLICATION AREA AND PROPERTIES:

- Suitable for the machining of many materials
- Can be used for all usual machining applications
- Its high washing and flushing action ensures cleaner machines and work pieces
- Good foaming characteristics with water hardness even below 5 °d
- Excellent protection against corrosion
- Outstanding skin compatibility

RECOMMENDED CONCENTRATION (DEPENDING ON PROCESS AND MATERIAL):

Grinding operations, light machining	Medium machining
3 - 5 %	5 - 8 %

PI UNIMET® AS 220 S Art. No. 40195.44 Q. No. 0408920 Q, last update 31.10.07

STORAGE CONDITIONS:

The concentrate is to be stored at room temperature (ideal storage temperature is between +10 °C (50 °F) and +30 °C (86 °F)). Its guaranteed shelf life under the indicated conditions is 12 months.

INDUSTRIAL HEALTH AND SAFETY - ENVIRONMENTAL PROTECTION:

UNIMET® AS 220 S

- Complies with German TRGS 611 (Prevention of Nitrosamine formation)
- Is not obliged to be labelled under the European Directive for Classification, Packaging and Labelling of Dangerous Preparations

MIXING:

As with every water miscible metal working fluid, it is important to follow the mixing sequence. As a basic principle always add the concentrate to the agitated mixing water. This is best achieved by using a proportional mixing system to ensure correct operating concentration.

TREATMENT AND DISPOSAL:

Used water miscible metal working fluids must be thoroughly processed before they are disposed of.

UNIMET® emulsions can be pre-treated according to the standard procedures (ultra filtration, vaporiser, organic splitting) to reduce the water content. For more comprehensive information, please consult our technical service department. All disposal procedures should be compliant with local waste regulations concerning mineral oil based products.



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DATA OF WATER-MISCIBLE CONCENTRATE:

Determination	Method	Unit	Value
Density, 20 °C	DIN 51 757	[kg/m ³]	1022
Kin. Viscosity, 40 °C	DIN 53 018	[mm ² /s]	49
Refractive, n _D ²⁰	DIN 51 423	---	1.434

DATA OF WATER-MIXED EMULSION:

Determination	Method	Unit	Value
pH-value 5,0 %	DIN 51 369	---	9.3
Corrosion test	DIN 51 360/1	[Gew. %] - S0/R0	3.0
Corrosion test	DIN 51 360/2	[Gew. %] - K0	2.5

FACTORS:

- Refractometer: 1.3
- Other factors on request