

SHELL ADRANA D 407

Metal Working Soluble Cutting Oil

- Biostable coolant
- Nitrite free
- Chlorine free
- Contains no Heavy metals
- DEA free

APPLICATIONS

Shell Adrana D 407 is used for general and medium severe machining on materials as steel, aluminium and cast iron. Shell Adrana D 407 is specially recommended for all kinds of grinding operations in the bearing industry

- good stability when tramp oil is present
- very good stability in water with high hardness
- good anti-foam characteristics in soft water
- extremely good anti-corrosion protection, even with higher chloride content
- high detergency properties, due to balance of boron, amine and biocide

-Proposed Concentrations

Percentage of use varies greatly due to the average machining operations, the hardness of water, the required work pieces protection. The percentage of use with average hardness of water is usually:

- Machining of steels : 5 – 7 %
- Machining of cast iron : 3 – 7 %
- Machining of aluminium : 5 – 7 %
- Grinding of steel : 3 %
- Brass : 3 %

TYPICAL PHYSICAL CHARACTERISTICS OF SHELL ADRANA D 407

	Unit	Method	SHELL Adrana D 407
Mineral Oil Content	%		30
Kin viscosity at 20 °C	mm ² /s	DIN 51 562	112
Density 20 °C	kg/m ³	DIN 51 757	1021
pH of the emulsion at 3 %		DIN 51369	9,3
Min.Anti-Cor. Protection Limit (0-0)	%	DIN 51360/2	3,0
Refractometer factor			1,1

These characteristics are typical of current production.

Whilst future production will conform to Shell's specification, variation in these characteristics may occur.

REMARKS

-Preparation of an emulsion:

Shell Adrana D 407 has a natural tendency to dissolve and disperse quickly in water when an emulsion is prepared whether manually or by a blending device. When the dilution is made by hand, we recommend the addition of the product to water (not vice versa) to give a higher possibility of even dispersion in the liquid mass.

The above operation, if carried out slowly and under continuous stirring, will give a highly stable emulsion, assuring the best performance of the coolant.

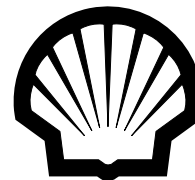
Preparing a useful emulsion is also possible using suitable mixing devices (Ventury or Volumetric type).

-Checking the concentration:

An evaluation of the concentration of a Shell Adrana D 407 is easily carried out either by refractometer or by chemical methods.

TECHNICAL INFORMATION

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-Emulsion replacement:

Both when using Shell coolants for the first time and when replacing a used sump, it is suggested, first of all, to wash and disinfect carefully the circuit and the coolant tank. The above cleaning operation will give best results if it is carried out according to the following sequence of operations:

- 1) on starting the last working shift, 2% of Shell MWS Additive SC 201 or 202 (detergent System Cleaner) added to tank while work continues as normal or, in any case, while the coolant is kept circulating in the system for the same period of time.
- 2) Then, the tank and circuit are drained and the whole system carefully rinsed. If the system is a single one with a rather complex design or if it is a centralized one, we suggest the removal of any sludge from areas of stagnation.

-Health and Safety

More information you will find in the Material Safety Data Sheet.

-Disposal considerations:

Waste must be disposed of in accordance with EC Directive 91/156, 91/689 and 94/62.

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