



ADVANTAGE P1-HD-SOL

Heavy-duty Bio-resistant Machining and Grinding Fluid for Use with All Metals

Description

Advantage P1-HD-SOL combines the unique bio-resistance and lubrication for heavy duty to severe extreme pressure performance, providing one coolant capable of working in many applications on a wide variety of metals. Its versatility is demonstrated by the range of materials and machines on which it can be used including the latest high speed CNC machining centres and high pressure coolant systems.

Advantage P1-HD-SOL is specifically formulated for heavy duty to severe machining and grinding operations such as milling, drilling, boring, reaming, broaching and multiple grinding operations on high or low carbon steels, mild and hardened steels, stainless steel 300/400, alloy steels such as 4130 and 4140, cast iron, nodular iron, grey iron, exotica and 356-T6, 368, 380 & 390 cast aluminium.

Advantage P1-HD-SOL is compatible with hard water, is clean running and uniquely bio resistant which assures long, odourless sump life unobtainable with traditional bio-stable and other water soluble fluids. **Advantage P1-HD-SOL** provides corrosion protection without staining and affords excellent lubrication for machine ways and indexing mechanisms

Features & Benefits

FEATURES	BENEFITS
Clean running	Reduced disposal cost/ less down time
Excellent corrosion	In-process protection of protection machinery and parts
Excellent machining	Increased tool life; capabilities improves surface finish

Typical Physical and Chemical Properties

Appearance

Neat	Amber fluid
5% Emulsion	White translucent

pH @5% 9.3

Density @15°C 1.030 kg/L

Recommended Usage Concentration

The recommended usage concentration of **Advantage P1-HD-SOL** for Machining is 1:10 (10%) to 1:25 (4.0%) and Grinding is 1:25 (4%) to 1:30 (3%). This may be customised to suit individual needs or solutions, which may vary from time to time. For further advice please contact your Sales Representative.

Concentration Checks

Periodic solution concentration checks of **Advantage P1-HD-SOL** should be carried out with a hand held refractometer. The refractometer factor for **Advantage P1-HD-SOL** is 1.0. Therefore the refractometer reading equals the emulsion concentration in percent (%). Please contact your sales representative for further information about this service.

Usage, Storage and Disposal

Usage

Before using **Advantage P1-HD-SOL** please ensure that all safety requirements as set out on the Material Safety Data Sheet are observed and adhered to, if ever in doubt please contact your sales representative who will be happy to help by addressing any concerns or questions.

Storage

Store according to instructions given on Material Safety Data Sheets.

Disposal

Use an accredited Trade Waste Disposal Company, which complies with all the local environmental laws and regulations when disposing of any waste product.

Health and Safety

Refer to Material Safety Data Sheet for the proper handling, use and disposal of this product. Product MSDS can be found at www.mapal.com.au for additional information contact MAPAL Australia on 1300 825 267.

Product Shelf Life

Under normal conditions the recommended shelf life for **Advantage P1-HD-SOL** is a minimum of Six (6) months, unless otherwise specified.

Availability and Shipping Classification

Advantage P1-HD-SOL is available in 205 litre drums. Other sizes may be available upon request, please contact your sales representative.

Transportation of **Advantage P1-HD-SOL** should be done in accordance to the Material Safety Data sheets, local laws and regulations. It is highly recommended that an accredited transportation company should always be used.

Warranty

The information given here is considered to be correct and is offered for your consideration, investigation and verification. No warranties are expressed or implied, since the use of our products is beyond our control.

Advantage P1-HD-SOL is made in Australia.



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