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Tel. for Information: (07) 3245 2355 Last Updated: April 2008	Fax for Information: (07) 3245 2499 Page 1 of 1
Technical Data Sheet	MOLYSLIP Metal Working Fluid

DESCRIPTION

MOLYSLIP MWF is a concentrated fluid containing a unique oil-soluble molybdenum compound together with extreme pressure anti-weld additives.

PERFORMANCE

The aims of lubricants for cutting and forming tools are the reduction of friction, and, through this the reduction of heat which otherwise results in expansion and distortion of the work, and inaccuracy of machining, as well as in absorption of power which can otherwise be channeled into faster production, through greater speed and feed techniques.

In order to understand the precise function of MOLYSLIP MWF cutting and forming fluid, it must be explained that we rely upon the protective film of molybdenum sulphide (MoS), with its ultra hard slippery surface, and resistance to extreme pressure, to cater for the compressive forces of high intensity applied to the work by the tool. Where metals are relatively brittle and 'chip' easily, the cutting action is rarely a problem, but with tougher steels, and ductile metals, there is a notable increase in cutting pressure for the actual shear of metal to take place. This can result in build-up of metal on the tool cutting edge, with subsequent clogging, and great frictional heat, particularly since the tool itself rapidly becomes blunt under these conditions, and aggravates the situation. With very tough metals in the stainless steel and nimonic range, work-hardening and skin-toughening effects result in heat and inaccuracy very quickly, unless special precautions are taken. The coating of tool edges with MoS forms a low friction surface, permitting easier shearing, and passing of cut metal over the work faces of the tool, with a corresponding moderation of the heat generated.

Naturally, cutting fluids are used wherever possible to transfer heat away from both the work and the tool, but it follows that if an MoS supplement is included, the problem is being attacked from two angles with a very much greater guarantee of success. In fact, with nimonic and stainless steels, dramatic increases in speeds, feeds and dimensional accuracy have been achieved. There is also the important aspect of reduction tool wear, since even a minor saving in the outlay expended upon tools, over a period, will amply repay the cost of using MOLYSLIP MWF.

APPLICATION

MOLYSLIP MWF should be applied directly to the cutting tool or workpiece to meet the extreme pressure conditions in cutting and forming. Its extreme pressure agents help to prevent weld, or pick up both with tough metals and light alloys. MOLYSLIP MWF is especially useful for hobbing, gear shaping, thread grinding, broaching and tapping. Where a mineral cutting oil is used MOLYSLIP MWF can be mixed in proportions of between 5% and 25%.

PACKAGING

350ml bottles P/No 41003
5litre poly bottles P/No 41050
25 litre drums
205 litre drums

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