

HAROLBIO 1

Technical Data Sheet

Description: It's a neat MWF, free from mineral oil, formulated for ferrous and non-ferrous metals removal operations. It is made from state-of-the-art raw materials, based on saturated and synthetic esters, mixed with components, which improve machining and antioxidant, rust and metal passivators additives.

Features:

- neither fumes nor vapours while working;
- high flash point for safe operations;
- excellent fluidity even at low temperatures and exceptional wetting power, for a quick and an even spreading on metal surface;
- excellent greasing, EP, detaching and cutting power, for high quality finishes;
- good oxidation and rust resistance;
- good anti-wear properties;
- low temperature of worked pieces;
- well crushed and shredded scrap;
- excellent cutting and anti-welding power;
- 100% biodegradability;
- friend to operators, because it does not contain either harmful or irritant components.

The product is free from chlorinated and sulfur compounds and does not contains Polycyclic Aromatic Hydrocarbons (PAHs).

Applications: All metalworking operations, including heavy ones, of removal, cutting, buckling and bending with both systems of traditional jet lubrication and minimal spray ones, on ferrous and non-ferrous metals, including Titanium. The product can be used also for high performance grinding of steel, in particular stainless steel and hard metals; it performs excellent with all grinders types, included CBN.

AVERAGE CHEMICAL AND PHYSICAL PROPERTIES*

| | | | |
|------------------------------|-------------|--------|--------|
| Density at 20 ° C | ASTM D 1298 | Kg / l | 0,858 |
| Viscosity at 40 ° C | ASTM D 445 | cSt | 8,46 |
| Viscosity at 100 ° C | ASTM D 445 | cSt | 2,64 |
| Viscosity Index | ASTM D 2270 | - | 162 |
| Flash point | ASTM D 92 | °C | 204 |
| Fire Point | ASTM D 92 | °C | 227 |
| Cloud Point | AOCS Cc6-25 | °C | < 0 |
| Iodine Number | ASTM D 4607 | | < 2 |
| RPVOT/RBOT Induction time | ASTM D 2272 | min | > 1000 |

*Data do not constitute any specification

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