

SWISSCOOL AERO 8200

High-performance water-miscible metal working fluid for the aircraft industry

Description

SWISSCOOL AERO 8200 is a water-miscible cutting fluid free from chlorine, sulphur, boron and formaldehyde.
SWISSCOOL AERO 8200 is based on a polymer technology. This innovative technology allows for the reliable machining of sensitive aluminum alloys.

Advantages

- free from boron and formaldehyde mild formulation
- extraordinary performance above-average tool life suitable for aircraft alloys (Al/Ti)
- water hardness forms stable and low-foam emulsions with preparation water between 5°dH and 30°dH
- complies with current legislation meets the requirements of TRGS 611
- excellent rinsing behaviour clean machine tools very clean workpieces after machining
- outstanding corrosion protection protects machines and components excellent protection against discolouration of the material
- excellent biostability the selected formulation prevents uncontrolled biological growth, resulting in a long emulsion service life no biological growth according to the ASTM E2275-13 test.

Field of application

Suitable for drilling, turning and milling of high alloyed steels, nickelbased alloys, titanium and aluminium alloys.

Notes

The product is free of chlorine, silicones, halogens, Sulphur and phosphorus.

Recommended concentration

Aluminium	6 - 7 %
High - alloy materials	7 – 10 %

Passed following relevant tests* without limitation:

Sandwich Corrosion Test	ASTM-F1110 Hydrogen
Embrittlement Test	ASTM-F519
Total Immersion Corrosion Test	ASTM-F483
Stress-Corrosion of Titanium Alloys	ASTM-F945
High Temperature Corrosion Test	LHT and RR CSS300/8
Intergranular Attack (IGA) Test	BSS 7219 (Al7075)
Long-term Storage at Elevated	LSET
Boeing BAC 5008 Rev. U	12.1, 12.3, 12.5 conformance
Rolls-Royce: requirements as stipulated within RRP 59000	

- *ASTM American Society for testing and materials
- *BSS Boeing specification support
- *LHT Lufthansa Technik
- *RR CSS Rolls Royce consumable supply specification

Shelf life/Storage conditions

12 month in a closed container at temperatures between 5 °C and 40 °C.

Technical data

Properties	Unit	Test according to	Values
Colour			yellow
Density at 20 °C	g/ml	ASTM D4052	0.980
Viscosity at 40 °C	mm ² /s	DIN 51562-1	54
Mineral oil content	%	DIN 51561-1	29
Corrosion test GG25 chips	5 %	DIN 512360-2	0-0
pH value at 5% concentration		DIN 51369	~8.7
Refractometer factor	% Brix		1.2

European waste code: 12 01 09 / Water hazard class: 1

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