

SPOTCHECK SKC-S ZYGLO ZE-4B ZR-10C



CLEANERS/EMULSIFIERS/REMOVERS

General Description

Product	Description	Composition	Special benefits
SKC-S	A clear, colourless, flammable solvent for general pre-cleaning and penetrant removal. Designed for use on a wide range of substrates to remove oils, greases and other contaminants.	A blend of aliphatic petroleum distillates.	<ul style="list-style-type: none"> • Fast drying. • Non-halogenated. • Ideal for situations where chlorinated solvents are undesirable or prohibited.
ZE-4B	A ready-to-use, fast-acting lipophilic emulsifier designed for use with Zyglo post-emulsifiable dye penetrants (ZL-2C, ZL-27A, ZL-37).	A blend of emulsifying agents and oils.	<ul style="list-style-type: none"> • Fast acting - quick processing times. • Long lasting. • High flash point and low volatility. • Biodegradable. • Safe to use on all aerospace alloys including aluminium, steel, nickel and titanium.
ZR-10C	A water-soluble remover concentrate used (diluted in water) as the remover/emulsifier in post-removable penetrant systems.	A blend of emulsifying agents.	<ul style="list-style-type: none"> • Usable over a wide range of concentrations. • Excellent control over removability. • Biodegradable.

Typical Properties (not a specification)

Property	SKC-S	ZE-4B	ZR-10C
Form and colour	Water-white liquid	Pink/red liquid	Pink/red slightly cloudy liquid
Flash point	-40°C (aerosol); 7°C (bulk)	> 93°C	> 100°C
Density	0.72 g/cm ³	0.93 g/cm ³	1.04 g/cm ³
Corrosion	Meets AMS 2644 Class 2	N/A	N/A
Viscosity	0.86 mm ² /s at 25°C	25 mm ² /s at 38°C	40.7 mm ² /s at 38°C
Suphur content	< 300 ppm	< 1,000 ppm	< 500 ppm
Chloride content	< 300 ppm	< 1,000 ppm	< 500 ppm
Fluoride content	< 50 ppm	N/A	< 50 ppm
Sodium content	N/A	N/A	< 100 ppm
Storage temperature	10°C - 30°C	10°C - 30°C	18°C - 30°C
Usage temperature	< 50°C	10°C - 55°C	10°C - 55°C

Like all Magnaflux materials, our cleaners/removers are closely controlled to ensure batch-to-batch consistency, optimum process control and inspection reliability.

SKC-S, ZE-4B, ZR-10C

General Method of Use

SKC-S

Pre or post cleaning

- Spray the surfaces to be cleaned liberally with the cleaner, and either wipe off or allow to air dry.
- Alternatively, soak a clean cloth with the cleaner and wipe the part clean. Allow the part to dry thoroughly before applying the penetrant.

Penetrant removal

- Wet a clean dry lint-free cloth with the cleaner and wipe the inspection area.
- **DO NOT** spray or apply the remover directly to the inspection surface - this will impair sensitivity.

ZE-4B and ZR-10C

Immersion dip

ZE-4B is ready to use as supplied. ZR-10C needs to be diluted with water before use, normally at a 5% - 20% concentration. Note: In cold storage conditions, ZR-10C may appear cloudy. This is due to the type of surfactants used and is normal for this type of product.

The immersion dip method is as follows:

- Pre-clean the test part
- Apply penetrant and allow contact time
- **ZR-10C only:** spray with clean water for 15-30 seconds
- Immerse part in the emulsifier bath for required time*
- Drain the part, then rinse with water
- Allow to dry
- Apply developer
- Inspect part
- Post-clean with a clean water spray to remove any penetrant/emulsifier residues.

* The length of time is dependent on the penetrant type, specification requirements and the desired results. This is normally:

- **ZE-4B:** 30 - 60 seconds
- **ZR-10C:** 30 - 120 seconds

When using ZR-10C, you will need to regularly agitate the bath during use, and check the concentration to ensure that the established working strength is maintained. This can be achieved by the use of a suitable refractometer.

Spray

ZR-10C can also be diluted and applied as a spray. For spraying, the usual concentration range is 0.1% to 0.5%; however, you can use a maximum concentration of 5% depending on the application.

Specification Compliance

Specification	SKC-S	ZE-4B	ZR-10C
AMS2644F	✓	✓	✓
ASME B & PV Code, Sec V	✓	✓	✓
ASTM E165/E165M	✓	✓	✓
ASTM E1417/E1417M	✓	✓	✓
EN ISO 3452-1	✓		
EN ISO 3452-2	✓		
MIL-STD-2132D	✓	✓	✓
MIL-STD-271F	✓	✓	✓
Pratt & Whitney PMC			4355-11
Rolls Royce RRP 58003 (CSS 232)			✓
SAFRAN Pr 5000/In 5000			✓

Availability

Unit	SKC-S	ZE-4B	ZR-10C
	Part number		
10 x 400ml aerosols	008A100	N/A	N/A
4 x 5 litre containers	005C007	N/A	N/A
25 litre containers	054C008	065C025	065C002
200 litre drums	N/A	N/A	065C003

Health and Safety

Read the relevant Safety Data Sheet for this product before use. Safety Data Sheets are available on request from your Magnaflux distributor or via the Magnaflux website:

www.eu.magnaflux.com