

Descale

KT-CC-DSC

Acid descaler for ultrasonic and immersion cleaning · phosphoric acid concentrate

DILUTION 2.5–10% typically 2.5–5%	TEMPERATURE Ambient–50 °C typically 40–50 °C	CYCLE TIME Varies soil-load dependent	PH CONCENTRATE < 1 strongly acidic
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DESCRIPTION	Descale is a concentrated phosphoric-acid formulation for ultrasonic and immersion cleaning applications, developed to remove oxides, rust, heat scale, and welding flux and spatter from metal components. As a mineral-acid concentrate it works by direct chemical attack on oxide and scale layers. Fully water-soluble and supplied as a liquid concentrate for tank dosing.	
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KEY BENEFITS & industries	- Removes rust, oxide scale, heat scale and mill scale from metal surfaces - Strips welding flux and weld spatter - Formulated for ultrasonic and immersion tank use	- Water-soluble, fully miscible concentrate - Does not etch glass — unlike hydrofluoric-based descalers
	Metal fabrication & welding	Engineering & maintenance
		General manufacturing

TYPICAL CHARACTERISTICS from SDS §9	Form / appearance	Clear, colourless liquid
	Odour	Slight
	Solubility in water	Soluble
	pH, concentrate	< 1
	Boiling point	> 100 °C
	Flash point	Non-combustible
	Typical values only — consult the specification sheet. Sourced from the Kleentek SDS (KT-CC-DSC, v1.1, issued 23 Feb 2024).	

USE RECOMMENDATIONS	System	Ultrasonic and immersion tanks
	Dilution	2.5–10% v/v, typically 2.5–5%
	Cleaning temperature	Ambient–50 °C, typically 40–50 °C. Do not exceed 60 °C in ultrasonics
	Cleaning duration	Soil-load dependent — establish by trial on first use, and use the shortest cycle that works
	Rinse	Rinse thoroughly with water, then neutralise with an alkaline degreaser dip if required
	Ultrasonic temperature. Cavitation intensity peaks around 50–60 °C and falls away above 70 °C, so heat beyond 50 °C adds no cleaning while roughly doubling acid attack every 10 °C. Ultrasonics also aerosolise the bath — acid mist rises sharply above 50 °C, so extraction is required. Run in a polypropylene insert tank or a dedicated acid-resistant unit, and do not leave acid standing in a stainless ultrasonic tank. On hardened or high-tensile steel, bake within 4 hours of pickling to relieve hydrogen embrittlement.	

MATERIAL COMPATIBILITY	Ferrous — stainless steel (phosphoric acid passivates it) · carbon steel and cast iron, time-limited
	Non-ferrous — titanium
	Plastics & composites — HDPE · polypropylene · PVC · nitrile · EPDM · Viton
	Other — glass; phosphoric acid does not etch glass
	Not suitable Aluminium · zinc and galvanised · magnesium · cadmium plating · tin and soft solder · painted surfaces · concrete and masonry. Copper, brass (dezincification), nickel and chrome plating are attacked on prolonged contact — time-limit and test.
	Descale is a Class 8 corrosive concentrate. On carbon steel and cast iron the base metal is attacked along with the scale — time-limit, rinse and neutralise. Always confirm compatibility by testing before committing a batch.

SOILS REMOVED

Oxides · rust · heat scale · mill scale · welding flux · weld spatter

AVAILABILITY
& quality

10 L KT-CC-DSC-10	20 L KT-CC-DSC-20	200 L KT-CC-DSC-200
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Minimum order quantity 10 L. Manufactured under Kleentek's ISO 9001:2015 certified quality management system — a Certificate of Analysis for the supplied batch is available on request.

TRANSPORT

Dangerous goods — UN 1805, Class 8, PG III. Proper shipping name: PHOSPHORIC ACID, SOLUTION.

SAFETY & HANDLING

Classified as hazardous — GHS Danger: may be corrosive to metals (Category 1); causes severe skin burns and eye damage (Category 1B/1). Wear chemical-resistant gloves, protective clothing and eye/face protection. Store in a corrosion-resistant container with a resistant inner liner, locked up. Refer to the Safety Data Sheet (KT-CC-DSC); the SDS takes precedence over this document in all matters of safety.