ASR

Product Bulletin

ASR TURBO-CLEAN 3503

Suitable for Heav-Duty Industrial turbine systems

PRODUCT DESCRIPTION AND APPLICATION

ASR TURBO-CLEAN 3503 is a specialized reactive fluoro-acidic descaling formulation designed for efficient removal of silicate, oxide, and mineral scales from boiler tubes, heat exchangers, and process surfaces. It dissolves tenacious deposits that conventional mineral acids cannot effectively remove, restoring metal efficiency and system cleanliness. The formulation includes proprietary corrosion inhibitors and stabilizers that minimize base-metal attack and vapor-phase reactivity while maintaining fast scale dissolution kinetics. ASR TURBO-CLEAN 3503 is especially effective where silica or mixed-oxide scales are present.

PHYSICAL & CHEMICAL PROPERTIES

Property	Typical Value
Form	Clear liquid
Appearance	Colorless to pale straw
Odor	Faint acidic
Density @25°C	1.10 – 1.13 g/cm^3
Specific Gravity @25°C	1.10 – 1.13
pH (Neat)	< 1.0
Flash Point	Non-flammable
Freeze Point	–25 °C
Boiling Point	≈105 °C
Solubility in Water	Complete, exothermic reaction
Corrosivity	Highly reactive with glass, silica, and oxides

NOTE: These physical properties are typical values for this product. Please refer to the Safety Data Sheet (SDS) for the most current and complete information.

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ACTIVE CONSTITUENTS

ASR TURBO-CLEAN 3503 contains a proprietary blend of reactive fluorinated acid components with organic stabilizers and film-forming inhibitors. The product ensures rapid dissolution of silica-based and metallic oxide scales with controlled metal protection.

REGULATORY APPROVALS

ASR TURBO-CLEAN 3503 is formulated from industrial-grade materials compliant with relevant chemical and safety standards for descaling and maintenance operations. For specific regional or industry regulatory approvals, consult the product Safety Data Sheet (SDS) or your ASR technical representative.

MATERIALS OF COMPATIBILITY

Compatible	Not Compatible
PVC, CPVC	Glass and Silica-based materials
Polyethylene	Ceramic and glazed surfaces
Polypropylene	Carbon steel (without inhibitor)
Teflon (PTFE)	Aluminum
Viton	Copper and Copper alloys
HDPE	Zinc and Zinc alloys

DOSAGE AND FEEDING

The dosage of ASR TURBO-CLEAN 3503 depends on the extent and nature of the scale. Typical concentrations range from 2% to 10% by volume in water. Circulate the solution through the equipment until scale removal is complete, then flush with clean water and neutralize with an appropriate alkaline rinse. Contact your ASR representative to determine the optimal dilution ratio and exposure time for your system.

ENVIRONMENTAL AND TOXICITY DATA

Refer to SDS Sections 11 and 12 for full environmental and toxicological data. ASR TURBO-CLEAN 3503 contains no heavy metals, oxidizers, or halogenated hydrocarbons. Ensure neutralization prior to disposal according to local environmental regulations.

SAFETY AND HANDLING

ASR TURBO-CLEAN 3503 is a highly reactive acid formulation. Handle with extreme care. Avoid contact with skin, eyes, and clothing. Use only in well-ventilated areas. Wear acid-resistant gloves, goggles, and protective clothing. Do not use or store in glass containers. Always add product to water—never the reverse—to minimize heat generation. In case of exposure, immediately flush affected areas with plenty of water and seek medical assistance. Refer to SDS Section 8 for complete PPE guidance.

STORAGE

Store ASR TURBO-CLEAN 3503 in corrosion-resistant containers made of HDPE, PVC, or FRP. Keep tightly closed and away from alkalis, metals, and glass materials. Do not store above 35 °C or below 5 °C. Avoid moisture ingress and direct sunlight. Shelf life is 12 months under recommended storage conditions.

REMARKS

For additional technical support or product information, please contact your nearest ASR Representative.

For Medical and Transportation Emergencies involving ASR products, refer to the Safety Data Sheet for the emergency contact number.

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