

## Product Bulletin

# ASR TURBO-CLEAN 3502

Suitable for Heavy-duty Industrial Turbine Systems

### PRODUCT DESCRIPTION AND APPLICATION

ASR TURBO-CLEAN 3502 is a high-strength proprietary acidic descaling formulation developed for rapid and safe removal of scale, rust, and mineral deposits from boiler surfaces and heat-exchange equipment. The product effectively dissolves iron oxides, calcium carbonate, and other mineral scales, restoring thermal efficiency and metal surface cleanliness. It contains controlled inhibitors to minimize base metal attack during cleaning and ensures uniform descaling performance. ASR TURBO-CLEAN 3502 is suitable for use in high-pressure and low-pressure boiler systems, evaporators, and industrial heat exchangers.

### PHYSICAL & CHEMICAL PROPERTIES

Property	Typical Value
Form	Clear liquid
Appearance	Colorless to pale yellow
Odor	Sharp, pungent acidic
Density @25°C	1.16 – 1.18 g/cm <sup>3</sup>
Specific Gravity @25°C	1.16 – 1.18
pH (Neat)	< 1.0
Flash Point	Non-flammable
Freeze Point	-30 °C
Boiling Point	≈108 °C
Solubility in Water	Complete, exothermic reaction
Corrosivity	Highly corrosive to metals without inhibitor

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.

## ACTIVE CONSTITUENTS

ASR TURBO-CLEAN 3502 contains a proprietary blend of strong acidic components combined with corrosion inhibitors, surfactants, and stabilizing agents. The formulation ensures effective scale dissolution with controlled base-metal protection and minimal hydrogen evolution.

## REGULATORY APPROVALS

ASR TURBO-CLEAN 3502 is formulated with raw materials that comply with general industrial chemical safety standards for water-treatment and maintenance applications. For specific regulatory or certification details, please refer to the Safety Data Sheet (SDS) or contact your ASR representative.

## MATERIALS OF COMPATIBILITY

Compatible	Not Compatible
PVC, CPVC	Carbon Steel (without inhibitor)
Polyethylene	Galvanized surfaces
Polypropylene	Aluminum
Teflon (PTFE)	Zinc and Zinc alloys
Viton	Copper and Copper alloys
HDPE	Nickel and Nickel alloys

## DOSAGE AND FEEDING

The dosage of ASR TURBO-CLEAN 3502 depends on the severity of scale, equipment design, and operational conditions. Typical descaling concentrations range from 5% to 15% by volume in water. Circulate the prepared solution through the system until scale removal is complete, then rinse thoroughly with clean water and neutralize using a suitable alkaline rinse solution. Your ASR technical representative will recommend the optimum dosage and cleaning duration for your specific system.

## ENVIRONMENTAL AND TOXICITY DATA

Refer to SDS Sections 11 and 12 for complete ecological and toxicological data. ASR TURBO-CLEAN 3502 contains no heavy metals or halogenated organics. The product must be neutralized prior to disposal to comply with local environmental discharge regulations.

## SAFETY AND HANDLING

This product is strongly acidic. Avoid direct contact with skin, eyes, and clothing. Always add product to water, never the reverse, to prevent splashing and heat generation. Use only in well-ventilated areas. Wear chemical-resistant gloves, goggles, face shield, and protective

clothing. In case of contact, immediately flush with plenty of water and seek medical attention if irritation persists. Refer to SDS Section 8 for complete PPE guidance.

## **STORAGE**

Store ASR TURBO-CLEAN 3502 in a cool, dry, well-ventilated area away from direct sunlight and incompatible materials such as alkalis and oxidizing agents. Use corrosion-resistant storage containers made of PVC, HDPE, or FRP. Do not store in metallic tanks.

Recommended storage temperature: 5–35 °C. Shelf life: 12 months under proper storage conditions.

## **REMARKS**

If you need assistance or additional technical information on this product, please contact your nearest ASR Representative.

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

ASR CHEMICALS CORPORATION