



ELRASA – SAL™ (Soda Ash)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	White, odorless, crystalline powder
Physical Form	Powder
Odor	Odorless
Molecular Weight	106.0 g/mol
Density	2.53 g/cm ³
Relative Density (water=1)	2.5
Bulk Density	600 to 700 g/L
Viscosity	3.4 cP (at 887 °C)
Refractive Index	1.485 (anhydrous)
pH (aqueous solution)	11.37 (1% solution at 25°C)
Assay / Purity	99.00% Min (as Na ₂ CO ₃)
Chemical Properties	
pKa	10.33
Ionic Nature	Ionic compound. It is the disodium salt of carbonic acid.
Incompatibilities	Reacts violently with acids. Incompatible with powdered alkaline earth metals, aluminum, fluorine, and concentrated sulfuric acid.
Hazardous Reactions / Decomposition Products	Decomposes upon heating above 1000°C, evolving carbon dioxide and sodium oxide fumes. Reacts violently with acids to release carbon dioxide gas.
Thermal Properties	
Melting Point	851°C
Boiling Point	Decomposes
Flash Point	Not flammable
Autoignition Temperature	Not applicable
Decomposition Temperature	Begins to decompose at 400°C; decomposes above 1000°C.
Thermal Stability	Stable under normal conditions.



Property	Specification
Solubility	
Solubility in Water	22 g/100 mL (at 20°C)
Solubility in Ethanol	Insoluble
Solubility in Methanol	0.55 g/100 g (at 20°C)
Solubility in Acetone	Insoluble
Solubility in Glycerol	Soluble; 98.3 g/100 g (at 15.5°C)

2. Dosing by Application

Application	Recommended / Max Dosage
Water Treatment (pH Adjustment)	5 - 500 mg/L, determined by laboratory trials based on initial water quality.
Glass Manufacturing (Soda-Lime Glass)	Serves as a primary flux for silica; exact percentage is formulation-dependent.
Detergents	Used as a builder and alkalinity source; percentage varies widely based on formulation type (powder, liquid) and performance targets.
Swimming Pool pH and Alkalinity Control	Used to raise pH and total alkalinity to desired levels.

The information and data contained herein are believed to be accurate but may not be all inclusive and should only be used as a guide. The information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the product for his particular use and on condition that they assume the risk of the use thereof.

EXPLORE ELCHEMY'S PRODUCT PORTFOLIO

[ELRASA - SAL™ \(Soda Ash\)](#) | [Browse Catalog](#) | [Connect with us](#)