



ELRASA – SAD™ (Soda Ash)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	White, uniform, granular, crystalline powder, free from foreign matter.
Physical Form	Granular Powder
Odor	Odorless
Assay / Purity	99.20% min (as Na ₂ CO ₃)
Molecular Weight	105.99 g/mol
Density	2.53 g/cm ³
Bulk Density	975-1100 g/l
Refractive Index	1.535
pH (aqueous solution)	11.37 (1% solution at 25°C)
Chemical Properties	
pKa	10.33
Ionic Nature	Ionic Salt
Incompatibilities	Reacts violently with acids. Incompatible with powdered alkaline earth metals, aluminum, fluorine, and zinc.
Hazardous Reactions	Violent exothermic reaction with acids releases carbon dioxide.
Hazardous Decomposition Products	Upon heating, decomposes to carbon dioxide (CO ₂) and sodium oxide (Na ₂ O).
Thermal Properties	
Melting Point	851°C
Boiling Point	Decomposes
Decomposition Temperature	Begins to decompose at 400°C.
Flash Point	Not flammable.
Autoignition Temperature	Not applicable.
Thermal Stability	Stable under normal conditions.
Solubility	



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

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.

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