



ELPROTECT - IPA™ (Isopropyl Alcohol)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	Colorless liquid
Physical Form	Liquid
Odor	Characteristic alcohol/pungent odor, resembling a mix of ethanol and acetone.
Molecular Weight	60.1 g/mol
Assay / Purity	≥ 99.0% C ₃ H ₈ O
Density	0.786 g/cm ³
Specific Gravity	0.783-0.787
Viscosity	2.4 mPa·s @ 20 °C
Refractive Index	1.376-1.378 @ 20 °C
pH (aqueous solution)	Neutral (~7) when diluted in water.
Chemical Properties	
pKa	16.5
Ionic Nature	Non-electrolyte
Incompatibilities	Strong oxidizing agents, acids, acid anhydrides, halogens, aluminum, acetaldehyde, chlorine, ethylene oxide, and isocyanates.
Hazardous Reactions / Decomposition Products	Decomposes on heating to produce carbon monoxide and carbon dioxide. Can form explosive peroxides upon storage, especially in the presence of air or oxygen. Reacts violently with strong oxidants.
Thermal Properties	
Melting Point	-89 °C
Boiling Point	82.3 °C
Flash Point	11.7 °C (53 °F) Closed Cup
Autoignition Temperature	399 °C (750.2 °F)
Thermal Stability	Stable under normal conditions. Heat, sunlight, and ignition sources can contribute to instability.
Solubility	



Property	Specification
Solubility in Water	Miscible
Solubility in Ethanol	Miscible
Solubility in Methanol	Easily Soluble
Solubility in Acetone	Easily Soluble
Solubility in Diethyl Ether	Miscible
Solubility in Chloroform	Miscible
Solubility in Benzene	Soluble

2. Processing Methods

Hand Sanitizer Rub (WHO-Recommended Formulation)

A formulation for local production as recommended by the World Health Organization.

Key Ingredients	Indicative Dosage (% w/w)
Isopropyl alcohol (99.8%)	75.15%
Hydrogen peroxide (3%)	0.125%
Glycerol (98%)	1.45%
Sterile distilled or cold boiled water	to 100%

General Purpose Glass Cleaner

A typical formulation for a streak-free glass and surface cleaner.

Key Ingredients	Indicative Dosage (% w/w)
Water	88.0%
Isopropyl alcohol	10.0%
2-Butoxyethanol	2.0%
Fragrance / Color	q.s.

3. Dosing by Application

Application	Recommended / Max Dosage
Hand Sanitizers / Antiseptics	60% to 95% (v/v)
Cosmetics (Solvent)	0.1% to 25%
Surface Disinfectants	70% to 90% (v/v)



Application	Recommended / Max Dosage
Glass Cleaners	5% to 15% (w/w)
Deicing Agents	25% to 75% (v/v)

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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