



ELAROMA - BZAL™ (Benzaldehyde)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	Clear, colorless to pale yellow liquid
Physical Form	Liquid
Odor	Characteristic odor
Molecular Weight (g/mol)	106.12
Density or Specific Gravity	1.046 g/cm ³ at 68 °F
Viscosity	1.321 cp at 25 °C
Refractive Index	1.5456 at 20 °C/D
pH (if aqueous solution)	5.9 (1g/l, H ₂ O)
Chemical Properties	
pKa	14.9
Water Solubility	6950 mg/L at 25 °C
Thermal Properties	
Melting Point	-15°F
Boiling Point	354 °F at 760 mmHg
Flash Point	148 °F
Autoignition Temperature	378 °F
Solvent	
Water	~1%
Ethanol	Miscible
Methanol	Miscible
Diethyl ether	Miscible
Benzene	Miscible
Butanol	Miscible
Pyridine	Miscible

Property	Specification
Octanol	Miscible

2. Processing Methods

Perfume

Benzaldehyde is best used as a top note or modifier in almond, cherry, or floral accords. Stabilize using antioxidants as Benzaldehyde is prone to oxidation.

Key Ingredients	Indicative Dosage (% w/w)
Ethanol (95%)	78%
Distilled Water	10%
Benzyl Salicylate	3%
Benzyl Benzoate	2%
Benzaldehyde	0.25%
Linalool	1.5%
Coumarin	1%
Hydroxycitronellal	1.25%
Alpha-Isomethyl Ionone	1%
Citronellol	1%
Fragrance oils (blend)	1%



Detergents

Incorporate Benzaldehyde in the fragrance blend and add during the final mixing stage to preserve its volatile nature. Ensure compatibility with surfactants and check pH tolerance.

Key Ingredients	Indicative Dosage (% w/w)
Linear alkylbenzene sulfonate (LAS)	12.0
Alcohol ethoxylate non-ionic surfactant (C ₁₂ -C ₁₆)	8.0
Ethanol or propylene glycol solvent	5.0
Sodium carbonate / sodium silicate (builders)	3.0
Protease/amylase/lipase enzyme blend	0.15
Benzaldehyde	0.1-1.5%
Chelants (e.g., EDTA, citric acid)	1.0
1,2-Propandiol stabilizer	1.0
Optical brightener	0.2
Water	~70%



Cleansing bar/ Soap

Add Benzaldehyde during the fragrance or cooling phase, typically after saponification is complete. Check for interaction with strong essential oils or reactive alkaline ingredients, which may alter Benzaldehyde's aroma

Key Ingredients	Indicative Dosage (% w/w)
Water	6%
Benzaldehyde	1%
Gamma undecalactone	17.3%
Beta-ionone	8.0%
Allyl heptanoate	8.0%
Natural sinensal	3.5%
Mandarin aldehyde	3.5%
Oxane	2.3%
Beta gamma-hexenol	0.6%
Cis-3-hexenyl acetate	1.0%
Verdox	21.2%
Decyl aldehyde	6.1%
Methyl-2-nonenoate	2.0%
Hexyl cinnamic aldehyde	11.5%
d-limonene	11.5%

3. Dosing by Application

Products	Authorized dosage
Perfumes	0.1-0.5%
Non-spray face and neck products	Upto 0.2%
Bath preparations	0.1%-1%

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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