A2 Plus Liquid

**INCI composition:**  Propylene Glycol  
  Diazolidinyl Urea  
  Iodopropynyl Butylcarbamate

**Appearance:** Clear, colourless viscous liquid

**Description**

A2 Plus Liquid is a powerful broad spectrum system based on traditional cosmetic preservatives without parabens. It is an easy to work liquid preservative that ensures complete protection of most difficult cosmetics. This is a versatile system effective over a broad range of pH and with no effects on colour, odour & viscosity of cosmetics.

**Antimicrobial activity**

A2 Plus Liquid is a synergistic combination of Diazolidinyl urea & Iodopropynyl Butylcarbamate in ratio 100:1, dissolved in propylene glycol. This ratio gives the maximum antimicrobial activity with the lowest level of preservatives. It is highly effective against Gram-negative & Gram-positive bacteria, yeasts & moulds.

**Properties & stability**

A2 Plus Liquid is very soluble in propylene glycol, soluble in water, sparingly soluble in glycerine, very slightly soluble in ethanol and insoluble in mineral oil. Prolonged heating over 40°C and the exposition to direct sunlight should be avoided. It is stable and fully effective in the pH range 3-9.

**Applications**

A2 Plus Liquid is an easy to handle preservative with strong efficacy that can be used alone in a variety of cosmetic products. It is compatible with the most commonly used cosmetic ingredients and does not change the appearance of cosmetics. Typical personal care applications include:

- **Hair care:** shampoos, lotions, conditioners, gels, mousses.
- **Body & face care:** tonics, gels, lotions, wipes.
- **Make-up:** foundations, eye shadows, eyeliners, mascaras, powders, wipes.
- **Shaving products:** shave soaps, gels, aftershave balms, lotions, creams.
- **Bath products:** shower gels, bubble baths, hand cleaners, intimate, oils, powders, wipes.
- **Baby care:** shampoos, bath products, shower gels.
- **Raw materials:** surfactants.

**Use levels**

The typical use levels are 0.1-0.8%. No further preservatives are needed also in more difficult to preserve cosmetics.

**Regulatory approval**

**EU, ASEAN:** allowed in bath products, shower gels & shampoos without restrictions. Allowed in leave-on cosmetics not for use on large part of body and not for children under 3 years (label required). Not to be used for oral-care and lip-care.

**USA:** allowed in rinse-off & leave-on products not to be aerosolized.

**Japan:** Not allowed.
**Technical support**

Our microbiological laboratory can support customers in the preservative choice; the optimal preservation is suggested on the basis of challenge tests conducted on customer’s formulations.
For further information, documentation and samples please contact us.

**Highlights**

- Powerful broad spectrum preservation.
- Synergistic combination of the strongest cosmetic preservatives.
- Effective alternative to parabens.
- Easy to formulate liquid form.
- Not sensitive to pH and effective in wide pH range 3-9.
- No changes of colour, odour & viscosity of finished cosmetics.
- Suitable for wide range of cosmetics, particularly suggested in rinse-off.
- Reduced use levels & competitive final costs.

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