



# **Paramount Minerals and Chemicals Limited**

(An ISO 9001- 2000 Certified Company)

## **Parawhite BF-AF Liquid**

<b>Chemical Description</b>	<b>Hexasulphonic Derivative of 4,4'-diamino-stilbene-2,2'-disulphonic acid</b>
<b>Ionicity</b>	<b>Anionic</b>
<b>Shade</b>	<b>Clear, slightly Bluish Violet white</b>
<b>Substantivity</b>	<b>Low</b>
<b>Form supplied</b>	<b>Clear Yellow liquid</b>
<b>Density at 25 deg C</b>	<b>1.08-1.12 g/cm cube</b>
<b>pH value</b>	<b>10.0</b>
<b>Acid resistance</b>	<b>Excellent</b>
<b>Miscibility</b>	<b>Can be mixed with water in all proportions</b>
<b>Viscosity at 25 Deg C</b>	<b>Lower than 50 mPa.s</b>
<b>Storage stability</b>	<b>2 years.</b>
<b>Recommended for Use</b>	<b>Special Optical Brightening Agent for the surface coating of papers. For coatings with 100 % synthetic binders or only small amounts of carriers such as polyvinyl alcohol, carboxy methylcellulose and starch, especially where high additions of whitening agent are required. For extremely high degrees of whiteness in pigmented coatings.</b>

### Uses

#### Pigmented coatings

With other liquid whitening agents there is not normally any further increase in the degree of whiteness above an addition of 1.4 % (on pigment). With Parawhite BF-AF Liquid, on the other hand, the brightening effect continues to improve well beyond this concentration. Parawhite BF-AF Liquid is therefore especially suitable for coatings which have to be extremely white. In coatings which contain exclusively plastics dispersions or only small amounts of carriers such as starch, polyvinyl alcohol or carboxymethylcellulose, the usual whitening agents have relatively little effect and greening is observed even with only moderate additions. Parawhite BF-AF Liquid frequently produces satisfactory results even in this type of coating. The higher the addition, the more noticeable this advantage over other whitening agents becomes.

**As the product has an exceptionally low tendency to greening, it may under favourable conditions be possible to add up to 6 % Parawhite BF-AF Liquid. (on pigment). The carrier contained in Parawhite BF-AF Liquid. is water soluble and may impair the fastness of the coating to water.**

**The excellent acid resistance of Parawhite BF-AF Liquid ensures that it can be used with minimum amount or no binder at all. This allows to treat two-sidedness by applying an aqueous solution of Parawhite BF-AF Liquid on one side of the paper which does not alter the paper's surface properties.**

### **Size Press**

**Parawhite BF-AF Liquid may be dosed undiluted to the size press liquor. With its low substantivity the product yields a very uniform high whiteness. Parawhite BF-AF Liquid is compliant with all types of starches used in size press application. It can be applied together with PVA, CMC, anionic and slightly cationic, and synthetic sizing additives.**

**High whiteness grade uncoated fine paper may be obtained by using a combination of Parawhite VK range at the wet end and Parawhite BF-AF or Parawhite USP-AF liquid at the size press.**

### **Toxicology**

**The PARAWHITE brands have been subjected to extremely comprehensive toxicological tests. These show clearly that the products do not constitute a health hazard provided they are used for the recommended purpose and the usual safety precautions as specified in the regulations on health and safety at work are taken. The areas covered by the tests include acute and chronic toxicity, carcinogenicity mutagenicity, skin and mucous membrane compatibility and sensitisation. No harmful effect on fish has been observed at the concentrations occurring in water and effluent. Information on handling and on the ecological and toxicological behaviour is contained in the relevant safety data sheets.**