



## NATRASORB<sup>®</sup> BATH Starch INCI: Tapioca Starch

### Oil Adsorbing Hydrophilic Starch

#### INTRODUCTION

The NATRASORB<sup>®</sup> BATH starch is a specialty starch that offers unique functionality that is particularly suited for bath powders. Due to its unique processing, the NATRASORB BATH starch is able to absorb and carry large quantities of oils and anhydrous liquids, such as bath oils. The starch is processed in a manner that creates "pockets" that can carry the oils essentially in a solid, powder form. The processing of NATRASORB BATH starch also renders the starch water soluble so that once the starch comes in contact with water it immediately dissolves, releasing the loaded oils.

When used in a bath powder formulation, NATRASORB BATH starch carries the oils in a powder form into the bath, but readily releases the oils/ fragrances/emulsifiers, dispersing them into the warm water. The starch itself provides a soft feel to the bath water, but does not settle or leave a film. The NATRASORB BATH starch can also be blended with dry surfactant to formulate foaming bath powders with high oil content.

The NATRASORB BATH starch can be used as a carrier and a manufacturing aid for bath salt applications. As described earlier, the starch can be used to absorb the oils and fragrances used in a bath salt formula. When the oil-loaded starch is mixed with the salt granules, the starch naturally adheres well to the salt, eliminating the necessity for a fixative. Within the package, there is virtually no separation of the starch from the salt. The adhesion characteristic is important for both manufacturing uniformity and prolonged packaging stability. In addition, when the salts are added to bath water, NATRASORB BATH starch dissolves readily and completely, releasing the oils and fragrance without leaving any residual particulates.

NATRASORB BATH starch would be applicable in other formulations where oil adsorbency and water solubility are required simultaneously.

#### APPLICATION AREAS

Bath powders, Carrier for oils, Talc replacement



## FEATURES / BENEFITS

Feature	Benefit
Hydrophilic	Water solubility For use in anhydrous formulas
Oil Adsorbency	In combination with its water solubility it delivers oil, fragrances or emulsifiers, when coming in contact with water
Low bulk density	
Modified tapioca starch	Naturally-derived Biodegradable Aesthetic enhancer delivering a soft feel
Binding properties	For powder applications

## PERFORMANCE PROPERTIES

### Adsorption Characteristics

End point	%Mineral Oil Adsorbed (w/ w)
Change in Appearance (No Loss of Flow)	16%
Loss of Free Flow	19%
Saturation (Glistening)	293%

The adsorption evaluations were done by weighing the starch into a Hobart mixer, atomizing the oil onto the starch, mixing until homogeneous, and subjectively assessing the flow properties.

## STORAGE AND HANDLING

NATRASORB BATH Polymer should be stored in a cool, dry location away from heat, sparks or fire. Good industrial hygiene practices should be followed when working with this starch.

Please read the MSDS before working with this or any other chemical.

## HEALTH AND SAFETY

NATRASORB BATH Polymer is an organic particulate. Although it is not prone to dusting, use of a dust mask and good ventilation are recommended. Avoid contact of the powder or dust with heat, sparks or open flame.

A health and safety summary for NATRASORB BATH Polymer is available on request.

It is non GM (not genetically modified).



The suitability of the final formulations should be confirmed in all respect by appropriate evaluation. The marketer is advised to evaluate the final formulation with regard to performance and health safety.

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