



Natrasorb® Bath starch

Oil adsorbing hydrophilic starch

INCI: Tapioca Starch

The Natrasorb® 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.

Recommended applications

- Bath powders
- · Carrier for oils
- Anhydrous skin care formulas

Product highlights

| Features | Benefits |
|-------------------------|--|
| 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 |

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 starch 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 starch 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 starch is available on request. It is non GM (not genetically modified).

Contact us directly for detailed product information and sample request website | nouryon.com/markets/personal-care email | PersonalCare.Marketing@nouryon.com

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