Surfy®nol® 104 Surfactant

Product Stewardship Summary

Surfy®nol 104 surfactant can be used in coatings for high gloss finishes like those used on automobiles, printing inks for newspapers and gift-wrap, and wood staining products that are easy to apply.

Chemical Identity

- Chemical Formula: C_{14}H_{26}O
- Other names: 2,4,7,9-tetramethyl-5-decyne-4,7-diol

Uses and Benefits

Surfy®nol 104 surfactant is a wetting and foam control agent. Its unique chemical structure provides performance benefits in many waterborne applications such as paints, inks, adhesives, metalworking lubricants, agricultural chemicals and dye processing. Products used in these applications have higher surface tension than solvent-based formulations, so a surfactant is typically needed to lower the surface tension, making the water act like a solvent. This is important in printing, metalworking and roll coatings where surfaces are generated at a rapid rate. In these applications Surfy®nol 104 surfactant moves rapidly to the interface to improve overall print quality. Its foam control capabilities can further reduce surface defects like bubbles and pinholes, giving finished surfaces a higher quality appearance.

Physical and Chemical Properties

Surfy®nol 104 surfactant is a white, combustible, waxy solid that is stable under normal conditions. It has a menthol odor. For ease of handling, the product is available dissolved in liquids or as a free-flowing powder on a solid support. Surfy®nol 104 surfactant is soluble in water and common solvents.

Health Effects

Surfy®nol 104 surfactant has a low degree of toxicity. Precautions should be taken to prevent contact with Surfy®nol 104 surfactant since it is a severe eye irritant and a mild skin irritant.
**Environmental Effects**

Surfy
ol 104 surfactant can be manufactured, used and disposed of safely. It has been tested in freshwater and marine species and has been shown to have a low toxicity. Surfy
ol 104 surfactant is inherently biodegradable. In September 2008, the U.S. Environmental Protection Agency determined that Surfy
ol 104 surfactant was a low priority for further review in the Chemical Assessment and Management Program.

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**Exposure Potential and Risk Management Measures**

**Industrial Use**

Surfy
ol 104 surfactant is typically used in formulations at very low concentrations. When handling this product, workers should use chemical-resistant goggles, gloves and long-sleeved shirts.

**Consumer Use**

Surfy
ol 104 surfactant is used in formulations that may be applied or used in consumer products, but it is not sold directly for consumer use.

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**Regulatory Information**

Several regulations govern the manufacture, sale, transportation, use and disposal of Surfy
ol surfactants. These laws vary by country and geographic region. You can find general regulatory information in the Material Safety Data Sheet.

**Sources for Additional Information**

- Air Products Material Safety Data Sheets
- Air Products Safetygrams
- Surfy
ol 104 Surfactant
- EPA High Production Volume (HPV) data for Surfy
ol 104

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**Conclusion**

Surfy
ol 104 surfactant’s unique multifunctional properties can provide performance benefits, including wetting, foam control and improved pigment dispersion. The product can be handled safely with minimal environmental effects when industry and company guidelines are followed.
We developed this Product Stewardship Summary to give you a general overview of the chemical. This Summary is not meant to provide emergency response or medical treatment information. You can find in-depth safety and health information on the Material Safety Data Sheet for the product.