



Thetaguard™ HS-3020

Short-Chain surface protectant

Overview

- Short-Chain Fluorochemical Technology (meets the goal of the US EPA 2010/2015 PFOA Stewardship Program)
- Partially fluorinated material that provides exceptional protection for hard surfaces with little or no change in appearance
- Excellent Oil and Water Repellency and Hold-Out resists soils, stains, chemical degradation and efflorescence
- Vapor permeable for reduced cracking, spalling, freeze/thaw damage
- Water based with low VOC (less than 100g/L, as delivered)
- Ambient cure for ease of use
- Readily dilutes in water with excellent shelf stability
- Non-Acidic for safe use on surfaces that will etch such as polished limestone and marble
- Good stability on alkaline surfaces such as concrete, grout and masonry
- Physically and chemically bonds to substrates
- UV resistant for increased coating life
- Treated surfaces are easier to clean, and improves newness retention
- Ships as DOT Non-Regulated in 55 gallon drums and 5 gallon pails

Applications

- Grout, mortar
- Marble, limestone, concrete/masonry
- Saltillo tile, clay tile, stucco
- Granite, terrazzo, most stone surfaces

Technical Information

Thetaguard HS-3020 is a partially fluorinated product designed for aftermarket, ambient cure applications to hard surfaces. While it offers protection to a broad range of surfaces, it has been specifically designed to provide optimal water and oil repellency on grouts and mortars.

Thetaguard HS-3020 is a pre-formulated concentrate that readily dilutes in deionized or softened water, with exceptional storage stability even after dilution. Products formulated with Thetaguard HS-3020 meet all current VOC regulations.

Formulary

Simply dilute Thetaguard HS-3020 in water (1 part HS-3020 in 3 to 4 parts water) before applying. Addition of a preservative is recommended for packaged dilutions. Preservatives should be selected and evaluated by the formulator to determine use concentration, effectiveness, and formulation stability. Contact your preservative supplier for guidance and recommendations.

Coverage rates will vary depending on the application method, porosity of the substrate, desired performance and cost parameters. Excess liquid applied to a substrate should be wiped up if it has not penetrated after 15-20 minutes to avoid hazing from over-application of the product.

Typical Properties

PROPERTY	VALUE
Appearance	Clear, colorless to pale yellow liquid
Odor	Mild
Ionic character	Anionic
Water solubility	Dispersible
pH (as is)	8.0±1.5
Density@25°C	1.00±0.02 g/ml
Boiling Point	100°C
Flash point	132°F
Storage	Protect from freezing
Shelf life	12 months

Packaging and Handling

Thetaguard HS-3020 is available in:
275 gallon totes (Net Wt. 2205 lbs)
55 gallon plastic drums (Net Wt. 441 lbs)
5 gallon pails (Net Wt. 40 lbs)

Refer to the Safety Data Sheet (SDS) for information on the safe use, handling, and disposal of this product.

DOT Proper Shipping Name:

Combustible Liquid, N.O.S. (contains isopropanol), Combustible Liquid, NA 1993, PG III

Note: In containers of 119 gallons or less, this product is not regulated by DOT for ground shipments.

Whether you're looking for a replacement product or an ingredient for a specific attribute, give us a call. We can provide assistance based upon your particular formulation requirements and composition; please feel free to contact us.

Please refer to back page for important information

Thetaguard™ HS-3020

Application Guidance

Recommended dilution rates vary from 1 part of Thetaguard HS-3020 to 3-4 parts water depending on the application, application rate, porosity of the substrate, desired performance and cost parameters. To improve wetting and penetration into particularly dense stones, and to improve dispersion clarity, up to 5% of a polar organic solvent can be added.

Excess liquid applied to a substrate should be wiped up if it has not penetrated after 15-20 minutes to avoid hazing from over-application of the product.

Note: *Cure time for maximum water protection is approximately 24-72 hours; however, repellency will start to develop almost immediately. Application rates, concentration of Thetaguard HS-3020, and temperature/humidity can impact dry/cure times.*

Formulations Guidance

Thetaguard HS-3020 offers formulation advantages over traditional Stone & Masonry protectors with better water solubility, allowing for higher aqueous concentrations, with or without co-solvent, for use on porous substrates such as grouts and mortars.

Penetrating Grout & Mortar Sealer	
Ingredient	Wt. %
Water, deionized ⁽¹⁾	to 100
Thetaguard HS-3020	20-25
Hard water chelant ⁽²⁾	q.s.
Preservative ⁽³⁾	q.s.
Polar organic solvent ^(4, 5)	q.s.

Formulation notes:

(1) Thetaguard HS-3020 is sensitive to hard water. The use of deionized or soft water is recommended for optimum solution stability and performance.

(2) If deionized water is not available or practical, the addition of a hard water chelant such as salts of EDTA or NTA, or other chelants, is recommended to reduce hard water ion concentration to less than 10 ppm.

(3) For long-term storage, addition of a preservative is recommended. Some preservative candidates include Nipacide BIT 20, Dantogard Plus (granular), Proxel GXL, and VeriGuard 19S. Typically these preservatives are effective at concentrations between 0.05 % and 0.20% on weight of final product, but should be determined by the formulator.

(4) For improved wetting and penetration into particularly dense stones, up to 5% of a polar organic solvent, such as alcohols or glycol ethers, can be added.

(5) The addition of up to 5% polar organic solvents is also recommended to improve the clarity of Thetawet HS-3020 dispersions.

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