

HALLBRITE® EZ-FLO TDX PLUS

INCI Name: Butyloctyl Salicylate, Titanium Dioxide (nano) [Titanium Dioxide] (23%), C12-15 Alkyl Benzoate, Ethylhexyl Methoxycrylene, Triceteareth-4 Phosphate, Dimethicone Crosspolymer, Silica

Product Code: S091

CAS #: 190085-41-7, 13463-67-7, 68411-27-8, 947753-66-4, 119415-05-3, proprietary

EINECS: EC 431-090-3, 236-675-5, 270-112-4, EC 700-213-5, EC 601-610-5, proprietary

Patents: Yes

Brand: HallBrite®

Metal oxides with a wide band gap, such as Titanium Dioxide, absorb and reflect UV energy from the sun's radiation. This makes them useful as UV filters and as pigments in the cosmetic industry. Unfortunately, they are also photo-active, promoting the formation of reactive oxygen species and catalyzing the decomposition of organic materials. This is not desired in personal care applications, where the protective functions of these organic compounds are needed. Commercial surface modifications have not eliminated this degradation, so a new means of protection was needed.

HallBrite® EZ-FLO TDX Plus was developed to highlight the benefits of photo-protected Titanium Dioxide with an industry-leading mineral UV filter aesthetic. This was achieved by leveraging a patent-protected C3+ coating system consisting of silica moieties, alkyl groups and polydimethylsiloxane with Hallstar's market leading photostabilizer technology. HallBrite® EZ-FLO TDX Plus is an easily pourable, highly stable (45°C) dispersion of 23% Titanium Dioxide (nano), coated and dispersed in a carrier containing SolaStay® S₁ (Ethylhexyl Methoxycrylene), HallBrite® BHB (Butyloctyl Salicylate) and C12-15 Alkyl Benzoate, with no particle perception and minimal whitening in use. It may be used as the sole UV filter source for SPF's up to about 20. When combined with Butyl Methoxydibenzoylmethane (Avobenzone) or Zinc Oxide (nano), broad spectrum protection can be achieved to SPF 50.

HallBrite® EZ-FLO TDX Plus shows how mineral UV filters can be easy to work with and also provide nice feeling, low whitening, high performance sunscreens for customers.

Recommended use level: up to 20%.

Features & Benefits:

- Anti-aging Ingredient Photostabilizer
- Skin Protectant (anti-radical properties)
- SPF Enhancement
- Sunscreen Active

- Sunscreen Active Photostabilizer
- Sunscreen Solvent
- UVB Absorber

Appearance	Pourable liquid
Color	Opaque light yellow
Odor	Mild, characteristic
Actives, %	23
Specific Gravity	1.2
Freezing Point (°C)	< -16
Flash Point (°C)	> 182
Insoluble In	Water
Soluble In	Acetone
Packaging	275 gallon tote - 20gals

Regional Approvals:

- ASEAN
 - Australia
 - Canada
 - EU
 - Global
 - Japan
 - Korea
 - MERCOSUR
 - New Zealand
 - Philippines
 - US
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Applications:

- Beach Wear Sun Care
- Daily Wear Sun Care
- Facial Skin Care
- Foot Care

- Hand & Body Care
- Lip Care

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