

Glyceryl Stearate Citrate

PRODUCT IN FOCUS



Glyceryl Stearate Citrate

INTRODUCTION

Glyceryl Stearate Citrate (GSC) is a plant-derived, biodegradable emulsifier commonly used in cosmetics and personal-care products. It functions primarily as an anionic oil-in-water (O/W) emulsifier, helping blend oils and water into smooth, stable creams and lotions. Its natural origin and gentle profile make it popular in eco-certified, organic, and sensitive-skin formulations.

MANUFACTURE

Manufactured through high-level esterification of glycerol, stearic acid, and citric acid.

Synonym

1,2,3-Propanetricarboxylic acid, 2-hydroxy-, ester with 1,2,3-propanetriol monoctadecanoate; Monostearin citrate

CAS no.

55840-13-6

EINECS no.

259-855-5

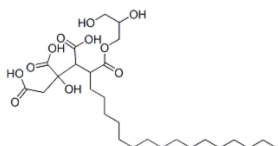
Molecular formula

$C_{28}H_{54}O_{12}$

Molecular weight

582.7

Structure



APPLICATIONS

🔬 Cosmetic & Personal Care

GSC is mainly used as an O/W emulsifier and co-emulsifier.

Common applications:

1. Skin creams & lotions
2. Body butters & moisturizers
3. Sunscreens
4. Anti-aging formulations
5. Baby care products
6. Facial serums and milky cleansers
7. Hair conditioners & masks

Benefits in cosmetics:

- ✓ Enhances skin softness and smoothness
- ✓ Stable across a wide pH range (4.5–7)
- ✓ Helps disperse and stabilize oils and pigments
- ✓ Compatible with vegetable oils and esters
- ✓ Improves spreadability and reduces greasiness

🌿 Natural & Eco-Friendly Formulations

- Popular in organic and natural-certified products (EcoCert, COSMOS).
- Derived from renewable plant-based sources.

🔬 Pharmaceutical & Topical Formulations

- Used as an emulsifier in topical drug delivery systems (creams, gels, ointments).
- Provides mildness and good tolerance for sensitive skin.



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SPECIFICATIONS

Test	Unit	Specification
Appearance	-	Waxy solid flakes
Colour	-	White to off-white
Solubility	-	Insoluble in water
Acid value	mgKOH/gm	Max 10.0
Saponification value	mgKOH/gm	215-265

PACKING

25 kg HDPE bag or drum.

STORAGE

Store in ambient temperature away from direct sunlight and heat.

REACH status

Not registered.

ExSyn offers Glyceryl Stearate Citrate on commercial scales and welcomes enquiries. Our exceptional quality and service will make ExSyn your supplier of choice! If you need any additional information or SDS, please contact us.