

## Ethoxylated hydrogenated castor oil

## Chemical Properties

CAS No. : 61788-85-0

Formula:

Molecular Weight:

Ethoxylated hydrogenated castor oil

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

## Biological Description

Description	Ethoxylated hydrogenated castor oil is a combination of synthetic polyethylene glycol (PEG) with natural castor oil. Ethoxylated hydrogenated castor oil can be used to emulsify and solubilize oil-in-water (o/w) emulsions.
Targets(IC50)	Others
In vivo	Nearly 20% of Ethoxylated hydrogenated castor oil was used to emulsify the glyceryl monooleate (GMO) as an oil to the aqueous phase. In Webster mice, 5000 mg/kg blank nanoemulsion is given orally to mice once a day for 14 days, this nanoemulsion does not produce hazardous effects, and it has no effect on food intake[1]. 20% Ethoxylated hydrogenated castor oil (10 µl) is applied to the left ear of the mouse, and the right ear served as a control. The mice are observed for development of erythema for 6 days, no signs of irritation are observed in the mice[2]. Ethoxylated hydrogenated castor oil (injection via the tail vein; 300, 900, and 2700 mg/kg; 4 weeks) is administered for short-term toxicity. At doses of 300 and 900 mg/kg PEG-40 Hydrogenated Castor Oil exhibits no systemic toxicity. However, at a dose of 2700 mg/kg, slight ataxia is observed and body weight is reduced significantly in the males and slightly in the

## Solubility Information

Solubility	H2O: 35.7 mg/mL, Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Reference

Heni Rachmawati, et al. The In Vitro-In Vivo Safety Confirmation of PEG-40 Hydrogenated Castor Oil as a Surfactant for Oral Nanoemulsion Formulation. Sci Pharm. 2017 Mar 31;85(2):18. doi: 10.3390/scipharm85020018.  
PEG-40 hydrogenated Castor Oil: Does It Benefit The Skin?

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