

ICS 67.020
CCS C 53



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 30609-2014

**National Food Safety Standard -- Food Additives --
Polyoxyethylene Polyoxypropylene Pentaerythritol Ether**

食品添加剂 聚氧乙烯聚氧丙烯季戊四醇醚

(English Translation)

Issued on: April 29, 2014

Implemented on: November 1, 2014

**Issued by: National Health and Family Planning Commission of the
People's Republic of China**

Table of Contents

- 1 Scope
- 2 Structural formula and average relative molecular mass
 - 2.1 Structural formula
 - 2.2 Average relative molecular mass
- 3 Technical requirements
 - 3.1 Sensory requirements
 - 3.2 Physical and chemical indicators

1 Scope

This standard applies to propylene oxide, ethylene oxide, pentaerythritol and other polyols as the main raw material, in the presence of catalyst polymerization of food Additive Polyoxyethylene polyoxypropylene pentaerythritol ether (PPE).

2.1 Structural formula

$C [CH_2O (C_3H_6O)_m (C_2H_4O)_n]_4$ Wherein the polymerization degree of propylene oxide is 10 to 20, and the degree of polymerization of ethylene oxide is 0 to 5.

2.2 Average relative molecular mass

3000 ~ 5000 (according to the 2007 international relative atomic mass).

3.1 Sensory requirements

Sensory requirements shall comply with the requirements of Table 1.

Table 1 sensory requirements

The project requires a test method Colorless or yellowish color State transparent liquid Take appropriate sample in a clean, dry colorimetric tube at 20 ° C to 30 ° C Under the observation of its color and state

3.2 Physical and chemical indicators

Physical and chemical indicators should be consistent with the provisions of Table 2.

Table 2 Physical and chemical indicators

Item Index Test Method Hydroxyl value (in KOH)/(mg/g) ≤ 45 to 56 GB/T 7383 phthalic

anhydride Acid value (in KOH)/(mg/g) $\leq$ 0.3 GB/T 6365 Cloud point (10g/L1mol/L
hydrochloric acid solution)/ $^{\circ}$ C $\leq$ 17 ~ 25 GB/T 5559 Moisture (mass fraction) /% $\leq$ 1.0 GB
5009.3 Karl Fischer method Lead (Pb)/(mg/kg) $\leq$ 2 GB 5009.12