

# Mitsubishi Chemical Polytetramethylene ether glycol Technology

### Polytetramethylene ether glycol: (PTMEG)

PTMEG is manufactured by tetrahydrofuran (THF) polymerization. PTMEG is a key ingredient in the production of a variety of elastomeric products, a major component of spandex fibers, and is also used in thermoplastic polyurethane (TPU) and thermoplastic elastomer (TPEE).

#### Introduction of Mitsubishi PTMEG Technology

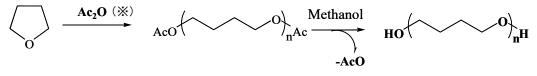
For more than 30 years, Mitsubishi Chemical (MCC) has run PTMEG business (Production and Sales). MCC currently runs 10,000 ton/year batch process ('80) and 25,000 ton/year continuous process ('01) in Japan, and has started operation of 25,000 ton/year continuous plant in China in 2009. MCC has developed its own State-of-Art technology and offers continuous process technology with high performance catalyst which is able to manufacture high quality products.

#### Feature of Mitsubishi PTMEG process

Features of Mitsubishi PTMEG process are as follows;

- (1) Stable and high product quality (uncolored and low impurity), which is highly valued from leading manufacturer of spandex fibers
- (2) Using original catalysts
- (3) Cost competitive process
- (4) Green process
  - /Low waste and low environmental load

#### Chemistry of this process



THF

PTMEG diester

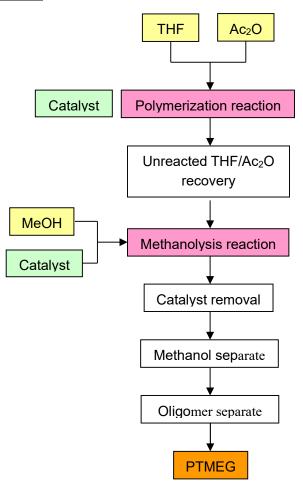
PTMEG

 $(\bigstar) Ac_2O: acetic \ anhydride$ 



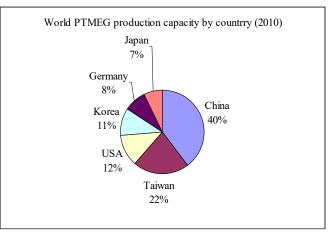
Mitsubishi Chemical Corporation

Simplified block flow



## World PTMEG Plant Capacity

In 2010, world PTMEG production capacity is 666,000 ton/year. Major area is Asia, and the ratio of China is expected to grow even further.



For further details, please visit our homepage at: <u>https://www.m-chemical.co.jp/en/petrochem-license/</u>