

Ethylene Oxide/Ethylene Glycol (EO/EG) Unit

FAST FACTS

LOCATION

Sasol Lake Charles West Plant
Westlake, Louisiana, USA

COMMISSIONED

2019

NAMEPLATE CAPACITY

Crude ethylene oxide (EO): 300,000 tons per year (300 ktpa)
Monoethylene glycol: 250 ktpa

FEEDSTOCK

Ethylene, oxygen

TECHNOLOGY

Scientific Design

PRODUCT FORM

Liquid

CUSTOMER BASE

Purified EO: internal consumption
Ethylene glycols: global

PROCESS

In a continuous process, ethylene in gas form is combined with oxygen in a reactor to produce crude ethylene oxide. A portion of the crude EO is purified for use in the Lake Charles ethoxylates (ETO) units. The balance is reacted with water to produce a crude glycols stream, which is purified in a series of distillation columns to form ethylene glycols.

OUTBOUND LOGISTICS

Purified EO is transferred via pipeline to the Lake Charles ETO units. Ethylene glycols are shipped to customers via barge, railcars or trucks.

END USES

Ethylene glycols are used to manufacture polyester fiber (for clothes, upholstery, carpet, and pillows), as well as in the blending of automotive engine antifreeze and coolant.



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