ETHYLENE OXIDE/ETHYLENE GLYCOL (EO/EG) UNIT

LOCATIONS
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.