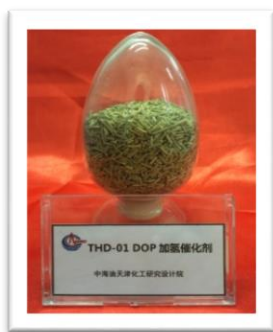


Environmental friendly Plasticizer Hydrogenation Technology (THHD)

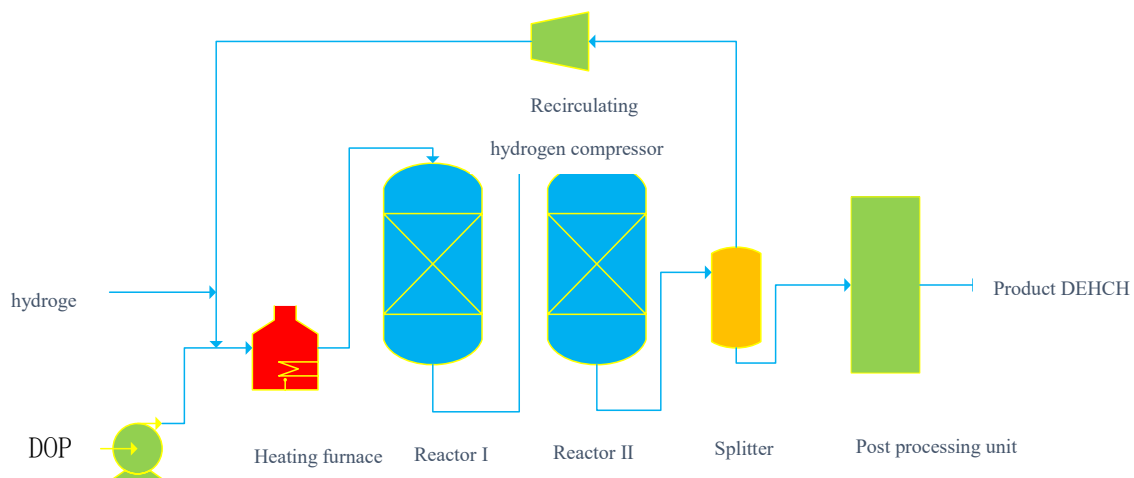
I Technical introduction

China's traditional plasticizers based on DOP, because of the benzene ring, plastic products used in children's toys, medical equipment, food and other industries have potential harm to the human body. Developed countries such as Europe, the United States and Japan have restricted the export of related plastic products in China. The entire industrial chain of China's plastics industry has caused tremendous impact.

CenerTech Tianjin Chemical Research & Design Institute Co., Ltd. uses DOP as raw material to selectively hydrogenate the benzene ring with a self-developed high-efficiency catalyst to form an environmentally friendly plasticizer (DEHCH) process package technology. The DOP content of the product is <0.01%. The product is non-toxic and environmentally friendly, and has excellent plasticizing performance. It can completely replace the use of DOP.



II Technological process



III Technical and economic indicators

Project	DOP conversion rate, %	Ester content, %	Acid value, mgKOH/g	Catalyst one-way life, year
Data	>99.99	>99.5	<0.05	>1

IV Operating process conditions

Project	Reaction pressure,MPa	Temperature reflex,°C	Volume airspeed h ⁻¹	Light oil volume ratio v : v
Data	14	170	0.3~0.5	600~800

V Application range

Used in the hydrogenation of o-benzene plasticizers such as DOP, DBP and DINP to produce cyclohexane dicarboxylate environmentally friendly plasticizers.

VI Technical Services

A complete set of process data packages can be provided for on-site technical services such as catalyst loading, plant start-stop, calibration, etc.