第三届中国 烷基化油技术与市场研讨会 3<sup>rd</sup> China AlkylateTechnologies &Market Conference 2017

中国 烟台 2017.7.26-7.27 Yantai China







# 第三届中国烷基化油技术与市场研讨会 3<sup>rd</sup> China Alkylate Technologies & Market Conference

烟台 Yantai 7.26-7.27

#### <u>会议背景</u>

为改善大气质量、推动城市雾霾治理,中国政府加快油品升级步伐。2017年1月1日起,全国已经开始供应国 V 标准汽油。国 VI 汽油标准也已制定完成并发布,将于 2019年开始分阶段实施。

汽油标准升级对于硫含量、烯烃含量和芳烃含量等指标的加严,将大幅拉动烷基化油的 需求。亚化咨询数据显示,烷基化油在汽油中的最佳添加比例将从国 V 标准时的 6%提 升至国 VI 标准时的 8%-10%。2017 年中国国 V 汽油需求量约为 13,000 万吨,预计烷基 化油需求量约 780 万吨;2019 年中国国 VI 汽油需求量预计将达到 15,000 万吨左右,届 时烷基化油的需求量约 1,200-1,500 万吨。

据亚化咨询统计,中国已经投产了数十套烷基化油装置,合计产能1000万吨/年以上; 此外中国还有数十套的拟在建装置,合计产能超过1000万吨/年。新型环境友好的烷基 化技术,如低温硫酸法烷基化技术、离子液体烷基化技术、固体酸烷基化技术等纷纷实 现了工业化应用,并有望在未来新建项目的工艺选择中获得更多的青睐。

但是,烷基化油的发展也面临着多方面的挑战。第一,中国现有的烷基化装置以传统的 液体酸烷基化工艺为主,随着环保法规日趋严格,亟需高效、低成本的废酸处理工艺或 进行新型环境友好烷基化工艺改造。第二,中国烷基化装置受 C4 原料不足制约,长期 面临着原料成本较高和装置开工率较低的局面。随着烷基化装置的密集上马,未来 C4 原料争夺或更加激烈。需要深度开发和增值利用 C4 资源,包括石化和煤化工装置副产, 以及海外进口碳四,满足有成本优势的原料供应,从而降低烷基化油成本和提高产品的 经济效益。第三,中石化、中石油等炼油企业自建烷基化装置将导致外购烷基化油需求 量减少,未来烷基化油市场竞争或将承受较大的价格压力。 **由亚化咨询主办的第三届中国烷基化油技术与市场研讨会将于2017年7月26-27日 在烟台召开。**会议将探讨"十三五"中国汽油标准升级趋势与升级方案;烷基化油 供需格局现状与未来展望;不同烷基化工艺经济性分析;新型环境友好烷基化技术 开发与工业化应用;C4原料市场与供应展望;烷基化油生产的安全和环保问题等。

## 会议主题

 "十三五"中国汽油标准升级趋势与升级 方案

- 2. 烷基化油供需格局现状与未来展望
- 3. 不同烷基化工艺经济性分析
- 4. 新型烷基化技术工业化装置运行情况
- 5. 多重承压下烷基化装置盈利方案
- 新建烷基化装置投资规划、工艺选择与经济性分析
- 7. 新型环境友好烷基化技术进展与工业化 应用前景
- 8. 现有烷基化装置的升级改造
- 9. C4 原料市场与供应展望
- 10. 烷基化废酸再生处理技术进展与应用
- 11. 工业考察参观

## 日程安排

2017年7月	26日	周三
08:30~16:30	工业考	家
2017年7月	26 日	周三
16:00~21:00	会前注	È册
2017年7月	27日	周四
08:30~12:30	演讲排	2告
12:30~14:00	自助午	二餐与交流
14:00~18:30	演讲排	2告
18:30~20:00	招待晚	的宴



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#### English-Chinese Simultaneous Interpretation will be provided.

#### **Background**

In order to improve air quality and to promote urban smog treatment, the Chinese government is speeding up the pace of oil products upgrading. The CN-V gasoline has been supplied nationwide since Jan 1<sup>st</sup> 2017. While the CN-VI gasoline standard has been defined and released, and will be implemented by phases since 2019.

The upgrading of gasoline standards tightens index limits for sulfur content, olefin content, aromatics content, etc., which will greatly improve alkylate demand. ASIACHEM's data shows that, the optimal addition ratio of alkylate is 8%-10% in CN-VI gasoline compared with 6% in CN-V gasoline. In 2017, the national CN-V gasoline and alkylate demands in 2017 will be 130Mt and 7.8Mt, respectively. While in 2019, China's gasoline and alkylate demands in 2019 will be 150 Mt and 12-15 Mt, respectively.

According to ASIACHEM's statistics, dozens of alkylate units have been put into operation in China, with total capacity of more than 10Mt/a; besides, the other dozens of alkylate units are planned or under construction in China, with total capacity of over 10Mt/a. Novel environment-friendly alkylation technologies, such as low temperature sulphuric acid alkylation, ionic liquid alkylation, solid acid alkylation, etc., have achieved industrial application and are expected to attract more favor in the future.

However, the development of alkylate also faces challenges. Firstly, alkylation units in China mainly use traditional liquid acid alkylation technologies. The increasingly stringent environmental requirements badly needs efficiency & low cost spent acid treatment technologies or the revamping by novel environment-friendly alkylation processes. Secondly, alkylation units in China suffer from raw material of C4 resources, leading to high raw material cost and low operation rate. With intensive upcoming alkylation units, the competition of C4 resources may become more intense in the future. It's necessary to deeply develop and value-added utilize C4 resources, including by-products from petrochemical and coal chemical units, as well as C4 imported from abroad, to satisfy supply of raw material with cost advantage, thereby reducing alkylate cost and improving economic benefit of product. Thirdly, oil refineries including SINOPEC and CNPC is building their own alkylation units, and it will result in the decrease of outsourcing alkylate, leading to a greater price pressure for alkylate market in the future.

The 3<sup>rd</sup> China Alkylate Technologies & Market Conference will organized by ASIACHEM on Jul 26<sup>th</sup>-27<sup>th</sup> 2017 in Yantai. The upcoming conference will discuss China's gasoline standard upgrading trends & scheme during 13<sup>th</sup> FYP; situation & prospect of alkylate supply & demand pattern; economic analysis of various alkylation processes; development & industrial applications of novel environmental-friendly alkylation technologies; C4 feedstock market & supply prospect; safety & environmental issues of alkylate production, etc.

Preliminary Agenda	
Jul.26, 2017	Wednesday
08:30~16:30	Industrial visiting
Jul.26, 2017	Wednesday
16:00~21:00	Pre- conference Registration
Jul.27, 2017	Thursday
08:30~12:30	Speech
12.20 14.00	Networking Lunch
12.30~14.00	
14:00~18:30	Speech
	-
18:30~20:00	Banquet
	Jul.26, 2017 08:30~16:30 Jul.26, 2017 16:00~21:00 Jul.27, 2017 08:30~12:30 12:30~14:00

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treatment technologies

11. Industrial visiting

8. Upgrading & revamping of existing alkylation plants

10. Progress & application of spent acid regeneration

9. C4 feedstock market & supply prospect