Mitsubishi Chemical  \(\gamma\)-Butyrolactone & N-Methylpyrrolidone Technology

\(\gamma\)-Butyrolactone (GBL) & N-methylpyrrolidone (NMP)

GBL and NMP are major derivatives of Maleic anhydride. GBL & NMP is industrially utilized as solvent including Semiconductor and Lithium ion battery production, and Intermediate of Pharmaceutical.

Introduction of Mitsubishi GBL & NMP Technology

For more than 40 years, Mitsubishi Chemical (MCC) has run GBL & NMP business (Production and Sales). MCC has developed its own State-of-Art technology and offered Process Technology (up to 20,000 ton/year as single line plant for both GBL and NMP) together with Mitsubishi high performance catalyst (for GBL). MCC currently runs 18,000 ton/year GBL & 15,000 ton/year NMP plant in Japan.

Feature of Mitsubishi GBL and NMP process

Mitsubishi GBL & NMP process uses Maleic anhydride as feedstock. Features of this process are as follows;
(1) Incomparable high quality of the product and meets any requirement of various applications
(2) Cost competitive process
(3) Stable and easy operation process

Chemistry of this process

GBL

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\text{Maleic Anhydride} + 3\text{H}_2 \rightarrow \text{GBL}
\]

NMP

\[
\text{GBL} + \text{CH}_3\text{NH}_2 \rightarrow \text{NMP}
\]
World GBL and NMP Plant Capacity
In 2012, world GBL and NMP production capacity is around 370,000 ton/year and 275,000 ton/year respectively.

For further detailed, please visit our homepage at:
http://www.mcc-license.com