

## **ABSTRACT**

*PT. Pertamina UPPJ is one company that is engaged in the production, distribution and marketing of lubricants. Tough competition with many similar companies, to encourage companies to increase market share continuously. One of the method is with improving product quality lubricants continuously and headed to the zero defect*

*Quality improvement and defect prevention to be done on product Mesran Super with a volume of 4 liters. Selection of products based on the highest percentage of wet cardboard in January-August 2012. Pesentase number of defects in this product has a flat above 1% in the period. Therefore, it will be improved quality with Six Sigma methods to prevent and reduce the level of defects in the product.*

*Stages of the six sigma method consists of define, measure, analyze, improve and control (DMAIC). In the define phase, there are 2 for CTQ identified potential effect on product quality. In the measure phase is known that the production process is not stable and the capabilities of the process is shown by the sigma level of 4.0388 with DPMO 6126.39. Based on the analyze phase found 5 potential cause of failure is a priority for improvement. Proposed improvements are given to determine maximum number of optimal stacking and use racking, the determination of the optimal composition and the use of manual wrapping LOBP-1, the determination of the amount of stack is lifted by a forklift, and the determination of the maximum speed of the forklift inside and outside the building,*

**Key words : Quality, Six sigma, Potential CTQ, DPMO**