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Vinyl Institute,

CMAI was asked to give an estimate of how much mercury cell chlorine produced in the U.S. could end up in PVC. Using CMAI's capacity database, the U.S. has a total chlorine capacity of about 12,389,000 metric tons per year of which approximately 816,000 metric tons per year of capacity is Mercury cell technology. Therefore, about 6.6 percent of total U.S. chlorine capacity is mercury cell technology. However, not all mercury cell produced chlorine goes into producing PVC or other Vinyl products. Each PVC plant is slightly different, but CMAI in this analysis used a conversion factor of 0.595 tons of chlorine needed to produce one ton of PVC.

In 2004, the U.S. produced around 6,480,000 metric tons of PVC. Therefore, about 3,823,200 metric tons of chlorine was used to produce this amount of PVC.

Of the roughly 816,000 metric tons per year of chlorine, which could be produced via the mercury cell process, a small percentage is estimated to be used to make Vinyl products.

CMAI has attached a spreadsheet with the mercury cell plants that are left operating in the U.S. Of these plants, it is CMAI's estimate that only chlorine produced via the mercury cell process at Lake Charles goes into making Vinyl products and it is very probable that not all of this chlorine goes into making Vinyl. For example the Lake Charles facilities has the capacity to produce around 1,180,000 metric tons per year of chlorine of which 180,000 tons per year is mercury cell. Therefore 15.25 percent of the chlorine produced at this site is via mercury cell. More than likely the chlorine from the mercury cell process at this site is added to the chlorine produced by the diaphragm process before it goes to any end use segment.



If all the chlorine produced at Lake Charles by the Mercury cell process goes into producing a Vinyl product, then we have the approximate maximum amount of PVC produced by mercury cell chlorine being around 4.7 percent. Should the Lake Charles plant mix their mercury cell produced chlorine with their other produced chlorine as we suspect, then the minimum mercury cell chlorine that goes into PVC would be around 1.4 percent per year and is probably the closer number to reality.

Data calculation sheet is attached.

Best regards,

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