US EPA ARCHIVE DOCUMENT

TESTING METHODS

Standard Evironmental Protection Agency (EPA) reference methods were used to conduct these tests and are indicated in Table I.

TABLE I. Tested Constituents and Applicable EPA Reference Methods.

Constituent	EPA Reference Method
Particulates	Method 5
Sulfur Dioxide and Sulfuric Acid Mist	Method 8
Oxides of Nitrogen	Method 7e
Carbon Monoxide	Method 10
Metals of Concern	Method 29

These reference methods are located in 40 CFR 60, Appendix B.

SUMMARY OF RESULTS

EMISSION RESULTS

Tables II through VI summarizes the results of these tests according to the different charges placed in the DM furnace.

TABLE II. Clean Aluminum Inflator Casings Emission Results.

Constituent	Emission Rate (pounds per hour)
Particulates	0.080
Oxides of Nitrogen	0.415*
Carbon Monoxide	4.34*
Sulfur Dioxide	0.00
Sulfuric Acid Mist	0.24
Metals of Concern	
Aluminum	1.17×10^{-5}
Barium	3.04×10^{-7}
Boron	Not Measured**
Cadmium	Below Detection Limit*
Chromium	3.33×10^{-7}
Copper	Below Detection Limit*
Iron	8.76×10^{-6}
Magnesium	2.63×10^{-6}
Molybdenum	Below Detection Limit*
Sodium	1.93×10^{-6}
Nickel	8.76×10^{-7}
Lead	Below Detection Limit*
Zinc	1.64×10^{-6}

*Average of two runs **Not requested by Morton *Detection limits are found in Appendix C

TABLE III. Discharged Driver's Side Inflator Casings Emission Results.

Constituent	Emission Rate (pounds per hour)
Particulates	0.025
Oxides of Nitrogen	0.45
Carbon Monoxide	20.2
Sulfur Dioxide	0.72
Sulfuric Acid Mist	0.048
Metals of Concern	
Aluminum	1.21×10^{-5}
Barium	2.78×10^{-7}
Boron	Not Measured**
Cadmium	Below Detection Limit*
Chromium	3.17×10^{-7}
Copper	Below Detection Limit*
Iron	5.11×10^{-6}
Magnesium	2.56×10^{-6}
Molybdenum	Below Detection Limit*
Sodium	1.89×10^{-5}
Nickel	8.34×10^{-7}
Lead	Below Detection Limit*
Zinc	1.40×10^{-6}

**Not requested by Morton *Detection limits are found in Appendix C

TABLE IV. Live Driver's Side Inflator Casings Emission Results.

Constituent	Emission Rate (pounds per hour)
Particulates	0.072
Oxides of Nitrogen	0.33
Carbon Monoxide	16.9
Sulfur Dioxide	28.4
Sulfuric Acid Mist	0.099
Metals of Concern	
Aluminum	7.52×10^{-6}
Barium	Below Detection Limit*
Boron	2.58×10^{-4}
Cadmium	Below Detection Limit*
Chromium	9.67×10^{-8}
Copper	Below Detection Limit*
Iron	5.53×10^{-6}
Magnesium	2.63×10^{-6}
Molybdenum	Below Detection Limit*
Sodium	2.63×10^{-5}
Nickel	6.98×10^{-7}
Lead	Below Detection Limit*
Zinc	1.34×10^{-6}

*Detection limits are found in Appendix C

TABLE V. Live Passenger's Side Inflator Casings Emission Results.

Constituent	Emission Rate (pounds per hour)
Particulates	0.018
Oxides of Nitrogen	0.38
Carbon Monoxide	14.5
Sulfur Dioxide	0.00
Sulfuric Acid Mist	0.081
Metals of Concern	
Aluminum	1.55×10^{-6}
Barium	Below Detection Limit*
Boron	1.55×10^{-4}
Cadmium	Below Detection Limit*
Chromium	3.03×10^{-7}
Copper	Below Detection Limit*
Iron	9.12×10^{-6}
Magnesium	3.10×10^{-6}
Molybdenum	Below Detection Limit*
Sodium	3.81×10^{-6}
Nickel	9.16×10^{-7}
Lead	Below Detection Limit*
Zinc	1.83×10^{-6}

*Detection limits are found in Appendix C

TABLE VI. Hybrid Inflator Casings Emission Results.

Constituent	Emission Rate (pounds per hour)
Particulates	0.033
Oxides of Nitrogen	Not Measured**
Carbon Monoxide	Not Measured**
Sulfur Dioxide	0.00
Sulfuric Acid Mist	0.021
Metals of Concern	
Aluminum	7.41×10^{-6}
Barium	Below Detection Limit*
Boron	Not Measured**
Cadmium	Below Detection Limit*
Chromium	2.39×10^{-7}
Copper	Below Detection Limit*
Iron	7.81×10^{-6}
Magnesium	2.39×10^{-6}
Molybdenum	Below Detection Limit*
Sodium	2.22×10^{-6}
Nickel	Below Detection Limit*
Lead	Below Detection Limit*
Zinc	1.48×10^{-6}

**Not requested by Morton *Detection limits are found in Appendix C

PROCESS DATA

Normal production was maintained at the plant during these tests. Production rates are confidential and may only be determined by accessing plant records.