



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

APR 23 1998

Mr. Daniel T. McDonald
Director of Material Flow and Logistics
Saturn Corporation
100 Saturn Parkway
P.O. Box 1500
Spring Hill, TN 37174-1500

Dear Mr. McDonald:

This in response to your letter dated November 10, 1997, requesting clarification on the applicability of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) to your product, "Aluminum Dross". Specifically, you are requesting confirmation that your material does not meet the Division 4.3 (Dangerous When Wet) hazard class defining criteria in Part 173 of the HMR.

With the exception of explosives, it is the shipper's responsibility to properly classify a hazardous material. See § 173.22. This office does not normally perform this function. However, based on the test results provided in your letter, it would appear that your aluminum dross, would not meet the definition of a Division 4.3 (Dangerous When Wet) material based on your test data, which appears to conform to the procedure specified in Appendix E of 49 CFR Part 173, 1996 edition. Therefore, if your company's product is not hot nor wet and does not meet any other hazard class definition in Part 173, it is not subject to the HMR.

I hope this information is helpful. Should you have further questions, do not hesitate to contact us.

Sincerely,

For Hattie L. Mitchell, Chief
Regulatory Review and Reinvention
Office of Hazardous Materials Standards

LaValle
File 173.124, 173.12-
SC 146

November 10, 1997
Page 1 of 2



Mr. Edward T. Mazzullo - DHM - 10
RSPA/US-DOT
400 7th Street SW
Room 8100
Washington, D.C. 20590

Dear Mr. Mazzullo:

According to DOT regulations definition of hazard class 4.3 packing group II under 49 CFR 173.124 © 173.125 (d) (2) aluminum dross is considered a hazardous material. Currently, Saturn, a subsidiary of General Motors, is shipping aluminum dross from it's facility located in Spring Hill, Tennessee, under an exemption.

Saturn has had representative samples of aluminum dross tested, according to 49 CFR Part 173 Appendix E, by SouthEastern Analytical Services, Inc. Their findings (see attachments I and II) indicate Saturn's aluminum dross does not meet the test criteria contained in 73.124 © and 173.125 (d) (2). Therefore, Saturn believes that the aluminum dross being shipped from its facility should be considered as non-hazardous material.

As a responsible corporate citizen, Saturn is dedicated to protecting human health, natural resources and the global environment and has always prided itself in complying with environmental laws. Saturn requests a written opinion in the hopes that it can begin shipping aluminum dross as a non-hazardous material.

For additional questions or comments, contact Gary Stanley (Saturn Material) at 931/486-6053 or Pat Van Ryckeghem (Saturn Safety) at 931-486-6009.

November 10, 1997
page 2 of 2.



Mr. Edward T. Mazzullo - DHM - 10
RSPA/US-DOT
400 7th Street SW
Room 8100
Washington, D.C. 20590

Please forward your written reply to:

Daniel T. McDonald
Director of Material Flow and Logistics
Mail Code 371-995-K12
100 Saturn Parkway
P.O. Box 1500
Spring Hill, TN 37174

Sincerely,

A handwritten signature in black ink, reading "Daniel T. McDonald". The signature is fluid and cursive, with the first name "Daniel" and last name "McDonald" clearly legible.

Daniel T. McDonald
Director of Material Flow and Logistics

cc:

Terrence P. Conway, GM Legal
Pat Van Ryckeghem, Saturn Safety
Todd Irwin, Saturn Powertrain
Dick Wentworth, NAO Logistics



1004 OSTER DR., SUITE 1 • HUNTSVILLE, ALABAMA 35816 • 205 / 536-8110

April 7, 1997

Mr. Michael J. Kowalski
Program Manager - Saturn Corporation
Castrol Industrial
c/o Saturn Corporation
100 Saturn Parkway
P. O. Box 1500
Mail Drop J-18
Springhill, TN 37174

Dear Mr. Kowalski,

This letter reports the aluminum by-product testing for two samples received on March 24, 1997. This work was performed under authorization from your letter dated March 21, 1997.

The samples were tested according to 49CFR Part 173, Appendix E. The results are as follows:

Test Parameter	Samples	
	<u>Die Cast Dross</u>	<u>Lost Foam Dross</u>
Test Section 4.3.a.1	Passes	Passes
Test Section 4.3.a.2	Passes	Passes
Test Section 4.3.a.3	Passes	Passes
Test Section 4.3.a.4	Passes	Passes

Both samples pass the referenced tests. This means that neither sample reacts with water to develop gases which may be flammable or toxic.



If you have any questions on these results, please call me at 1-800-239-SEAS.

Sincerely,

A handwritten signature in black ink, appearing to read "GEG", followed by a long horizontal flourish.

Guy E. Graves, Ph.D.
Vice President

GEG/ktf



1004 OSTER DR., SUITE 1 • HUNTSVILLE, ALABAMA 35816 • 205 / 536-8110

May 12, 1997

Mr. Pat Van Ryckeghem
Saturn Corporation
100 Saturn Parkway
P. O. Box 1500
Springhill, TN 37174

Dear Mr. Ryckeghem,

You have requested additional information on the aluminum dross testing results which were reported on April 7, 1997. It is my understanding that you wish to assess differences in the dross samples in a quantitative manner based on the tests run (49 CFR Part 173 Appendix E). It is not possible to do this using this test but the following is all of the data that we have.

Test 4.3.a.1. A small quantity of test material is placed in a trough of distilled water at 20 deg. C. It is noted whether any gas is evolved and if it spontaneously ignites.

Both the Die Cast Dross and Lost Foam Dross evolved no gas. We estimate that we could see down to an evolution of 1 cc of gas. Therefore both samples evolved less than 1 cc of gas.

Test 4.3.a.2. A small quantity of test material is placed in the center of a filter paper which is floated flat on the surface of distilled water at 20 deg. C. in a 100 mm diameter evaporating dish. It is noted whether any gas is evolved and if it spontaneously ignites.

Both the Die Cast Dross and Lost Foam Dross evolved no gas. We estimate that we could see down to an evolution of 1 cc of gas. Therefore both samples evolved less than 1 cc of gas.

Test 4.3.a.3. The test material is made into a pile approximately 2 cm high and 3 cm in diameter with an indentation on the top. A few drops of water are added to the hollow. It is noted whether any gas is evolved and if it spontaneously ignites.

Both the Die Cast Dross and Lost Foam Dross evolved no gas. We estimate that we could see down to an evolution of 1 cc of gas. Therefore both samples evolved less than 1 cc of gas.

Test 4.3.a.4. Water is put into the dropping funnel and 25 g of the material is weighed and placed in a conical flask. The tap of the dropping funnel is opened to let the water into the conical flask and a stop watch is started. The volume of gas evolved is measured by any suitable means. The time taken for all the gas to be evolved is noted.

Both the Die Cast Dross and Lost Foam Dross evolved no gas. We estimate that we could see down to an evolution of 1 cc of gas. Therefore both samples evolved less than 1 cc of gas.

This test could not differentiate between dross samples due to no evolution of gas by either sample.

If you have any questions, please call me at 1-800-239-SEAS.

Sincerely,



Guy E. Graves, Ph.D.
Vice President

GEG/ktf
LG051297-1

Saturn Corporation
100 Saturn Parkway
P.O. Box 1500
Spring Hill, TN 37174-1500



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