



U.S. Department
of Transportation
**Research and
Special Programs
Administration**

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

JUL 31 2002

Mr. Bill Erickson
Operations Manager
Johnson Matthey, Inc.
1397 King Road
West Chester, PA 19380

Ref. No. 02-0162

Dear Mr. Erickson:

This is in response to your letter dated May 24, 2002, requesting clarification regarding the selection of a proper shipping name under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you asked whether your nickel catalyst material can be classified as "Self-heating solid, inorganic, n.o.s., 4.2, UN3190.

For a material not specifically identified by name in the Hazardous Material Table (HMT), the HMR requires that the material be described by the shipping name that "most appropriately describe" the material. In some cases, more than one shipping name could "most appropriately describe a material." Under § 173.22, it is the shipper's responsibility to properly classify and describe a hazardous material. This office generally does not perform this function. However, we provide assistance when we have the information available.

In your letter, you stated that the third party laboratory testing performed on the material was inconclusive due to the temperature of the test sample climbing rapidly from ambient to over 300 °C within the first three minutes. You further stated that the temperature continued to climb to over 400 °C within 10 minutes, where it remained for approximately 30 minutes before dropping back down to ambient temperature two hours after the start of the test.

In the HMR, § 173.124(b) defines a Division 4.2 (Spontaneously Combustible) as being one of the following:

- (1) A pyrophoric material. A pyrophoric material is a liquid or solid that, even in small quantities and without an external ignition source, can ignite with five (5) minutes after coming in contact with air when tested according to UN Manual of Test and Criteria.



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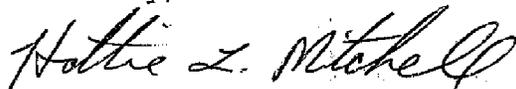
173.22

- (2) A self-heating material. A self-heating material is a material that, when in contact with air and without an energy supply, is liable to self-heat. A material of this type which exhibits spontaneous ignition or if the temperature of the sample exceeds 200 °C. (392 °F) during the 24-hour test period when tested in accordance with the UN Manual of Tests and Criteria, is classed as a Division 4.2 material.

Therefore, based on the information you provided, in addition to the fact that your material is heating up to a temperature of over 300 °C within the first three minutes upon contact with air, it is the opinion of this office that the proper shipping name "Pyrophoric solid, inorganic, n.o.s., 4.2, UN3200" most appropriately describes your nickel catalyst material.

I trust this satisfies your inquiry. Please contact us if we can be of further assistance.

Sincerely,



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



Johnson Matthey

Beets
§ 173.10f
Classification
02-0162

May 24, 2002

Ed Mazzullo
Director of Office of Hazardous Material Standards
DHM-10 USDOT/RSPA
400 7th Street Southwest
Washington, DC 20590

Dear Mr. Mazzullo:

My company, Johnson Matthey Inc., is seeking an interpretation on third party laboratory testing which Stresau Laboratories Inc. performed on nickel catalyst material. The testing was inconclusive, however, Dr. Spence Watson of the DOT has recommended we classify this material as Division 4.2, Packing Group II - Self-heating solid. Would you please let me know if your Office concurs.

Thank you for your help in this matter. If you have any further questions, please contact me at 610-232-1953.

Sincerely,

Bill Erickson
Operations Manager
Johnson Matthey Inc.
Fuel Cells - GPT
1397 King Road
West Chester, PA 19380

Enclosure