



U.S. Department  
of Transportation

**Research and  
Special Programs  
Administration**

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

FEB 26 1998

Mr. Greg Lemley  
Sales  
ASi International  
4595 Van Epps Road  
Cleveland, OH 44131

Dear Mr. Lemley:

This is in response to your letter dated November 14, 1997, requesting clarification on the applicability of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) to your product, "Magnesium Ferro Silicon." Specifically, you are requesting confirmation that your material does not meet the Division 4.3 (Dangerous When Wet Material) hazard class defining criteria in Part 173 of the HMR.

Under § 173.22, it is the shipper's responsibility to properly classify a hazardous material. This office does not normally perform this function. However, based on the test results provided in your letter, your product, "Magnesium Ferro Silicon", meets the Division 4.3 (Dangerous When Wet Material) hazard class guidelines in the UN Manual of Tests and Criteria. Your test results report the maximum evolution rate of 1.6 liters per kilogram of substance per hour which exceeds the UN Manual of Tests and Criteria, Part III, Section 33 maximum evolution rate of 1 liter per kilogram of substance per hour for Division 4.3 material. Therefore, your product, "Magnesium Ferro Silicon" is subject to the HMR.

I hope this answers your inquiry. If you need additional assistance, do not hesitate to contact us.

Sincerely,

Delmer F. Billings  
Chief, Regulations Development  
Office of Hazardous Materials Standards



ASi International

Booth  
172.101 (m)  
SC: 170, 174

November 14, 1997

Alan Roberts  
Assistant Administrator for Hazardous Materials Safety  
Department of Transportation  
400 7th Street SW  
Washington, DC. 20590-001

**FERRO SILICON LETTER OF INTERPRETATION**

Our company imports silicon based material ( Magnesium Ferro Silicon) from Brazil into the port of Baltimore. We are currently shipping this material as a hazardous product according to 49 CFR part 173. We have sent this material to an independent testing laboratory to determine if it is hazardous to ship.

We would like to get this material or a letter stating this material can be shipped as non-hazardous.

All our tests indicate that this product is not hazardous according to this regulation. We have included the test results from the independent lab. We deem it not hazardous & will take all responsibility herein for shipping said material.

I have addressed this letter to you as some of the US Ferro silicon producers have said that this is where they have sent their requests for the same ruling. If you are not the person whom this letter should be sent to, please return to me so that I can send it to the appropriate individual.

Please notify me if there is anything else that you need from me to process this request.

Sincerely,

Greg Lemley  
Sales



# Andrew S. McCreath & Son, Inc.

ANALYTICAL AND CONSULTING CHEMISTS

REC'D JUN 09 1997

610 Willow Street  
P.O. Box 1453  
Harrisburg, PA 17105-1453  
Telephone: (717) 238-9331  
Telex: 84-2321  
Fax: (717) 238-4843

June 5, 1997

ASI International  
4595 Van Epps Road  
Cleveland, Ohio 44131

Gentlemen:

The sample received from you on May 22, 1997, identified as: Magnesium Ferro Silicon, was tested in accordance with DOT Standard 173, Appendix E, Division 4.3 (Dangerous when wet material). Results are as follows:

\* test sample weight = 2.5 gm /  
sample

## Spontaneous Ignition Test

Division 4.3 a (1)  
Division 4.3 a (2)  
Division 4.3 a (3)

No Spontaneous Ignition  
No Spontaneous Ignition  
No Spontaneous Ignition

## Gas Evolution Measurement

Total volume in Ml each hour.

| <u>Time Interval</u> | <u>Test 1</u>   | <u>Test 2</u>   | <u>Test 3</u>   |
|----------------------|-----------------|-----------------|-----------------|
| 1 Hour               | 7.00 Ml         | 8.00 Ml         | 5.50 Ml         |
| 2 Hour               | 9.50 Ml         | 10.75 Ml        | 7.50 Ml         |
| 3 Hour               | 11.00 Ml        | 11.50 Ml        | 8.50 Ml         |
| 4 Hour               | 12.25 Ml        | 11.75 Ml        | 9.50 Ml         |
| 5 Hour               | 13.50 Ml        | 12.50 Ml        | 10.00 Ml        |
| 6 Hour               | 14.50 Ml        | 13.00 Ml        | 10.75 Ml        |
| 7 Hour               | 16.00 Ml        | 13.75 Ml        | 12.00 Ml        |
| 24 Hour              | <u>21.00 Ml</u> | <u>15.75 Ml</u> | <u>14.00 Ml</u> |
| Total                | 21.00 Ml        | 15.75 Ml        | 14.00 Ml        |

Weights of  
Test Samples?  
I called Mr. Levey  
for test sample  
weights 12/14/87  
\* 25 grams / Sample  
Pluere 12/17/87

Page No. 2  
June 5, 1997  
DOT Test

Maximum Rate - 1.6 liter/hour/kilogram

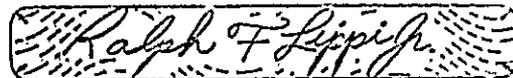
Average Rate - 0.42 liter/hour/kilogram after 7 hours

Average Rate - 0.14 liter/hour/kilogram after 24 hours

Note: The evolved gas was flammable.

Yours very truly,

ANDREW S. McCREATH & SON, INC.

A rectangular stamp containing a handwritten signature in cursive script that reads "Ralph F. Lippin". The signature is written in dark ink on a light background within the stamp's border.