

MATERIAL SAFETY DATA SHEET



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1-800-553-0111 or 1-216-694-5300
Emergency Number:
Chemtrec 1-800-424-9300

Section 1 - Product:

Product Name: FERROSILICON BRIQUETTE
Formula: FeSi CAS No. 8049-17-0

Section 2 - Physical Data:

Form: Product is in a briquette form.
Solubility: Product is insoluble in water.
Reactivity: Product may react slightly with water.

Section 3 - Composition:

Typical Analysis (Wt % Range)
Silicon 45-85%
Iron 15-55%
Chromium less 0.5%
Ca O 14-12%
Aluminum (Al)+Al₂O₃ 11-9%

Section 4 - Hazards:

Part A - Air Contaminants

No permissible exposure limits or threshold limit values are known for Ferrosilicon. Values for ingredients in the product may be appropriate.

<u>Ingredient</u>	<u>Pel*</u>	<u>TLV**</u>
Chromium	1	.5
Silicon	10	10
Iron	10	5
Ca O	5	2
Aluminum	15	10

*Permissible Exposure Limit (mg/m³) OSHA 29CFR 1910
**Threshold Limit Value (mg/m³) American Conference of Governmental Industrial Hygienists.

Part B - Short Term Exposure

Ferrosilicon is a low toxicity in briquette form. Overexposure to dusts may irritate eye, nose or throat.

Part C - Long Term Exposure

Long term exposure to dust or to fumes emitted from the melting of ferrosilicon may cause obstructive lung disease such as chronic bronchitis.

Other Precautions: These products contain chromium in the metallic state. The International Agency for Research on cancer has determined that chromium and certain compounds are "causally associated with cancer in humans" but "the compounds responsible for the carcinogenic effect in humans cannot be specified." This requires that chromium in all forms be identified as carcinogenic under OSHA (29 CFR1910.1200). The American Conference of Governmental Industrial Hygienists has reviewed the available data and concluded that chromium metal is not carcinogenic to humans.

THERE IS NO DATA TO INDICATE THAT FERROSILICON IS A CARCINOGEN.

Part D - Fire Hazard

Briquette ferrosilicon is not flammable; very fine dust (minimum 325 mesh) may present an explosion hazard when airborne.

Class D Fires: Use dry chemical, sand or CO₂ to smother fire. Fire may be isolated and allowed to burn itself out. Do not disturb burning metal while extinguishing the fire.

Section 5 - Precautions:

- A. Atmosphere
Avoid generation of dust and collect fumes emitted by melting of ferrosilicon in compliance with OSHA regulations.
- B. Spill and Leak Information
Fine material should be swept or vacuumed. Spill or leak of lump material presents no hazard. Disposal should be in accordance with regulations that apply. Avoid placing wet material in sealed containers.
- C. Employee
Respirators, that are NIOSH approved in accordance with 29CFR 1910.134 to control inhalation of fine dust are necessary when exposure limits must be exceeded due to inadequate ventilation. Industrial Hygiene monitoring is required to establish exposure levels.

Eye protection should conform with local safety regulations.

REFERENCES:

1. OSHA (29CFR 1910) Department of Labor
2. Documentation of the Threshold Limit Values, Fourth Edition, 1980...
3. Third Annual Report on Carcinogens, National Toxicology Program, U.S. Department of Commerce.

IMPORTANT NOTICE:

This information relates only to the specific product or material designated and may not be valid for such product or material used in combination with any other material or products or any process. The information is, to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information and the suitability of the materials for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information, nor do we offer any warranty against patent infringement.