GERDAU AMERISTEEL

MATERIAL SAFETY DATA SHEET

STEEL MILL ELECTRIC ARC FURNACE DUST

SECTION I

Manufacturer's Name
Gerdau AmeriSteel

Contact
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Director, Safety & Health

Address
P. O. Box 31328
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Product
Steel Mill Electric Arc Furnace Dust

Emergency Telephone Number
813/286-8383

Telephone Number for Information
813/286-8383

Date Prepared
02/16/93

Synonyms
Baghouse Dust, K061

Family
Inorganic Compounds

SECTION II – HAZARDOUS CONSTITUENTS

Dust may contain the following:

Constituent[a]	OSHA PEL (mg/m^3)	ACGIH TLV (mg/m^3)	% (Range)	CAS #
Calcium oxide	5	2	0-35	1305-78-8
Iron oxide[b]	10[c]	5	0-35	1309-37-1
Zinc[d]	5	5	0-25	1314-13-2
Silica dioxide	0.05[e,f]	0.05[e, f]	0-15	14464-46-1
Manganese[g]	1	1	5-10	7439-96-5
Magnesium[d]	10[c], 5[e]	10	5-10	1309-48-4
Alumina	15[c], 5[e]	10	0-5	1344-28-1
Chromium III[h]	0.05	0.05	0-5	7440-47-3
Phosphorus pentoxide	-	-	0-5	1314-56-3
Sulfur dioxide	5	5.2	0-5	7446-09-5
Calcium fluoride	-	1.6	0-5	---
Fluorine	0.2	0.2	0-5	7782-41-4
Copper[d]	0.1	1.6	0-5	7440-50-8
Molybdenum[i]	5	5	0-5	7439-98-7
Tin[j, k]	0.1	0.1	0-5	7440-31-5
Vanadium[d, e]	0.05[l]	0.05[l]	0-5	1314-62-1
Cobalt	0.05	0.05	0-5	7440-48-4
Titanium	10[c], 5[e]	10	0-5	13463-67-7
Potassium	-	-	0-5	1310-58-3
Arsenic	0.01[n]	0.2	0-5	7440-38-2
Barium	0.5	0.5	0-5	7440-39-3
Cadmium[o]	0.1	0.5[p]	0-5	1306-19-0
Lead	0.05	0.15	0-5	7439-92-1
Tungsten[f, i]	1	1	0-5	---
Mercury[k]	0.1[p]	0.1	0-5	---
Nickel	1	1	0-5	7440-02-0
Selenium	0.2	0.2	0-5	7782-49-2
Silver	0.01	0.01	0-5	7440-22-4

Section II - Hazardous Constituents Continued

Notes: (a) Elemental or oxide. Constituents are listed as elements unless significant differences exist for oxide in PEL and/or TLV.

(b) Fume, as Fe	(g) Fume, as Mn	(l) Vanadium pentoxide, as $V_2 0_5$
(c) Total particulate	(h) Compounds, as Cr	(m) Inorganic and elemental, as Co
(d) Fume	(I) Soluble compounds	(n) Inorganic compounds
(e) Respirable fraction	(j) Organic compounds	(o) Cadmium oxide fume, as Cd
(f) Lowest PEL	(k) Skin exposure may be possible	(p) Ceiling

Many substances do not have a unique exposure limit. The absence of it does not lessen consideration for exposure risk. In the absence of specific information, professional judgment may be required.

SECTION III – PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Point - ±5000°F
Melting Point - ±2800°F
Vapor Pressure (mm Hg**) -** N/A
Specific Gravity (H_2O = 1**) -** 0.8-5.5
Vapor Density (Air = 1**) -** N/A
Evaporation Rate (Butyl Acetate = 1**) -** N/A
Solubility in Water - Insoluble
Appearance and Odor - Brown, odorless, granular or powder

SECTION IV - PHYSICAL AND CHEMICAL HAZARDS

Flash Point - Not Flammable
LEL - N/A
Extinguishing Media - N/A
UEL - N/A
Special Fire Fighting Procedures - N/A
Unusual Fire and Explosion Hazards - N/A

SECTION V - REACTIVITY DATA

Stability - Stable
Conditions to Avoid - N/A
Incompatibility - Calcium hypochlorite, performic acid, finely divided aluminum, ethylene oxide and bromine pentafluoride.
Hazardous Decomposition or Byproducts - Lead, cadmium and zinc boil off at high temperatures.

SECTION VI - HEALTH HAZARD DATA

Routes of Entry **Inhalation:** Yes **Skin:** No **Ingestion:** Yes

Health Hazards:

Acute - Inhalation of fumes may result metal fume fever, irritation to eyes, mucous membranes and respiratory system, pneumonia, bronchitis, sinusitis, laryngitis, chest pain, conjunctivitis, gingivitis, cardiopulmonary arrest. Skin exposure may result in dermatitis and skin lesions.

Chronic - Chronic bronchitis, chronic atrophic nasopharyngitis, pulmonary fibrosis, silicosis, insomnia, irritability, speech disorders, muscle incoordination, mucosal ulcerations, anemia, metallic taste, nausea, vomiting, weakness, headache, pallor, lead line on gums, chromitosis, anorexia, duodenal ulcer, colitis.

Carcinogenic - NTP: Arsenic, nickel, chromium, cadmium, crystalline silica
IARC: Arsenic, nickel, chromium, lead, cadmium, crystalline silica
OSHA: Arsenic

Signs and Symptoms of Exposure - Nausea, tightness of chest, fever, cough, irritation of eyes, nose, and throat, metallic taste, photophobia, elevated blood lead level.

Medical Conditions Generally Aggravated by Exposure - Respiratory diseases, allergic conditions.

Emergency and First Aid Procedures - Eye or skin contact - flush with water.
Inhalation - remove to fresh air.

SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case of Release or Spill - Dust should be swept up and placed in suitable container. Prevent release to air, sinks, drains, sewers, or water runoff.
Waste Disposal Method - Material is a RCRA hazardous waste. Must be manifested and containerized for shipment to waste treatment or disposal facility.
Precautions to be Taken in Handling and Storing - Wear appropriate personal protective equipment. Use good housekeeping to prevent accumulation.

SECTION VIII – CONTROL MEASURES

Respiratory Protection - Dust/fume respirator
Local Exhaust - May be appropriate. Exhaust should be filtered to prevent release to air.
Protective Gloves - Disposable
Eye Protection - Full protection, goggle-type
Other Protective Clothing or Equipment - Disposable coveralls and rubber boots