



# United States Steel Corporation

## Steelmaking Drop Out Door Dust

### Safety Data Sheet (SDS)

USS IHS Number: 75042

Locations: Fairfield

Original: 12/16/2010

Revision: 09/15/2020

### Section 1 – Identification

**1(a) Product Identifier used on Label:** Steelmaking Drop Out Door Dust

**1(b) Other Means of Identification:** Oxygen Steelmaking Drop Out Door Dust, BOP/Q-BOP Drop Out Door Dust

**1(c) Recommended use of the chemical and restrictions on use:** None

**1(d) Name, Address, and Telephone Number:**

United States Steel Corporation Phone number: (412) 433-6840 (8:00 am to 5:00 pm)  
 600 Grant Street, Room 1662 FAX: (412) 433-5019  
 Pittsburgh, PA 15219-2800

**1(e) Emergency Phone Number:** 1-800-262-8200 (CHEMTREC)

### Section 2 – Hazard(s) Identification

**2(a) Classification of the Chemical:** Steelmaking Drop Out Door Dust is considered a hazardous material according to the criteria specified in REACH [REGULATION (EC) No 1907/2006] and CLP [REGULATION (EC) No 1272/2008] and OSHA 29 CFR 1910.1200 Hazard Communication Standard. The categories of Health Hazards as defined in “GLOBALY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS), Third revised edition ST/SG/AC.10/30/Rev. 3” United Nations, New York and Geneva, 2009 have been evaluated. Refer to Section 3, 8 and 11 for additional information.

**2(b) Signal Word, Hazard Statement(s), Symbols and Precautionary Statement(s):**

Hazard Symbol	Hazard Classification	Signal Word	Hazard Statement(s)
	Single Target Organ Toxicity (STOT) Repeated Exposure - 2	<b>WARNING</b>	May cause damage to lungs through prolonged or repeated exposures. Causes skin irritation. Causes serious eye damage. May cause respiratory irritation.
	Eye Irritation - 1		
	Skin Irritation - 2 STOT Single Exposure - 3		

**Precautionary Statement(s):**

Prevention	Response	Storage/Disposal
Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.	If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor/physician if you feel unwell. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If swallowed: Call a poison center or doctor/physician if you feel unwell. Rinse mouth.	Dispose of contents in accordance with federal, state and local regulations.

**2(c) Hazards not Otherwise Classified:** None Known

**2(d) Unknown Acute Toxicity Statement (Mixture):** None Known

# Steelmaking Drop Out Door Dust

USS IHS No.: 75042

Rev. 12/20

## Section 3 – Composition/Information on Ingredients

### 3(a-c) Chemical Name, Common Name (Synonyms), CAS Number and Other Identifiers, and Concentration:

Chemical Name	CAS Number	EC Number	% weight
Metallic Silicates*	Various	Various	5-65
Iron Oxides	1345-25-1 1309-38-2	215-721-8 215-169-8	15-50
Calcium Carbonate	1317-65-3	207-439-9	0-20
Magnesium Oxide	1309-48-4	215-171-9	2-18
Calcium Oxide	1305-78-8	215-138-9	0-12
Tricalcium Phosphate	7758-87-4	231-840-8	0-5
Calcium Titanate	12049-50-2	234-988-1	0-2

EC- European Community

CAS- Chemical Abstract Service

\* **Steelmaking Drop Out Door Dust** contains a mixture of complex metallic silicates and aluminates, including dicalcium silicate (Ca<sub>2</sub>SiO<sub>4</sub>) 14284-23-2, calcium manganese silicate, and calcium aluminate (CaAl<sub>2</sub>O<sub>7</sub>).

## Section 4 – First-aid Measures

**4(a) Description of Necessary Measures:** Get medical advice/attention if you feel unwell.

- **Inhalation:** If Inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
- **Eye Contact:** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
- **Skin Contact:** Wash with plenty of water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash before reuse.
- **Ingestion:** Get medical advice/attention if you feel unwell.

**4(b) Most Important Symptoms/Effects, Acute and Delayed (Chronic):**

**Acute effects:**

- **Inhalation:** Excessive exposure to high concentrations of dust may cause irritation to the eyes, skin and mucous membranes of the upper respiratory tract.
- **Eye:** Particles of iron or iron compounds may become imbedded in the eye. Excessive exposure to high concentrations of dust may cause irritation to the eyes.
- **Skin:** Skin contact with dusts may cause irritation or sensitization, possibly leading to dermatitis. Skin contact with metallic fumes and dusts may cause physical abrasion.
- **Ingestion:** Ingestion of dust may cause nausea and/or vomiting.

**Chronic Effects:**

Individuals with chronic respiratory disorders (i.e., asthma, chronic bronchitis, emphysema, etc.) may be adversely affected by any fume or airborne particulate matter exposure. Persons with pre-existing skin disorders may be more susceptible to dermatitis.

**4(c) Immediate Medical Attention and Special Treatment:** Treat symptomatically.

## Section 5 – Fire-fighting Measures

**5(a) Suitable (and Unsuitable) Extinguishing Media:** Use extinguishers appropriate for surrounding materials.

**5(b) Specific Hazards Arising from the Chemical:** Incompatibility (materials to avoid) heat, and flames. When burned, toxic smoke and vapor may be emitted including, oxides of carbon, metal oxides and other toxic vapors.

**5(c) Special Protective Equipment and Precautions for Fire-fighters:** Self-contained NIOSH approved respiratory protection and full protective clothing should be worn when fumes and/or smoke from fire are present. Heat and flames cause emittance of acrid smoke and fumes. Do not release runoff from fire control methods to sewers or waterways. Firefighters should wear full face-piece self-contained breathing apparatus and chemical protective clothing with thermal protection. Direct water stream will scatter and spread flames and, therefore, should not be used.

## Section 6 - Accidental Release Measures

**6(a) Personal Precautions, Protective Equipment and Emergency Procedures:** For spills involving finely divided particles, clean-up personnel should be protected against contact with eyes and skin. If material is in a dry state, avoid inhalation of dust. Personnel should be protected against contact with eyes and skin. Fine, dry material should be removed by vacuuming or wet sweeping methods to prevent spreading of dust. Avoid using compressed air. Do not release into sewers or waterways. Collect material in appropriate, labeled containers for recovery or disposal in accordance with federal, state, and local regulations.

**6(b) Methods and Materials for Containment and Clean Up:** Collect material in appropriate, labeled containers for recovery or disposal in accordance with federal, state, and local regulations. Follow applicable OSHA regulations (29 CFR 1910.120) and all other pertinent state and federal requirements.

# Steelmaking Drop Out Door Dust

USS IHS No.: 75042

Rev. 12/20

## Section 7 - Handling and Storage

**7(a) Precautions for Safe Handling:** Wash thoroughly after handling. Do not breathe dusts or fume. Wear protective gloves / eye protection / face protection. Wash thoroughly after handling. Wash with plenty of water. Take off contaminated clothing and wash before reuse. Use only outdoors or in a well-ventilated area. Emergency safety showers and eye wash stations should be present.

**7(b) Conditions for Safe Storage, including any Incompatibilities:** Whenever feasible, store locked up.

## Section 8 - Exposure Controls / Personal Protection

**8(a) Occupational Exposure Limits (OELs):** The following exposure limits are offered as reference, for an experience industrial hygienist to review.

Ingredients	OSHA PEL <sup>1</sup>	ACGIH TLV <sup>2</sup>	NIOSH REL <sup>3</sup>	IDLH <sup>4</sup>
Metallic silicates*	NE	NE	NE	NE
Iron Oxides	10 mg/m <sup>3</sup> (iron oxide fume)	5.0 mg/m <sup>3</sup> (iron oxide, respirable fraction <sup>5</sup> )	5.0 mg/m <sup>3</sup> (iron oxide dust and fume)	2,500 mg/m <sup>3</sup> (as Fe)
Calcium Carbonate	NE	NE	NE	NE
Magnesium Oxide	15 mg/m <sup>3</sup> (as magnesium oxide fume, total particulate)	10 mg/m <sup>3</sup> (as magnesium oxide, inhalable fraction <sup>6</sup> )	NE	750 mg/m <sup>3</sup> (as magnesium oxide fume)
Calcium Oxide	5.0 mg/m <sup>3</sup> (as calcium oxide)	2.0 mg/m <sup>3</sup> (as calcium oxide) 5.0 mg/m <sup>3</sup> (as calcium hydroxide)	2.0 mg/m <sup>3</sup> (as calcium oxide) 5.0 mg/m <sup>3</sup> (as calcium hydroxide) 10 mg/m <sup>3</sup> (as calcium silicate, total dust) 5.0 mg/m <sup>3</sup> (as calcium hydroxide, respirable fraction)	25 mg/m <sup>3</sup> (as calcium oxide)
Tricalcium Phosphate	NE	NE	NE	NE
Calcium Titanate	NE	NE	NE	NE

NE - None Established

\*Varying metallic silicates may be present in varying forms.

- OSHA PELs (Permissible Exposure Limits) are 8-hour TWA (time-weighted average) concentrations unless otherwise noted. A ("C") designation denotes a ceiling limit, which should not be exceeded during any part of the working exposure unless otherwise noted. A Short Term Exposure Limit (STEL) is defined as a 15-minute exposure, which should not be exceeded at any time during a workday. An Action level (AL) is used by OSHA and NIOSH to express a health or physical hazard. They indicate the level of a harmful or toxic substance/activity, which requires medical surveillance, increased industrial hygiene monitoring, or biological monitoring. Action Levels are generally set at one half of the PEL but the actual level may vary from standard to standard. The intent is to identify a level at which the vast majority of randomly sampled exposures will be below the PEL.
- Threshold Limit Values (TLV) established by the American Conference of Governmental Industrial Hygienists (ACGIH) are 8-hour TWA concentrations unless otherwise noted. ACGIH TLVs are for guideline purposes only and as such are not legal, regulatory limits for compliance purposes. DSEN – May cause dermal sensitization. This notation is used to indicate the potential for dermal sensitization resulting from the interaction of an absorbed agent and ultraviolet light (i.e. photosensitization). RSEN – May cause respiratory sensitization.
- The National Institute for Occupational Safety and Health Recommended Exposure Limits (NIOSH-REL)- Compendium of Policy and Statements. NIOSH, Cincinnati, OH (1992). NIOSH is the federal agency designated to conduct research relative to occupational safety and health. As is the case with ACGIH TLVs, NIOSH RELs are for guideline purposes only and as such are not legal, regulatory limits for compliance purposes.
- The "immediately dangerous to life or health air concentration values (IDLHs)" are used by NIOSH as part of the respirator selection criteria and were first developed in the mid-1970's by NIOSH. The Documentation for Immediately Dangerous to Life or Health Concentrations (IDLHs) is a compilation of the rationale and sources of information used by NIOSH during the original determination of 387 IDLHs and their subsequent review and revision in 1994. Ca is designated as carcinogen.
- Respirable fraction. The concentration of respirable dust for the application of this limit is to be determined from the fraction passing a size-selector with the characteristics defined in ACGIH 2020 TLVs<sup>®</sup> and BEIs<sup>®</sup> Appendix D, paragraph C.
- Inhalable fraction. The concentration of inhalable particulate for the application of this TLV is to be determined from the fraction passing a size-selector with the characteristics defined in the ACGIH 2020 TLVs<sup>®</sup> and BEIs<sup>®</sup> (Biological Exposure Indices) Appendix D, paragraph A.

**8(b) Appropriate Engineering Controls:** Local exhaust ventilation should be used to control the emission of air contaminants. General dilution ventilation may assist with the reduction of air contaminant concentrations. Emergency eye wash stations and deluge safety showers should be available in the work area.

**8(c) Individual Protection Measures:**

- Respiratory Protection:** Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, use only a NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. Concentration in air of the various contaminants determines the extent of respiratory protection needed. Half-face, negative-pressure, air-purifying respirator equipped with P100 filter is acceptable for concentrations up to 10 times the exposure limit. Full-face, negative-pressure, air-purifying respirator equipped with P100 filter is acceptable for concentrations up to 50 times the exposure limit. Protection by air-purifying respirator equipped with P100 filter is acceptable for concentrations up to 50 times the exposure limit. Protection by air-purifying negative-pressure and powered air respirators is limited. Use a positive-pressure demand, full-face, supplied air respirator or self-contained breathing apparatus (SCBA) for concentrations above 50 times the exposure limit. If exposure is above the IDLH (immediately dangerous to life or health) for any of the constituents, or there is a possibility of an uncontrolled release or exposure levels are unknown, then use a positive-demand, full-face, supplied air respirator with escape bottle or SCBA.

**Warning!** Air-purifying respirators both negative-pressure and powered-air do not protect workers in oxygen-deficient atmospheres.

- Eyes:** Wear eye protection/face protection. For molten iron or the generation of airborne particulates, use safety glasses to prevent eye contact as required. A face shield should be used when appropriate to prevent contact with splashed materials.

# Steelmaking Drop Out Door Dust

USS IHS No.: 75042

Rev. 12/20

## Section 8 - Exposure Controls / Personal Protection (continued)

**8(c) Individual Protection Measures (continued):**

- **Skin:** Wear protective gloves. For molten iron or the generation of airborne particulates, use protective clothing to prevent skin contact. Take off contaminated clothing and wash before reuse.
- **Other protective equipment:** An eyewash fountain and deluge shower should be readily available in the work area.

## Section 9 - Physical and Chemical Properties





<p><b>9(a) Appearance (physical state, color, etc.):</b> White/dark gray powder/larger slag pieces</p> <p><b>9(b) Odor:</b> NA</p> <p><b>9(c) Odor Threshold:</b> NA</p> <p><b>9(d) pH:</b> NA</p> <p><b>9(e) Melting Point/Freezing Point:</b> ND</p> <p><b>9(f) Initial Boiling Point and Boiling Range:</b> NA</p> <p><b>9(g) Flash Point:</b> NA</p> <p><b>9(h) Evaporation Rate:</b> NA</p> <p><b>9(i) Flammability (solid, gas):</b> Not flammable</p> <p>NA - Not Applicable ND - Not Determined for product as a whole</p>	<p><b>9(j) Upper/Lower Flammability or Explosive Limits:</b> NA</p> <p><b>9(k) Vapor Pressure:</b> NA</p> <p><b>9(l) Vapor Density (Air = 1):</b> NA</p> <p><b>9(m) Relative Density:</b> 2.75 SG</p> <p><b>9(n) Solubility(ies):</b> 2.4%</p> <p><b>9(o) Partition Coefficient n-octanol/water:</b> NA</p> <p><b>9(p) Auto-ignition Temperature:</b> ND</p> <p><b>9(q) Decomposition Temperature:</b> ND</p> <p><b>9(r) Viscosity:</b> ND</p>
--	--

## Section 10 - Stability and Reactivity

- 10(a) Reactivity:** Not Determined (ND)
- 10(b) Chemical Stability:** **Steelmaking Drop Out Door Dust** is stable under normal storage and handling conditions.
- 10(c) Possibility of Hazardous Reaction:** None Known
- 10(d) Conditions to Avoid:** Calcium oxide will react with water to form calcium hydroxide.
- 10(e) Incompatible Materials:** Iron oxide dusts in contact with calcium hypochlorite evolve oxygen and may cause an explosion.
- 10(f) Hazardous Decomposition Products:** Oxides of carbon, metal oxides and toxic vapors may be released at elevated temperatures.

## Section 11 - Toxicological Information

**11(a-e) Information on Toxicological Effects:** The following toxicity data has been determined for **Steelmaking Drop Out Door Dust** by using the information available for its components applied to the guidance on the preparation of an SDS under the GHS requirements of OSHA and the EU CPL:

Hazard Classification	Hazard Category		Hazard Symbols	Signal Word	Hazard Statement
	EU	OSHA			
<b>Skin Irritation</b> (covers Categories 1A, 1B, 1C, and 2)	2	2 <sup>b</sup>		<b>Warning</b>	Causes skin irritation.
<b>Eye Damage/Irritation</b> (covers Categories 1, 2A and 2B)	1	1 <sup>c</sup>		<b>Danger</b>	Causes serious eye damage.
<b>Specific Target Organ Toxicity (STOT) Following Single Exposure</b> (covers Categories 1-3)	3	3 <sup>i</sup>		<b>Warning</b>	May cause respiratory irritation.
<b>STOT Following Repeated Exposure</b> (covers Categories 1 and 2)	2	2 <sup>j</sup>		<b>Warning</b>	May cause damage to lungs through prolonged or repeated exposures.

\* NR Not Rated - Available data does not meet criteria for classification.

The Toxicological data listed below are presented regardless to classification criteria. Individual hazard classification categories where the toxicological information has met or exceeded a classification criteria threshold are listed above.

- a. No LC<sub>50</sub> or LD<sub>50</sub> has been established for **Steelmaking Drop Out Door Dust**. The following data has been determined for the components:
- **Iron Oxide:** LD<sub>50</sub>= >10,000 mg/kg (Oral/ Rat)
- b. No Skin (Dermal) Irritation data available for **Steelmaking Drop Out Door Dust** as a mixture. The following Skin (Dermal) Irritation data has been determined for the components:
- **Calcium Magnesium Silicate:** Causes mild skin irritation.
  - **Calcium Aluminate:** Causes severe skin burns.
  - **Iron Oxide:** Moderately irritating.
  - **Magnesium Dioxide:** Severe skin irritant in human (HSDB).

# Steelmaking Drop Out Door Dust

USS IHS No.: 75042

Rev. 12/20

## Section 11 - Toxicological Information (continued)

### 11(a-e) Information on Toxicological Effects (continued):

- c. No Eye Irritation data available for **Steelmaking Drop Out Door Dust** as a mixture. The following Eye Irritation information was found for the components:
- **Calcium Magnesium Silicate:** Causes mild eye irritation.
  - **Calcium Aluminate:** Causes serious eye burns.
  - **Iron Oxide:** Severely irritating; may cause burns. Human Corrosive (IUCLID).
  - **Calcium Oxide:** Rabbit Irritating (REACH).
  - **Magnesium dioxide:** Severe eye irritant in human (HSDB).
- d. No Skin (Dermal)/Respiratory Sensitization data available for **Steelmaking Drop Out Door Dust** as a mixture or its individual components.
- e. No Aspiration Hazard data available for **Steelmaking Drop Out Door Dust** as a mixture or its individual components.
- f. No Germ Cell Mutagenicity data available for **Steelmaking Drop Out Door Dust** as a mixture. The following Germ Cell Mutagenicity information was found for the components:
- **Iron Oxide:** Both positive and negative data.
- g. Carcinogenicity: IARC, NTP, and OSHA do not list **Steelmaking Drop Out Door Dust** as carcinogens. The following Carcinogenicity information was found for the components:
- **Iron Oxide (Fe<sub>2</sub>O<sub>3</sub>):** IARC-3, unclassifiable as to carcinogenicity in humans; ACGIH TLV-A4, not classifiable as a human carcinogen
  - **Magnesium (oxide):** ACGIH TLV-A4, not classifiable as a human carcinogen
- h. No Toxic Reproduction data available for **Steelmaking Drop Out Door Dust** as a mixture or its individual components.
- i. No Specific Target Organ Toxicity (STOT) following a Single Exposure data available for **Steelmaking Drop Out Door Dust** as a mixture. The following STOT following a Single Exposure data was found for the components:
- **Iron Oxide:** May cause lung irritation.
  - **Calcium Oxide:** Can cause respiratory tract irritation, skin and eye irritation.
- j. No Specific Target Organ Toxicity (STOT) following Repeated Exposure data was available for **Steelmaking Drop Out Door Dust** as a whole. The following STOT following Repeated Exposure data was found for the components:
- **Iron Oxide:** Some pulmonary and lung effects reported.

The above toxicity information was determined from available scientific sources to illustrate the prevailing posture of the scientific community. The scientific resources includes: The American Conference of Governmental Industrial Hygienist (ACGIH) Documentation of the Threshold Limit Values (TLVs) and Biological Exposure indices (BEIs) with Other Worldwide Occupational Exposure Values 2020, The International Agency for Research on Cancer (IARC), The National Toxicology Program (NTP) updated documentation, the World Health Organization (WHO) and other available resources, the International Uniform Chemical Information Database (IUCLID), European Union Risk Assessment Report (EU-RAR), Concise International Chemical Assessment Documents (CICAD), European Union Scientific Committee for Occupational Exposure Limits (EU-SCOEL), Agency for Toxic Substances and Disease Registry (ATSDR), Hazardous Substance Data Bank (HSDB), and International Programme on Chemical Safety (IPCS).

The following health hazard information is provided regardless to classification criteria and is based on the individual component(s):

### Acute Effects by Component:

- **METALLIC SILICATES:** Calcium silicate may be harmful if swallowed. Calcium Magnesium Silicate may cause mild skin, eye and respiratory irritation. Calcium Aluminate is severely irritating or corrosive to the eyes and skin.
- **IRON OXIDE:** Contact with iron oxide has been reported to cause skin irritation and serious eye damage.
- **CALCIUM CARBONATE:** Not Reported/ Not Classified
- **MAGNESIUM OXIDE:** Not Reported/ Not Classified
- **CALCIUM OXIDE:** Calcium oxide is an eye and skin irritant.
- **TRICALCIUM PHOSPHATE:** Not Reported/ Not Classified
- **CALCIUM TITANATE:** Not Reported/ Not Classified

### Delayed (chronic) Effects by Component:

- **METALLIC SILICATES:** Calcium Aluminate may irritate the upper respiratory system. Calcium Silicate exposure to wollastonite miners suggests that occupational exposure can cause impaired respiratory function and pneumoconiosis.
- **IRON OXIDES:** Chronic inhalation of excessive concentrations of iron oxide fumes or dusts may result in the development of a benign pneumoconiosis, called siderosis, which is observable as an X-ray change. No physical impairment of lung function has been associated with siderosis. Inhalation of excessive concentrations of ferric oxide may enhance the risk of lung cancer development in workers exposed to pulmonary carcinogens.
- **CALCIUM CARBONATE:** May produce alkalosis and hypercalcemia.
- **MAGNESIUM OXIDE:** Irritation of eyes, nose, and throat. Symptoms may include dryness of nose and mouth, cough, feeling of weakness, tightness of chest, muscular pain, chills, fever, headache, nausea, and vomiting.
- **CALCIUM OXIDE:** Depending on the concentration and duration of exposure, repeated or prolonged inhalation may cause inflammation of the respiratory passages, ulcers of the mucous membranes, and possible perforation of the nasal septum. Repeated or prolonged skin contact may cause dermatitis.
- **TRICALCIUM PHOSPHATE:** Not Reported/ Not Classified
- **CALCIUM TITANATE:** Not Reported/Not Classified

## Steelmaking Drop Out Door Dust

USS IHS No.: 75042

Rev. 12/20

### Section 12 - Ecological Information

**12(a) Ecotoxicity (aquatic & terrestrial):** No data available for the product, **Steelmaking Drop Out Door Dust** as a whole. However, individual components of the product have been found to be toxic to the environment. Dusts may migrate into soil and groundwater and be ingested by wildlife as follows:

- **Iron Oxide:** LC<sub>50</sub>: >1000 mg/L; Fish
- **Calcium Oxide:** LC<sub>50</sub>: 159 mg/L; invertebrates

**12(b) Persistence & Degradability:** No Data Available

**12(c) Bioaccumulative Potential:** No Data Available

**12(d) Mobility (in soil):** No Data Available

**12(e) Other Adverse Effects:** None Known

**Additional Information:**

**Hazard Category:** No Category

**Signal Word:** No Signal Word

**Hazard Symbol:** No Hazard Symbol

**Hazard Statement:** No Hazard Statement

### Section 13 - Disposal Considerations

**Disposal:** Dispose of contents/container in accordance with local/regional/international regulations.

**Container Cleaning and Disposal:** Follow applicable federal, state and local regulations. Observe safe handling precautions. European Waste Catalogue 10-02-99 (wastes not otherwise specified or 12-01-99 (wastes not otherwise specified).

**Please note this information is for Steelmaking Drop Out Door Dust in its original form. Any alterations can void this information.**

### Section 14 - Transport Information

**14 (a-g) Transportation Information:**

**US Department of Transportation (DOT)** under 49 CFR 172.101 does not regulate **Steelmaking Drop Out Door Dust** as a hazardous material. All federal, state, and local laws and regulations that apply to the transport of this type of material must be adhered to.

<p><b>Shipping Name:</b> Steelmaking Drop Out Door Dust</p> <p><b>Shipping Symbols:</b> NA</p> <p><b>Hazard Class:</b> NA</p> <p><b>UN No.:</b> NA</p> <p><b>Packing Group:</b> NA</p> <p><b>DOT/IMO Label:</b> NA</p> <p><b>Special Provisions (172.102):</b> NA</p>	<p><b>Packaging Authorizations</b></p> <p>a) <b>Exceptions:</b> NA</p> <p>b) <b>Non-bulk:</b> NA</p> <p>c) <b>Bulk:</b> NA</p>	<p><b>Quantity Limitations</b></p> <p>a) <b>Passenger Aircraft or Rail:</b> NA</p> <p>b) <b>Cargo Aircraft Only:</b> NA</p> <p><b>Vessel Stowage Location:</b> NA</p> <p><b>DOT reportable quantities:</b> NA</p>
---	--	---

**International Maritime Dangerous Goods (IMDG) and the Regulations Concerning the International Carriage of Dangerous Goods by Rail (RID)** classification, packaging and shipping requirements follow the US DOT Hazardous Materials Regulation.

**Regulations Concerning the International Carriage of Dangerous Goods by Road (ADR)** does not regulate **Steelmaking Drop Out Door Dust** as a hazardous material.

<p><b>Shipping Name:</b> Steelmaking Drop Out Door Dust</p> <p><b>Classification Code:</b> NA</p> <p><b>UN No.:</b> NA</p> <p><b>Packing Group:</b> NA</p> <p><b>ADR Label:</b> NA</p> <p><b>Special Provisions:</b> NA</p> <p><b>Limited Quantities:</b> NA</p>	<p><b>Packaging</b></p> <p>a) <b>Packing Instructions:</b> NA</p> <p>b) <b>Special Packing Provisions:</b> NA</p> <p>c) <b>Mixed Packing Provisions:</b> NA</p>	<p><b>Portable Tanks &amp; Bulk Containers</b></p> <p>a) <b>Instructions:</b> NA</p> <p>b) <b>Special Provisions:</b> NA</p>
--	---	--

**International Air Transport Association (IATA)** does not regulate **Steelmaking Drop Out Door Dust** as a hazardous material.

<p><b>Shipping Name:</b> Steelmaking Drop Out Door Dust</p> <p><b>Class/Division:</b> NA</p> <p><b>Hazard Label (s):</b> NA</p> <p><b>UN No.:</b> NA</p> <p><b>Packing Group:</b> NA</p> <p><b>Excepted Quantities (EQ):</b> NA</p>	<b>Passenger &amp; Cargo Aircraft</b>		<p><b>Cargo Aircraft Only</b></p> <p><b>Pkg Inst:</b> NA</p> <p><b>Max Net Qty/Pkg:</b> NA</p>	<p><b>Special Provisions:</b> NA</p> <p><b>ERG Code:</b> NA</p>
	<b>Limited Quantity (EQ)</b>			
	<b>Pkg Inst:</b> NA	<b>Pkg Inst:</b> NA		
	<b>Max Net Qty/Pkg:</b> NA	<b>Max Net Qty/Pkg:</b> NA		

Pkg Inst – Packing Instructions

Max Net Qty/Pkg – Maximum Net Quantity per Package

ERG – Emergency Response Drill Code

**Steelmaking Drop Out Door Dust** does not have a **Transport Dangerous Goods (TDG)** classification.

# Steelmaking Drop Out Door Dust

USS IHS No.: 75042

Rev. 12/20

## Section 15 - Regulatory Information

**Regulatory Information:** The following listing of regulations relating to a U. S. Steel product may not be complete and should not be solely relied upon for all regulatory compliance responsibilities. This product and/or its constituents are subject to the following regulations:

**SARA Potential Hazard Categories:** Immediate Acute Health Hazard, Delayed Chronic Health Hazard

**Section 313 Supplier Notification:** The product, **Steelmaking Drop Out Door Dust** contains the following toxic chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372:

CAS #	Chemical Name	Percent by Weight
Not Applicable	Calcium Manganese Silicate (Mn Compounds)	0 - 13

**State Regulations:** The product, **Steelmaking Drop Out Door Dust** as a whole is not listed in any state regulations. However, individual components of the product are listed in various state regulations:

California Prop. 65: The product, **Steelmaking Drop Out Door Dust** does not contain chemicals which is known to the State of California to cause cancer or reproductive toxicity. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**Other Regulations:**

**WHMIS Classification (Canadian):** The product, **Steelmaking Drop Out Door Dust** is not listed as a whole. However individual components are listed.

Ingredients	WHMIS Classification
Calcium Oxide	Skin corrosion/irritation - Category 1; Serious eye damage/eye irritation - Category 1; Health hazards not otherwise classified (corrosion) - Category 1

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

## Section 16 - Other Information

**Prepared By:** United States Steel Corporation

**Revision History:**

12/31/2020 – Update to sections 2, 8, 11, 15  
07/01/2017 – Update WHMIS 2015

**Expiration Date:** 12/31/2023

08/21/2014 - Update to OSHA HAZ COM 2012  
05/10/2011 – Original

**Additional Information:**

**Hazardous Material Identification System (HMIS) Classification**

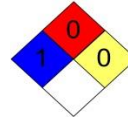
Health Hazard	1
Fire Hazard	0
Physical Hazard	0

HEALTH= 1, \* Denotes possible chronic hazard if airborne dusts or fumes are generated  
Irritation or minor reversible injury possible.

FIRE= 0, Materials that will not burn.

PHYSICAL HAZARDS = 0, Materials that are normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosives.

**National Fire Protection Association (NFPA)**



HEALTH = 1, Exposure could cause irritation but only minor residual injury even if no treatment is given.

FIRE = 0, Materials that will not burn.

INSTABILITY = 0, Normally stable, even under fire exposure conditions, and are not reactive with water.

**ABBREVIATIONS/ACRONYMS:**

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>BEIs</b>	Biological Exposure Indices
<b>CAS</b>	Chemical Abstracts Service
<b>CERCLA</b>	Comprehensive Environmental Response, Compensation, and Liability Act
<b>CFR</b>	Code of Federal Regulations
<b>CNS</b>	Central Nervous System
<b>GI, GIT</b>	Gastro-Intestinal, Gastro-Intestinal Tract
<b>HMIS</b>	Hazardous Materials Identification System
<b>IARC</b>	International Agency for Research on Cancer
<b>LC50</b>	Median Lethal Concentration
<b>LD50</b>	Median Lethal Dose
<b>LD<sub>Lo</sub></b>	Lowest Dose to have killed animals or humans
<b>LEL</b>	Lower Explosive Limit
<b>µg/m<sup>3</sup></b>	microgram per cubic meter of air
<b>mg/m<sup>3</sup></b>	milligram per cubic meter of air
<b>mppcf</b>	million particles per cubic foot
<b>SDS</b>	Safety Data Sheet
<b>MSHA</b>	Mine Safety and Health Administration
<b>NFPA</b>	National Fire Protection Association

<b>NIF</b>	No Information Found
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>NTP</b>	National Toxicology Program
<b>ORC</b>	Organization Resources Counselors
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>PNOR</b>	Particulate Not Otherwise Regulated
<b>PNOC</b>	Particulate Not Otherwise Classified
<b>PPE</b>	Personal Protective Equipment
<b>ppm</b>	parts per million
<b>RCRA</b>	Resource Conservation and Recovery Act
<b>RTECS</b>	Registry of Toxic Effects of Chemical Substances
<b>SARA</b>	Superfund Amendment and Reauthorization Act
<b>SCBA</b>	Self-contained Breathing Apparatus
<b>STEL</b>	Short-term Exposure Limit
<b>TLV</b>	Threshold Limit Value
<b>TWA</b>	Time-weighted Average
<b>UEL</b>	Upper Explosive Limit

**Disclaimer:** This information is taken from sources or based upon data believed to be reliable. However, United States Steel Corporation makes no warranty as to the absolute correctness or sufficiency of any of the foregoing or that additional or other measures may not be required under particular conditions.