

United States Steel Corporation

Coke (Various Sizes)

Safety Data Sheet (SDS)

USS IHS Number: 18

Locations: Mon Valley, Gary, Granite City, Hamilton, and Lake Erie

Original: 12/16/2010 Revision: 10/20/2020

Section 1 - Identification

1(a) Product Identifier used on Label: Coke (Various Sizes)

1(b) Other Means of Identification: Blast Furnace Coke, Furnace Coke, Metallurgical Coke

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: Coke 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 "GLOBALLY 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)
	Carcinogenicity - 1A Single Target Organ Toxicity (STOT) Single Exposure - 2 STOT Repeated Exposure - 1	WARNING	May cause cancer. Causes mechanical irritation to skin and lung irritation. Causes damage to lungs through prolonged or repeated exposure. If small particles are generated during further processing, handling or by other
NA	Combustible Dust		means, may form combustible dust concentrations in air.

Precautionary Statement(s):

Prevention	Response	Storage/Disposal
Do not breathe dusts.		
Wear protective gloves / protective clothing / eye protection / face protection.		Store locked up.
Wash thoroughly after handling. Obtain special instructions before use.	If exposed, concerned or feel unwell: Get medical advice/attention, call a poison center or doctor/physician.	Dispose of contents in accordance with federal,
Do not handle until all safety precautions have been read and understood.		state and local regulations.
Do not eat, drink or smoke when using this product.		

2(c) Hazards not Otherwise Classified: None Known

2(d) Unknown Acute Toxicity Statement (Mixture): 6-9%

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						
Coke	65996-77-2	266-010-4	100%			
The following components comprise this coke product and were used for hazard determination:						
Carbon	7440-44-0	231-153-3	85-93			

Section 3 – Composition/Information on Ingredients (continued)

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

Chemical Name	CAS Number	EC Number	% weight	
Metallic Silicates and Aluminosilicates*	Various	Various	6-9	
Crystalline Silica (as Quartz)	14808-60-7	238-878-4	0-2.5	
Iron Sulfide	1309-36-0	215-167-7	1-2	

EC- European Community

CAS- Chemical Abstract Service

* Some of the silica present in Coke occurs in the form of complex metallic silicates and aluminosilicates.

Section 4 – First-aid Measures

- **4(a) Description of Necessary Measures:** If exposed, concerned or feel unwell: Get medical advice/attention, call a poison center or doctor/physician.
 - Inhalation: If exposed, concerned or feel unwell: Get medical advice/attention, call a poison center or doctor/physician.
 - Eye Contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - Skin Contact: If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 - Ingestion: If swallowed: Rinse mouth.
- 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: Excessive exposure to high concentrations of dust may cause irritation to the eyes.
- Skin: Skin contact with dusts may cause irritation or dermatitis.
- 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 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:** Steam, water fog, CO₂, foam, dry chemicals or sand. Small fires Foam, CO₂, Dry Chemical, Water Spray. Large Fires Water Spray, fog or foam.
- **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. If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.
- **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 into 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.
- **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.

Section 7 - Handling and Storage

- **7(a) Precautions for Safe Handling:** Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Do not breathe dusts. Wear protective gloves / protective clothing / eye protection / face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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 ¹	ACGIH TLV ²	NIOSH REL 3	IDLH ⁴
Carbon	NE ⁵	NE ⁶	NE	NE
Metallic Silicates	NE ⁵	NE ⁶	NE	NE
Crystalline Silica (as Quartz)	0.05 mg/m ³ "AL" 0.025 mg/m ³	0.025 mg/m³ (as respirable fraction³)	0.05 mg/m³ (as respirable dust), Ca	50 mg/m³ (as quartz, Tripoli) 25 mg/m³ (as cristobalite, tridymite), Ca
Iron Sulfide	NE ⁵	NE ⁶	NE	NE

NE - None Established

- 1. 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.
- 2. 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.
- 3. 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.
- 4. 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.
- 5. PNOR (Particulates Not Otherwise Regulated). All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by a limit which is the same as the inert or nuisance dust limit of 15 mg/m³ for total dust and 5.0 mg/m³ for the respirable fraction.
- 6. PNOS (Particulates Not Otherwise Specified). Particulates identified under the PNOS heading are "nuisance dusts" containing no asbestos or crystalline silica.
- 7. 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 ® and BEIs ® Appendix D, paragraph C.

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 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. A face shield should be used when appropriate to prevent contact with splashed materials. Chemical goggles, face shields or glasses should be worn to prevent eye contact. Contact lenses should not be worn where industrial exposure to this material is likely.
- Skin: Persons handling this product should wear appropriate clothing to prevent skin contact. Wear protective gloves.
- Other protective equipment: An eyewash fountain and deluge shower should be readily available in the work area.

Section 9 - Physical and Chemical Properties

9(a) Appearance (physical state, color, etc.): Cellular, carbonaceous, black cinder-like material, porous consistency, resulting from the high temperature (>700°C) destructive distillation of coal

9(b) Odor: NA

9(c) Odor Threshold: NA

9(d) pH: NA

9(e) Melting Point/Freezing Point: NA

9(f) Initial Boiling Point and Boiling Range: NA

9(g) Flash Point: NA

9(j) Upper/Lower Flammability or Explosive Limits: NA

9(k) Vapor Pressure: NA

9(1) Vapor Density (Air = 1): NA

9(m) Relative Density: NA 9(n) Solubility(ies): ND

9(o) Partition Coefficient n-octanol/water: NA

9(p) Auto-ignition Temperature: ND

Section 9 - Physical and Chemical Properties (continued)

9(h) Evaporation Rate: NA 9(q) Decomposition Temperature: ND

9(i) Flammability (solid, gas): Not flammable 9(r) Viscosity: ND

NA - Not Applicable

 \boldsymbol{ND} - Not Determined for product as a whole

Section 10 - Stability and Reactivity

10(a) Reactivity: Not Determined (ND)

10(b) Chemical Stability: Coke is stable under normal storage and handling conditions.

10(c) Possibility of Hazardous Reaction: None Known

10(d) Conditions to Avoid: Storage with incompatible materials. Flames and ignition sources where dust can accumulate.

10(e) Incompatible Materials: Strong acids and bases.

10(f) Hazardous Decomposition Products: Oxides of carbon, sulfur, metal oxides, hydrogen sulfide and other toxic vapors may be releases at elevated temperatures.

Section 11 - Toxicological Information

11(a-e) Information on Toxicological Effects: The following toxicity data has been determined for Coke 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		Signal	Hazard Statement	
mazaru Ciassification	EU	OSHA	Symbols	Word	Hazaru Statement	
Germ Cell Mutagenicity (covers Categories 1A, 1B and 2)	2	NR *	NA	NA	NA	
Carcinogenicity (covers Categories 1A, 1B and 2)	NR	1A ^g		Danger	May cause cancer.	
Specific Target Organ Toxicity (STOT) Following Single Exposure (covers Categories 1-3)	2	2 ⁱ		Warning	Causes mechanical irritation to skin and lung irritation.	
STOT Following Repeated Exposure (covers Categories 1 and 2)	1	1 ^j		Danger	Causes damage to lungs through prolonged or repeated exposure.	

^{*} 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_{50} or LD_{50} has been established for **Coke**. The following data has been determined for the components:
 - Carbon: LD₅₀= >10,000 mg/kg (Oral/ Rat)

- Silica: Rat LD₅₀ = 500 mg/kg (Oral/ Rat)
- b. No Skin (Dermal) Irritation data available for **Coke** as a mixture. The following Skin (Dermal) Irritation data has been determined for the components:
 - Iron Sulfide: Causes skin irritation
- c. No Eye Irritation data available for Coke as a mixture. The following Eye Irritation information was found for the components:
 - Silicon Dioxide: Crystalline silica may cause abrasion of the cornea
 - Iron Sulfide: Causes serious eye irritation
- d. No Skin (Dermal)/Respiratory Sensitization data available for Coke as a mixture or its individual components.
- e. No Aspiration Hazard data available for Coke as a mixture or its individual components.
- f. No Germ Cell Mutagenicity data available for Coke as a mixture or its individual components.
- g. Carcinogenicity: IARC, NTP, and OSHA do not list **Coke** as carcinogens. The following Carcinogenicity information was found for the components:
 - Silica, crystalline (as quartz): IARC-1 (silica, crystalline), carcinogen to humans; ACGIH TLV-A2 (silica, crystalline), suspected human carcinogen; NTP-K, known to be a carcinogen; NIOSH-Ca, potential occupational carcinogen; OSHA-Ca, carcinogen.
- h. No Toxic Reproduction data available for Coke as a mixture or its individual components.
- i. No Specific Target Organ Toxicity (STOT) following a Single Exposure data available for **Coke** as a mixture. The following STOT following a Single Exposure data was found for the components:
 - Silicon Dioxide: Single exposure to very high airborne levels may cause lung irritation in exposed humans.
- j. No Specific Target Organ Toxicity (STOT) following Repeated Exposure data was available for **Coke** as a whole. The following STOT following Repeated Exposure data was found for the components:
 - Silicon Dioxide: Repeated exposure to crystalline silica causes silicosis and kidney damage as well as increased incidence of autoimmune disorders in humans.

Section 11 - Toxicological Information (continued)

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

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:

- CARBON: Not Reported/ Not Classified
- METALLIC SILICATES: Magnesium Silicate may irritate the eyes. Potassium Silicate may be harmful if swallowed or contacts skin. Calcium silicate may be harmful if swallowed.
- CRYSTALINE SILICA (Silicon Dioxide): Causes irritation and inflammation of the respiratory tract. May cause abrasion of the cornea. Inhalation may cause cough. A single exposure to very high airborne levels may cause lung irritation in exposed humans.
- **IRON SULFIDE:** Causes skin, eye and mucus membrane irritation.

Delayed (chronic) Effects by Component:

- CARBON: Chronic inhalation may lead to decreased pulmonary function.
- METALLIC SILICATES: Magnesium and Potassium Silicates are suspected of causing cancer by inhalation. Lifetime inhalation exposure of rats and mice to atmospheres of magnesium silicate resulted in interstitial fibrosis of the lung and reduced pulmonary function in rats at =,> 6 mg/m³. Calcium Silicate exposure to wollastonite miners suggests that occupational exposure can cause impaired respiratory function and pneumoconiosis.
- CRYSTALINE SILICA (Crystalline Quartz): Inhalation of quartz is classified by IARC as a probable human carcinogen. Chronic exposure can cause silicosis, a form of lung scarring that can cause shortness of breath, reduced lung function, and in severe cases, death. Repeated exposure may cause kidney damage as well as increased incidence of autoimmune disorder.
- IRON SULFIDE: Chronic inhalation of excessive concentrations of iron compounds may result in pulmonary fibrosis. Sulfide compounds may irritate the skin, eyes, lungs and gastrointestinal tract. May cause damage to the lung from prolonged or repeated exposure. Hydrogen sulfide, if generated is toxic.

Section 12 - Ecological Information

12(a) Ecotoxicity (aquatic & terrestrial): No data available for the product, Coke as a whole.

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: Not Reported Signal Word: No Signal Word

Hazard Symbol: No Symbol **Hazard Statement:** No 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 16-03-06 (organic wastes other than those specified).

Please note this information is for Coke 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 **Coke** 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.

Shipping Name: NOT DOT Regulated	Packaging Authorizations	Quantity Limitations			
Shipping Symbols: NA	a) Exceptions: NA	a) Passenger Aircraft or Rail: NA			
Hazard Class: NA	b) Non-bulk: NA	b) Cargo Aircraft Only: NA			
UN No.: NA	c) Bulk: NA				
Packing Group: NA		Vessel Stowage Location: NA			
DOT/ IMO Label: NA					
Special Provisions (172.102): NA		DOT reportable quantities: NA			

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.

Section 14 - Transport Information (continued)

Regulations Concerning the International Carriage of Dangerous Goods by Road (ADR) does not regulate Coke as a hazardous material.

Shipping Name: NOT Regulated

Classification Code: NA

UN No.: NA
Packing Group: NA
ADR Label: NA
Special Provisions: NA

Limited Quantities: NA

Packaging:

a) Packing Instructions: NA

b) Special Packing Provisions: NA

c) Mixed Packing Provisions: NA

Portable Tanks & Bulk Containers:

a) Instructions: NA

b) Special Provisions: NA

International Air Transport Association (IATA) does not regulate Coke as a hazardous material.

Shipping Name: NOT Regulated Passenger & Cargo Aircraft Cargo Aircraft Only: **Special Provisions:** Class/Division: NA Limited Quantity (EQ) NA Pkg Inst: NA Hazard Label (s): NA Pkg Inst: NA Pkg Inst: NA ERG Code: NA Max Net Qty/Pkg: UN No.: NA Max Net Qty/Pkg: Max Net Packing Group: NA Qty/Pkg: NA Excepted Quantities (EQ): NA

Pkg Inst – Packing Instructions Max Net Qty/Pkg – Maximum Net Quantity per Package

ERG – Emergency Response Drill Code

Coke does not have a Transport Dangerous Goods (TDG) classification.

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, Coke does not contain any of the 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.

State Regulations: The product, Coke 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:



This product can expose you to chemicals including silica, crystalline (airborne particles of respirable size), which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Other Regulations:

WHMIS Classification (Canadian): The product, Coke is not listed as a whole. However individual components are listed.

Ingredients	WHMIS Classification			
Silica Quartz	Carcinogenicity - Category 1A; Specific target organ toxicity - repeated exposure - 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

Section 16 - Other Information

Prepared By: United States Steel Corporation

Revision History:

10/20/2020 - Update to sections 2, 8, 11, 15

06/21/2017 - Update WHMIS 2015

04/14/2015 - Revision

06/12/2014 - Update to OSHA HAZCOM 2012

Expiration Date: 10/20/2023

04/08/2011 - Revision

03/03/2011 – Update of content and format to comply with GHS

10/25/1985 - 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.

 $\mbox{INSTABILITY} = \mathbf{0},$ Normally stable, even under fire exposure conditions, and are not reactive with water.

Coke (Various Sizes)

USS IHS No.: 18 Rev. 10/20

Section 16 - Other Information (continued)					
ABBREVIATIONS/ACRONYMS:					
ACGIH	American Conference of Governmental Industrial Hygienists	NIF	No Information Found		
BEIs	Biological Exposure Indices	NIOSH	National Institute for Occupational Safety and Health		
CAS	Chemical Abstracts Service	NTP	National Toxicology Program		
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	ORC	Organization Resources Counselors		
CFR	Code of Federal Regulations	OSHA	Occupational Safety and Health Administration		
CNS	Central Nervous System	PEL	Permissible Exposure Limit		
GI, GIT	Gastro-Intestinal, Gastro-Intestinal Tract	PNOR	Particulate Not Otherwise Regulated		
HMIS	Hazardous Materials Identification System	PNOC	Particulate Not Otherwise Classified		
IARC	International Agency for Research on Cancer	PPE	Personal Protective Equipment		
LC50	Median Lethal Concentration	ppm	parts per million		
LD50	Median Lethal Dose	RCRA	Resource Conservation and Recovery Act		
LD Lo	Lowest Dose to have killed animals or humans	RTECS	Registry of Toxic Effects of Chemical Substances		
LEL	Lower Explosive Limit	SARA	Superfund Amendment and Reauthorization Act		
$\mu g/m^3$	microgram per cubic meter of air	SCBA	Self-contained Breathing Apparatus		
mg/m ³	milligram per cubic meter of air	STEL	Short-term Exposure Limit		
mppcf	million particles per cubic foot	TLV	Threshold Limit Value		
SDS	Safety Data Sheet	TWA	Time-weighted Average		
MSHA	Mine Safety and Health Administration	UEL	Upper Explosive Limit		
NFPA	National Fire Protection Association				

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.