CHEMICAL SAFETY DATA SHEET

NOM-018-STPS-2000

Revision Number:	Document Name:	Preparation Date:		
1	HDS-CQ-01	10	April	2026

SECTION I: GENERAL INFORMATION

1.- COMPANY NAME THAT PREPARED THIS SAFETY DATA SHEET	**HARRI BELTZA, S.A. DE C.V.**	
2.- COMPANY ADDRESS	**342 Paseo de la Reforma Ave., Office 1 Floor 26, Juárez Neighborhood, Cuauhtémoc Borough, ZIP Code 06600, Mexico City**	
3.- EMERGENCY CONTACT INFORMATION	**SETIQ:**	**Nationwide Line (800) 002 1400**
		Mexico City (555) 559 1588
		Email: coatea@profepa.gob.mx

SECTION II: PRODUCT GENERAL INFORMATION

1.- CHEMICAL NAME	Petroleum Product or Hydrocarbon	**5.- PHYSICAL STATE**		Solid
2.- TRADE NAME	Petroleum Coke	**6.- COLOR**		Black
3.- OTHER COMMON NAMES	Coke, Green Coke, Thermally Cracked Coke	**7.- ODOR**		Odorless
4.- CHEMICAL GROUP	Not available	**8.- DATA SICT**	Class de Riesgo de Transporte SICT: Class 4.1, "Flammable solid orgánico N.E.P (petroleum coke)"	
9.- DESCRIPCIÓN GENERAL DEL PRODUCT	Solid mixture of high molecular weight hydrocarbons, whose composition depends on the crude oil source and the refining process in coking units.			

SECTION III: IDENTIFICATION OF THE CHEMICAL SUBSTANCE

COMPONENT	WEIGHT PERCENTAGE	ONU NUMBER	CAS NUMBER	GRADO DE RISK NFPA			
				S	I	R	E
Coke	/	1325	ND	0	1	0	ND
Sulfur	2.5 - 6.8%	1350	7704-34-9	1	1	0	ND
Moisture	8.0 - 12.0 %	ND	ND	ND	ND	ND	ND
Volatile matter	9.0 - 11.0%	ND	ND	ND	ND	ND	ND
Ashes	0.70%	ND	ND	ND	ND	ND	ND

SECTION IV: PHYSICAL AND CHEMICAL PROPERTIES

BOILING TEMPERATURE °C	**ND**	**Volatility percentage**	**ND**
IGNITION TEMPERATURE °C	**> 500 ºC / 932 ºF**	**Melting temperature °C**	**ND**
RELATIVE DENSITY (water=1)	**ND**	**Autoignition temperature °C**	**> 500 ºC / 932 ºF**
PH	**ND**	**Molecular weight**	**ND**
PHYSICAL STATE	**Solid**	**COLOR**	**Black**
ODOR	**Odorless**	**Evaporation value**	**ND**
SOLUBILITY IN WATER	**Insoluble**	**Vapor pressure**	**NA**
EXPLOSIVE LIMITS	**ND**	**Flammability limits**	**ND**

SECTION V: FIRE AND EXPLOSION RISK

Extinguishing agent:	For small fires, half Class B extinguishers such as CO2, dry chemicals, foam, or water spray can be used. For large fires, water spray, mist, or foam can be used. Do not use direct water streams to avoid spreading the fire.
FIRE PROTECTION EQUIPMENT:	Staff must be trained to use portable fire extinguishers in a way that minimizes the generation of dust clouds during discharge. Firefighting should only be carried out by those who are properly trained and equipped with appropriate protective equipment. Self-contained breathing apparatus and a full professional firefighter suit must be used.
PROCEDURE AND SPECIAL PRECAUTIONS DURING FIRE FIGHTING:	During control and firefighting operations, it is recommended to apply water in the form of spray or mist to cool containers, structures, and equipment exposed to heat, as well as to reduce the spread of the fire and provide protection to response personnel. It must be prevented that the product, combustion residues, or the water used in extinguishing enters drains, sewers, basements, or any confined space. In large-scale events, it is preferable to operate with fixed systems, monitors, or remote application devices. When conditions do not allow for safe intervention, personnel must withdraw from the area and allow the corresponding control protocols to take effect. The hazard zone must be immediately isolated, restricting access to people not involved in the emergency.

SECTION VI: REACTIVITY RISKS

Hazardous decomposition products:	At room temperature, the product does not undergo hazardous decomposition. However, when subjected to combustion, it may generate carbon monoxide, carbon dioxide, and other gases with asphyxiating, irritating, or corrosive properties.	**CONDITIONS TO AVOID**	It is recommended to avoid situations that promote contact with oxidizing agents or uncontrolled conditions that may increase the risk of reaction or combustion.
STABILITY:	It is considered a stable material under normal handling, storage, and use conditions.	**INCOMPATIBLE MATERIALS**	It should not come into contact with strong oxidizing agents, including liquid chlorine and oxygen under conditions that may favor a dangerous reaction.

DANGEROUS POLYMERIZATION:	Spontaneous polymerization or reactions of this type are not expected to occur during normal handling of this material.	**OTHER RELEVANT INFORMATION ABOUT REACTIVITY**	With the available technical reference information, no additional specific conditions are identified that need to be noted, beyond the incompatibilities already indicated.
SECTION VII: HEALTH RISKS AND FIRST AID			
Effects of acute exposure:			
1.- INGESTION:	Accidental ingestion may cause gastrointestinal discomfort. Possible symptoms include burning in the esophagus and stomach, nausea, severe vomiting, and there is a risk of aspiration of the material into the bronchi and lungs, which can lead to inflammation and infectious complications		
2.- INHALATION:	Under normal conditions and at room temperature, the product does not represent a significant inhalation risk. However, during handling, crushing, screening, loading, or transfer, coke dust may be generated that can irritate the nose and throat. In addition, ash or fine fractions may contain significant concentrations of metals such as nickel and vanadium, which can be harmful if inhaled in sufficient amounts.		
3.- SKIN CONTACT:	Hot coke handling can cause severe burns. In normal handling, repeated or prolonged contact may cause stinging, roughness, dryness, and skin irritation.		
4.-EYE CONTACT:	The entry of particles into the eyes can cause irritation. If the material is hot, contact can cause significant injuries to the cornea and conjunctiva, so it requires immediate specialized medical attention.		
INFORMATION ON CHRONIC EXPOSURE:	Repeated or prolonged exposure, especially through skin contact, may cause redness, inflammation, itching, dryness, cracking, and possible secondary infection		
ADDITIONAL TOXICOLOGICAL INFORMATION:	With the available technical reference information, no specific LC50 or LD50 values are reported for the product in this sheet. Nor does that source provide a classification as carcinogenic, mutagenic, or teratogenic.		
FIRST AID PROCEDURE:			
IN CASE OF INGESTION:	Rinse the mouth with water to remove material residues. If the person is conscious, fluids may be given and their condition monitored. Do not induce vomiting in an unconscious person. Seek immediate medical attention if there are symptoms, persistent vomiting, or suspicion of aspiration.		
IN CASE OF INHALATION:	Move the person to a well-ventilated area with fresh air. If they are not breathing, administer artificial respiration by trained personnel, taking the appropriate precautions. Keep the person at rest and warm. Seek immediate medical attention if symptoms are present or there has been significant exposure.		
IN CASE OF SKIN CONTACT:	Remove contaminated clothing and footwear immediately. Wash the affected area with plenty of water until the product residue is removed. Wash clothing before reuse. If irritation persists or there is a burn, seek immediate medical attention.		
IN CASE OF EYE CONTACT:	Wash immediately with plenty of water for at least 15 minutes. Keep eyelids open to ensure proper cleaning. If irritation persists, or if there was contact with hot material, seek immediate specialized medical evaluation.		
OTHER MEDICAL CONSIDERATIONS:	No specific antidote is identified. It should be considered that aspiration of the material into the lungs may cause inflammation and risk of infection, so special caution should be taken in episodes involving vomiting.		
SECTION VIII: INSTRUCTIONS IN CASE OF LEAK OR SPILL			
PROCEDURE AND IMMEDIATE PRECAUTIONS:	In the event of an accidental release of the product, action must be taken quickly to control the area and reduce risk to personnel, facilities, and the environment. As an initial measure, all nearby ignition sources must be eliminated, avoiding smoking or the use of open flames, sparks, or equipment that could trigger combustion. Likewise, the spilled material must not be touched or stepped on without appropriate protective measures. Access to the site must be immediately restricted, keeping away people who are not involved in the emergency response. Whenever possible, personnel should position themselves in a safe area, avoiding low-lying or confined spaces and seeking a position upwind. It must be prevented that coke or residues derived from the spill enter drains, sewers, basements, or any confined space. In the case of a significant release, the material must be contained, collected, and placed in suitable containers for handling and subsequent disposal. For product recovery, it is recommended to use non-sparking tools, as well as to ensure grounding of the equipment used during the operation. In enclosed spaces or areas with insufficient ventilation, the site must be ventilated before entry, and if necessary, explosion-proof mechanical ventilation should be considered.		
MITIGATION METHODS TO CONTROL THE SUBSTANCE:		**ND**	
RECOMMENDATIONS FOR INSULATION AND EVAPORATION:	As a general precautionary measure, it is recommended to isolate the spill or escape area within a minimum radius of 25 meters in all directions. When the event is of greater magnitude, an initial evacuation downwind of at least 100 meters may be considered. In the case of a fire involving a transport unit, railcar, or involved tank truck, an initial isolation and evacuation within a radius of up to 800 meters should be considered.		
ADDITIONAL OPERATIONAL	As a first step, the emergency protocol must be activated and the corresponding contact number provided in this safety data sheet, as defined by the company, must be notified.		
SECTION IX: SPECIAL PROTECTION IN EMERGENCY SITUATIONS			
PERSONAL PROTECTIVE EQUIPMENT	The selection of personal protective equipment must be carried out based on the actual operating conditions, the magnitude of the event, and the level of exposure to the product or its dust.		
	In spill response activities, accidental releases, or emergency operations, the use of appropriate protective equipment is recommended, including boots, gloves, and protective clothing resistant to contact with the material. When there is a possibility of prolonged skin contact, it is suggested to use rubber gloves or other equivalent protective material.		
	For eye and face protection, safety glasses with side protection should be used or, when the activity requires it, a face shield. The use of contact lenses is not recommended during product handling or in emergency response tasks.		
	The need for respiratory protection will depend on the concentration of dust, vapors, or mists present in the environment. In case of		

	spills with generation of hazardous atmospheres or in confined spaces, self-contained breathing apparatus or respirators or face masks should be used
	In areas where this material is handled, it is recommended to have shower and eyewash stations located in accessible, clearly marked locations and kept in permanent working condition.
	When it comes to firefighting in confined spaces, emergency personnel must use self-contained breathing apparatus and full professional firefighter gear, considering that such protection may be limited in certain extreme conditions of the incident.

SECTION X: TRANSPORTATION INFORMATION

NÚMERO ONU:	1325	**NORMA SICT:**	NOM-004-SCT-2008
Transport Risk Class	Class 4.1, "Flammable solid orgánico N.E.P (petroleum coke)"	**EMERGENCY RESPONSE GUIDE**	Guide number 133

Units that transport this product must have the corresponding identification of the transported material, including applicable hazard signage in accordance with current regulations on the transport of materials and hazardous waste. Before loading, the carrier must verify that the unit is in adequate physical, mechanical, and operational condition to perform the service safely. During the journey, the operator must avoid unnecessary stops that are not part of the normal operation of the service. Likewise, efforts should be made not to travel through central areas of cities or towns when bypasses or peripheral routes are available. Units designated for transporting this material must not carry persons unrelated to the vehicle's operation or the service itself. The transport of the product must be carried out in accordance with applicable regulations and internal safety, prevention, and emergency response procedures corresponding to the type of operation

DIAGRAMAS DE SEGURIDAD

SECTION XI: ECOLOGICAL INFORMATION

BEHAVIOR OF THE SUBSTANCE IN CASE OF RELEASE INTO LAND, WATER AND AIR; EFFECTS ON FLORA AND FAUNA	In the event of release into the environment, the dispersion of the product must be avoided and proper management of the waste generated during containment and cleanup activities must be ensured. Contaminated materials used in responding to spills or leaks must be collected and disposed of appropriately, in accordance with applicable regulations.
	The soil and other materials affected by a spill must be treated and disposed of in accordance with the General Law for the Prevention and Comprehensive Management of Waste (LGPGIR), its Regulations, and NOM-SEMARNAT/SS-2003.
	When the spilled volume does not exceed 1 m^3, actions must be carried out immediately to contain the material and limit the area. These actions must be included within the prevention and response programs for contingencies or environmental emergencies applicable to the operation.
	When a spill exceeds 1 m^3, in addition to the immediate containment, recovery, and cleanup measures, PROFEPA and the competent authorities must be notified. Likewise, the measures determined by the authorities must be followed, characterization of the contaminated site must be initiated, and, where appropriate, the corresponding remediation actions must be carried out.

SECTION XII: ECOLOGICAL INFORMATION

RECOMMENDATIONS FOR SAFE HANDLING	During the handling of petroleum coke, personnel should not consume food or drinks or smoke in the work areas. It is also not recommended to use contact lenses during handling.
	Loading, unloading, transfer, screening operations, or any other activity involving contact with the product must be carried out under controlled conditions, seeking to minimize dust generation and reducing the possibility of prolonged direct contact.
	Likewise, the equipment used in handling this material must be grounded in order to reduce risks associated with the buildup of static electricity or sources of ignition.
STORAGE CONDITIONS	The product must be stored in suitable, resistant and properly sealed containers or areas, in dry, cool, ventilated places protected from extreme temperature conditions. It must be kept away from sources of heat, ignition, and incompatible materials.
	It is recommended to keep the product isolated from conditions that could promote its heating, combustion, or dispersion in the form of fine particles.
OTHER PRECAUTIONS	Clothing, rags, or materials contaminated with the product must be properly cleaned before being stored or reused.
	Pressure should not be used to empty containers or receptacles that have contained this material. Likewise, containers or receptacles with product residues must not be pressurized, heated, welded, or exposed to open flame or other sources of ignition, as they may retain traces of the material and pose a risk.

SECTION XIII: ADDITIONAL INFORMATION

The present information was prepared based on technical and regulatory documentation applicable to the handling, storage, transportation, and emergency response related to petroleum coke. Its content should be understood as a support guide for safety, prevention, and operational reference purposes.

Among the main references considered for the integration of this information are those available in the areas of hazard identification and communication, land transportation of hazardous materials, waste management, and emergency response, including NOM-018-STPS-2000, NOM-010-STPS-1999, NOM-004-SCT-2008, LGPGIR, its Regulations, and NOM-138-SEMARNAT/SS-2003. The base sheet also references complementary technical sources such as NIOSH guidelines and NFPA criteria.

For technical interpretation purposes, the reference documentation uses commonly used abbreviations in chemical safety and emergency response, such as UN, CAS, NFPA, IDLH, LC50, LD50, NA, and ND, among others. It also includes diamond-type risk classification criteria for health, flammability, reactivity, and special hazards.

RISK LEVEL

Diamond model		**S = HEALTH (BLUE DIAMOND)**	**I = FLAMMABILITY (RED DIAMOND)**	**R = REACTIVITY (YELLOW DIAMOND)**	**E = SPECIAL (WHITE DIAMOND)**

	4	Fatal	Extremely flammable	It can detonate	Oxidizing (OXI)
	3	Extremely dangerous	Flammable	It can detonate, requires an initiation source.	Acid (ACID)
	2	Slightly dangerous	Fuel	Violent chemical change	Alkaline (ALC)
	1	Risky	Flammable if heated	Inestable si se calienta	Corrosive (CORR)
	0	Normal material	It doesn't burn	Stable	Do not use water (W)
					Radioactive material