In accordance with Regulation (EC) 1907/2006 (REACH) and Regulation (EC) 1272/2008 (CLP)

SAFETY DATA SHEET

Coke

Revision Date: 07/02/2019

Version: 1.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name: Metallurgical Coke

REACH Registration Number: Substance included in Annex V of Regulation (EC) 1907/2006 exempted from the registration obligation pursuant to Article 2 paragraph 7 of the same.

Name: Coke

CAS Number: 65996-77-2

EC Number: 266-010-4

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: In cement plants and the steel industry as a fuel, reducing agent, refining agent, fluxing agent, and carburizing agent.

1.3 Details of the supplier of the safety data sheet

TECNOSIDER SRL

Via Giovanni Brasi 4

24065 Lovere (Bergamo) Italy

Tel: +39 035 962104

Fax: +39 035 983505

info@tecnosidersrl.com

1.4 Emergency telephone number

CAV "Osp. Pediatrico Bambino Gesù" – Rome – Tel. 06 68593726

Az. Osp. Univ. Foggia – Foggia – Tel. 0881 732326

Az. Osp. "A. Cardarelli" – Naples – Tel. 081 7472870

CAV Policlinico "Umberto I" – Rome – Tel. 06 49978000

CAV Policlinico "A. Gemelli" – Rome – Tel. 06 3054343

Az. Osp. "Careggi" U.O. Medical Toxicology – Florence – Tel. 055 7947819

CAV National Toxicology Information Center – Pavia – Tel. 0382 24444

Osp. Niguarda Ca' Granda – Milan – Tel. 02 66101029

Azienda Ospedaliera Papa Giovanni XXII – Bergamo – Tel. 800883300

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

The product is not classified as hazardous under the provisions of Regulation (EC) 1272/2008 (CLP) (and subsequent amendments and adjustments).

2.2 Label Elements

Hazard pictogram: Not applicable

Warning: Not applicable

Hazard statements: Not applicable

Precautionary statements: Not applicable

2.3 Other hazards

Based on available data, the product does not contain PBT or vPvB substances in a percentage greater than 0.1%. Processing can generate dust that can enter the body through inhalation. High concentrations of dust can irritate the throat and upper respiratory tract, causing coughing. Prolonged inhalation of dust may increase the risk of developing lung diseases. Dust may irritate the eyes and skin. Ingestion of dust may cause nausea and vomiting.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Product name: Coke

CAS Number: 65996-77-2

EC Number: 266-010-4

Product of variable composition UVCB derived from high-temperature coal distillation, primarily consisting of carbon, and may contain variable amounts of ash, sulfur, hydrogen, and nitrogen.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Eye contact: Remove any contact lenses. Immediately rinse with water, lifting eyelids, for at least 10-15 minutes. Do not rub eyes and, if necessary, use physiological solutions. Consult a doctor if the problem persists.

Skin contact: Remove contaminated clothing and wash skin with water and soap. If irritation persists or increases, consult a doctor. Wash contaminated clothing before reuse.

Inhalation: Remove the patient from the exposure area, ensure they are warm and at rest. If breathing is difficult, consult a doctor.

Ingestion: Do not induce vomiting. Rinse mouth with water. If symptoms persist, consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed

Information not available.

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor: Treat symptomatically.

Specific treatments: No specific treatment.

SECTION 5: FIREFIGHTING MEASURES

5.1 General measures

Suitable extinguishing media:

In case of an outdoor fire, traditional means such as carbon dioxide, foam, powder, and water mist should be used: spray the mass inside as the fire develops and persists below the surface. For indoor fires, it may be sufficient to close openings to prevent the influx of air, ensuring the structure is cooled.

Unsuitable extinguishing media:

Do not use water jets.

5.2 Special hazards arising from the substance or mixture

Thermal decomposition combined with the contact of the incandescent material with water can lead to the development of atmospheres containing carbon monoxide and methane. Avoid inhaling combustion products. Overpressure can occur in containers exposed to fire.

5.3 Advice for firefighters

Special precautions for firefighters:

Move containers away from the fire area if there is no risk. Use water spray to keep containers exposed to fire cool.

Special protective equipment for fire-fighting personnel:

Standard firefighting clothing, such as a self-contained breathing apparatus with compressed air and an open circuit (EN 137), flame-resistant suit (EN 469), flame-resistant gloves (EN 659), and fire-fighting boots (HO A29 or A30).

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures

Wear appropriate personal protective equipment (see Section 8) during spill removal operations. Avoid the formation and spread of dust and direct contact with skin, eyes, and inhalation. Ensure good ventilation. These instructions apply to both processing and emergency personnel.

6.2 Environmental precautions

Prevent the dispersion of spilled material and its contact with soil, watercourses, and sewage systems. In case of penetration into watercourses, soil, or sewage systems, inform the relevant authorities.

6.3 Methods and materials for containment and cleaning up

Recycle, if possible. Contain with earth or inert material. Collect most of the material and dispose of the residue with water jets. Disposal of contaminated material must be carried out in accordance with the provisions of Section 13. Collect dust with mechanical means; if not possible, moisten the dust before manual collection; residues can be eliminated with water jets. Use sealed containers for disposal in accordance with Section 13.

6.4 References to other sections

For information on personal protective equipment, refer to Section 8. For disposal information, refer to Section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Protective measures: Avoid contact with eyes and prolonged contact with skin. Avoid generating airborne dust. Provide mechanical ventilation if handling generates dust. Avoid the accumulation of electrostatic charges. In open environments, piles should be wetted with spray systems to prevent dust formation.

General hygiene practices:

Eating, drinking, and smoking are prohibited in areas where the material is handled, stored, or processed. Persons using the product should wash their hands and face before eating or drinking.

e smoking. Remove contaminated clothing and protective equipment before entering dining areas. See also Section 8 for additional hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store according to local regulations. Keep in a dry, well-ventilated place at room temperature. Store in original, tightly closed containers. Store separately from oxidizing agents. In general, keep the product away from heat sources, open flames, and ignition sources. Place the material on a level surface to avoid the formation of gas pockets.

7.3 Specific end uses

Information not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

The information in this section contains general instructions and guidance.

8.1 Control parameters

Comply with legal exposure limits in the workplace for any type of airborne dust (e.g., total dust, respirable dust). Using data related to coal dust as a reference:

NIOHS: 2.0 mg/m³ TWA - Respirable

8.2 Exposure controls

8.2.1 Organizational measures

Hygiene measures: Ensure the availability of an eye wash station. Before eating, smoking, using the bathroom, and at the end of the work period, wash hands, arms, and face thoroughly after handling chemicals. Remove any contaminated clothing immediately, do not blow or brush off contamination.

8.2.2 Personal protective equipment

Eye and face protection: The use of safety glasses with side protection conforming to UNI EN 166 is recommended when handling the product.

Hand protection: It is recommended to wear gloves suitable for the work being performed (EN 374). For the final choice of glove material, consider compatibility, degradation, breakthrough time, and permeation. For mixtures, the resistance of work gloves to chemical agents should be checked before use as it is not predictable. Gloves have a wear time that depends on the duration and mode of use.

Skin protection: Personal protective equipment for the body should be chosen and used based on the risks associated with the task being performed.

Respiratory protection: If the threshold value (e.g., TLV-TWA) of the substance or one or more of the substances present in the product is exceeded, it is recommended to wear a type FFP1 or higher face filter, unless otherwise provided by the risk assessment (ref. EN 149). The use of respiratory protective equipment is necessary if the technical measures adopted are insufficient to limit expoexposure of the worker to the threshold values considered. The protection offered by masks is still limited. If the substance in question is odorless or its odor threshold is higher than the corresponding TLV-TWA and in case of emergency, wear a self-

contained breathing apparatus with an open circuit (ref. EN 137) or an airline respirator (ref. EN 138). For the correct choice of respiratory protective device, refer to EN 529.

8.2.3 Environmental protection

Exposure controls: Emissions from ventilation or work processes should be controlled to ensure compliance with environmental protection legislation.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state: Dark gray solid.

Odor: Odorless

Odor threshold: Not applicable

pH: Not applicable

Melting point / freezing point: > 2000°C

Initial boiling point and boiling range: Not required for substances with a melting point > 300°C.

Flash point: Not applicable to inorganic substances.

Evaporation rate: Not applicable, solid.

Flammability (solid, gas): Not available.

Upper / lower flammability or explosive limits: Not available.

Vapor pressure: Not required for substances with a melting point > 300°C.

Vapor density: Not applicable, solid.

Relative density: 0.6-0.9 g/cm³

Solubility: Insoluble in water.

Partition coefficient n-octanol / water: Not applicable, insoluble in water.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: Not applicable, solid substance.

Explosive properties: Not available.

Oxidizing properties: Not available.

9.2 Other information

No additional information.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Under normal conditions of use and storage, there are no particular risks of reaction with other substances.

10.2 Chemical stability

The product is stable under normal conditions of use and storage.

10.3 Possibility of hazardous reactions

Under normal conditions of use and storage, hazardous reactions are not foreseeable.

sure.

10.4 Conditions to Avoid None in particular. However, follow the usual precautions for chemical products.

10.5 Incompatible Materials Information not available.

10.6 Hazardous Decomposition Products Information not available.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects Processing can generate dust with potential health effects. Dust can enter the body through inhalation. High concentrations of dust can irritate the throat and respiratory tract, causing coughing. Ingesting dust could cause nausea and vomiting. Dust can cause mechanical abrasion.

The product is not required to be classified according to the calculation method of the EC directive on the classification of preparations in its latest valid version.

SECTION 12: ECOLOGICAL INFORMATION

Use according to good working practices, avoiding dispersing the product into the environment. Notify the competent authorities if the product has reached water courses or if it has contaminated the soil or vegetation.

12.1 Toxicity No environmental toxicity values are available.

12.2 Persistence and Degradability Information not available.

12.3 Bioaccumulation Potential Information not available.

12.4 Mobility in Soil Information not available.

12.5 Results of PBT and vPvB Assessment Based on available data, the product does not contain PBT or vPvB substances in a percentage greater than 0.1%.

12.6 Other Adverse Effects Information not available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods Waste generation should be avoided or minimized where possible. Significant quantities of residual product should not be disposed of via the sewer system but should be treated in a suitable waste treatment facility. Dispose of excess and non-recyclable products through an authorized waste disposal company. Disposal of this product, solutions, and any by-products must always be carried out in accordance with legal regulations on environmental protection and waste disposal, as well as the requirements of any relevant local authority. Waste packaging should be recycled. Do not dispose of the product and container without proper precautions. Empty containers or liners may retain product residues. Avoid dispersal and runoff of spilled material and contact with soil, water courses, drains, and sewers.

SECTION 14: TRANSPORT INFORMATION

The product is not classified under any hazard class for the transport of dangerous goods and is therefore not subject to the relevant modal regulations: IMDG (sea), ADR (road), RID (rail), ICAO/IATA (air).

14.1 UN Number Not applicable.

14.2 UN Shipping Name Not applicable.

14.3 Transport Hazard Classes Not applicable.

14.4 Packing Group Not applicable.

14.5 Environmental Hazards Not applicable.

14.6 Special Precautions for Users Not applicable.

14.7 Bulk Transport According to Annex II of MARPOL and the IBC Code Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1 Specific Legislation and Regulations on Health, Safety, and Environment for the Substance or Mixture This substance does not have a registration number as it is exempt from registration. Annex XVII - Restrictions on the manufacture, placing on the market, and use of certain dangerous substances, preparations, and articles: Not applicable. Other EU regulations: Not applicable. European Inventory: All components are listed or exempt. Candidate List of Chemicals: Not listed.

15.2 Chemical Safety Assessment A chemical safety assessment has not been conducted

SECTION 16: OTHER INFORMATION

This Safety Data Sheet has been prepared in accordance with Regulations 1907/2006/EC, 830/2015/EU, and 1272/2008/EC.

Main Bibliographic Sources:

- Regulation (EC) 1907/2006 of the European Parliament (REACH)
- Regulation (EC) 1272/2008 of the European Parliament (CLP)
- Regulation (EC) 790/2009 of the European Parliament (1st ATP. CLP)
- Regulation (EU) 830/2015 of the European Parliament
- Regulation (EU) 286/2011 of the European Parliament (2nd ATP. CLP)
- Regulation (EU) 618/2012 of the European Parliament (3rd ATP. CLP)
- Regulation (EU) 487/2013 of the European Parliament (4th ATP. CLP)
- Regulation (EU) 944/2013 of the European Parliament (5th ATP. CLP)
- Regulation (EU) 605/2014 of the European Parliament (6th ATP. CLP)
- Regulation (EU) 2015/1221 of the European Parliament (7th ATP. CLP)
- Regulation (EU) 2016/918 of the European Parliament (8th ATP. CLP)
- Regulation (EU) 2016/1179 of the European Parliament (9th ATP. CLP)
- Regulation (EU) 2017/776 of the European Parliament (10th ATP. CLP)

Workplace Exposure Limits:

- Italy Legislative Decree April 9, 2008, No. 81.
- OEL EU Directive 2019/130/EU; 2017/2398/EU; 2017/164/EU; 2009/161/EU; 2006/15/EC; 2004/37/EC; 2000/39/EC.

Notice to Reader: Based on the information available to us, the details contained in this document are accurate. However, neither the supplier mentioned above nor any of its affiliates assume responsibility for the accuracy or completeness of such information. The final determination of the suitability of the materials is the sole responsibility of the user. All materials may present unforeseen risks and should be used with caution. Although some risks are described in this document, it cannot be guaranteed that these are the only existing risks.