

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

SAFETY DATA SHEET

Recarburizer Revision date: 07/09/2016 Version: 2

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

1.1 Product identifier

- Trade name: Recarburizer
- Name: Calcined petroleum coke
- REACH registration number: Substance included in Annex V of Regulation (EC) 1907/2006 exempted from registration under Article 2, paragraph 7.
- CAS number: 64743-05-1
- EC number: 265-210-9

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

- Identified uses: Use in the iron and steel industry, carburizing of molten metal baths, processing of steel with foamy slag formation.

1.3 Details of the supplier of the safety data sheet

- TECNOSIDER SRL
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- 24065 LOVERE (BERGAMO) ITALY
- TEL +39 035 962104
- FAX +39 035 983505
- info@tecnosidersrl.com

1.4 Emergency telephone number

- CAVp “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. Toxicology – Florence – Tel. 055 7947819
- CAV National Toxicology Information Centre – 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: None
- Signal word: None
- Hazard statements: None
- Precautionary statements: Not applicable

2.3 Other hazards

- Based on available data, the product does not contain PBT or vPvB substances in percentages greater than 0.1%.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

- Product name: Calcined petroleum coke
- REACH registration number: Substance included in Annex V of Regulation (EC) 1907/2006 exempted from registration under Article 2, paragraph 7.
- CAS number: 64743-05-1
- EC number: 265-210-9
- Impurities: sulfur; ash; polynuclear aromatic hydrocarbons (about 5 ppm); volatile materials (0.2-0.5%) at a temperature of approximately 1,000°C.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

- Eye contact: Rinse immediately with water, lifting eyelids, for at least 10 minutes and seek medical advice.
- Skin contact: Remove contaminated clothing and wash skin with soap and water.
- Inhalation: Remove the patient from the exposure, ensure they are warm and at rest. If symptoms persist, seek medical advice.

- Ingestion: Do not induce vomiting. Rinse mouth with water. If symptoms persist, seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

- To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly studied.

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: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

- Suitable extinguishing media: water spray, foam extinguishers, carbon dioxide, water.
- Unsuitable extinguishing media: None.

5.2 Special hazards arising from the substance or mixture

- In general: when burning with insufficient air (oxygen), petroleum coke forms carbon monoxide. The low content of volatile materials precludes the risk of explosion from dust accumulation in the environment. Possible reactions with strong oxidizing agents.

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-fighters: Wear standard firefighting gear such as a self-contained breathing apparatus (EN 137), flame-resistant clothing (EN 469), flame-resistant gloves (EN 659), and firefighter 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. These instructions apply to both operational and emergency response personnel.

6.2 Environmental precautions Avoid dispersal of spilled material and contact with soil, waterways, and sewers. In case of penetration into waterways, soil, or the sewer system, inform the relevant authorities.

6.3 Methods and material for containment and cleaning up Collect only dry material. Do not reuse wet product even if thoroughly dried. Avoid dry sweeping and use a vacuum. Prevent dust formation. Place waste in a properly labeled waste container. Use spark-proof tools and explosion-proof equipment. Dispose of through an authorized waste disposal company.

6.4 Reference to other sections For safe handling, refer to Section 7. 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 skin contact. Avoid generating airborne dust. Ensure adequate ventilation to ensure occupational exposure limits are not exceeded. Ensure packaging and materials are dry before adding them to the bath. Keep away from liquids, flames, and oxidizing agents.

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, drinking, or smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities Store according to local regulations. Store in a dry place, protected from water and liquids in general. Store in original closed containers. Store separately from oxidizing agents with which it may trigger reactions.

7.3 Specific end uses Apart from the uses described in Section 1.2, no other specific uses are identified.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

The information in this section contains general instructions and guidance.

8.1 Control parameters Respect legal exposure limits in workplaces for any type of airborne dust (e.g., total dust, respirable dust). Although precise data is lacking, literature (OSHA) reports nuisance threshold limits PEL (permissible exposure limit) of 15 mg/m³ as total dust; 10 mg/m³ as harmful dust; 5 mg/m³ as respirable dust.

8.2 Exposure controls

8.2.1 Organizational measures

Hygienic measures: Operations mainly concern smelting furnaces. Ventilate the work area and ensure adequate extraction. Ensure proximity of an eye shower and safety showers in the workplace. Before eating, smoking, using the toilet, and at the end of the work period, wash hands, arms, and face thoroughly after handling chemical products.

8.2.2 Personal protection equipment

Eye and face protection: Safety glasses with side shields conforming to UNI EN 166 are recommended when handling the product to protect against dust.

Hand protection: Wear gloves suitable for the work or task performed.

Skin protection: Choose and use personal protective equipment for the body based on the risks anticipated for the task performed.

Respiratory protection: If exposed to concentrations above exposure limits, use appropriate protective devices proportional to the known or anticipated level of exposure and conforming to relevant EN standards (dust mask certified according to UNI EN 140).

8.2.3 Environmental protection

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- Physical state: Black granulate
- Odor: Odorless
- Odor threshold: Not applicable
- pH: Not applicable (insoluble in water).
- Melting point/freezing point: > 300°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 applicable to inorganic substances. **Upper/lower flammability or explosive limits:** Not applicable. **Vapor pressure:** Not required for substances with a melting point > 300°C. **Vapor density:** Not applicable, inorganic solid. **Relative density:** 1.8 – 2.2 g/cm³ **Solubility:** Insoluble in water. **Partition coefficient n-octanol/water:** Not required for inorganic substances. **Auto-ignition temperature:** The substance is not auto-flammable. **Decomposition temperature:** Not available. **Viscosity:** Not applicable, solid substance. **Explosive properties:** The substance does not contain chemical groups associated with explosive properties. **Oxidizing properties:** The substance does not contain chemical groups associated with oxidizing properties.
- **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 hazards of reaction with other substances.
- **10.2 Chemical stability** The product is stable under normal conditions of use and storage. Contact with oxidizing substances may cause dangerous reactions.

- **10.3 Possibility of hazardous reactions** Under normal conditions of use and storage, hazardous reactions are not expected. Contact with oxidizing substances may cause dangerous reactions.
- **10.4 Conditions to avoid** To the best of our knowledge, no specific conditions to avoid.
- **10.5 Incompatible materials** Oxidizing agents.
- **10.6 Hazardous decomposition products** Carbon monoxide.
- **SECTION 11: TOXICOLOGICAL INFORMATION**
- **11.1 Information on toxicological effects** Unless otherwise specified, the data required by Regulation 830/2015/EU below are considered unavailable: a) Acute toxicity; b) Skin corrosion/irritation; c) Serious eye damage/irritation; d) Respiratory or skin sensitization; e) Germ cell mutagenicity; f) Carcinogenicity; g) Reproductive toxicity; h) Specific target organ toxicity (STOT) — single exposure; i) Specific target organ toxicity (STOT) — repeated exposure; j) Aspiration hazard.
- **SECTION 12: ECOLOGICAL INFORMATION**
- **12.1 Toxicity** Environmental toxicity values are not available. Substance not considered harmful to the environment. Insoluble in water.
- **12.2 Persistence and degradability** Information not available.
- **12.3 Bioaccumulative 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 higher than 0.1%.
- **12.6 Other adverse effects** No known significant effects or critical hazards.
- **SECTION 13: DISPOSAL CONSIDERATIONS**
- **13.1 Waste treatment methods** Waste generation should be avoided or minimized wherever possible. Significant quantities of product waste residues should not be disposed of via sewers but processed in an appropriate effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions, and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Empty containers or liners may retain product residues.
- **SECTION 14: TRANSPORT INFORMATION**
- The product does not fall under any hazard class for the transport of dangerous goods and is, therefore, not subject to modal transport regulations: IMDG (by sea), ADR (by road), RID (by rail), ICAO/IATA (by air).
- **14.1 UN number** Not relevant.
- **14.2 UN proper shipping name** Not relevant.

14.3 Transport hazard class(es) Not relevant. **14.4 Packing group** Not relevant. **14.5 Environmental hazards** Not relevant. **14.6 Special precautions for user** Not relevant. **14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not relevant.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture For this substance, a registration number is not available as the substance is exempt from registration. Annex XVII - Restrictions on the manufacture, placing on the

market, and use of certain dangerous substances, mixtures, and articles: Not applicable. Other EU regulations: Not applicable. European Inventory: All components are listed or exempt. Blacklist chemicals: Not listed. Chemicals list: Present.

15.2 Chemical safety assessment A chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

This Safety Data Sheet (SDS) has been prepared in accordance with Regulations 1907/2006/EC, 830/2015/EU, and 1272/2008/EC. As this substance is not classified under Regulation 1272/2008/EC and does not meet the requirements of Article 31 of Regulation 1907/2006/EC, an SDS is not required. Classification according to Regulation (EC) No.1272/2008 [CLP/GHS]: Not classified.

Principal 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 (I Atp. CLP)
- Regulation (EU) 830/2015 of the European Parliament
- Regulation (EC) 286/2011 of the European Parliament (II Atp. CLP)
- Regulation (EC) 618/2012 of the European Parliament (III ATP. CLP)
- Regulation (EC) 487/2013 of the European Parliament (IV ATP. CLP)
- Regulation (EC) 944/2013 of the European Parliament (V ATP. CLP)
- Regulation (EU) 605/2014 of the European Parliament (VI Atp. CLP)
- Exposure limits to chemical agents in the workplace:
 - Italy Legislative Decree 9 April 2008, n.81.
 - OEL EU Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.

Notice to the reader: Based on the data in our possession, the information contained in this document is correct. However, neither the above-mentioned supplier nor any of its affiliates assume any responsibility for the accuracy or completeness of such information. The final determination of the suitability of materials is the sole responsibility of the user. All materials may present unknown 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.