
Product	GREEN PETROLEUM COKE - II	Date:	2013/07/15
		Edition:	4

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1. Product identifier

- Trade name: GREEN PETROLEUM COKE - II
- Chemical name: PETROLEUM COKE
- EC index no.: -
- EC no.: 265-080-3
- CAS no.: 64741-79-3
- Registration No.: Not subject of the REACH Regulation. Exemption of registration regarding Annex V of REACH Regulation.
- Product code: 4000000

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

- Relevant identified uses: Energy fuel for furnaces/fire boxes for which solid or powdered (fluidized) fuels are used.
- Uses advised against: The uses that are in the list above are relevant. Other uses are not recommended unless an assessment that proves that the related risks are controlled has been conducted before starting that use.

1.3. Details of the supplier of the safety data sheet

- Manufacturer/supplier: **INA-Industrija nafte, d.d.**
- Address: Av. Većeslava Holjevca 10
p.p. 555, 10002 Zagreb, CROATIA
- Phone: 00-385-1-6450-842 / 00-385-1-6451-075 (24 h)
- Fax: 00-385-1-6452-050 e-mail: sds@ina.hr
- Responsible person: Quality, Standardisation&Intellectual Property Department
Hrvoje Raukar, B. Sc. Tel. 00-385-1-6450-602
Tatjana Benko, B. Sc.

1.4. Emergency Telephone Number

- Emergency Service Telephone Number: **112**
- National Protection and Rescue Directorate
Nehajska 5, 10000 Zagreb
e-mail: info@duzs.hr
00-385-1-3650-011
00-385-1-3650-084
00-385-1-3650-082
00-385-1-3650-083
- Medical Information Telephone Number: **00-385-1-23-48-342**

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

2.1.1. Classification according to Regulation (EC) No 1272/2008 (CLP/GHS):

According to current knowledge this substance was not classified in Annex VI of CLP Regulation

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(EC) No 1272/2008 containing a list of hazardous substances.

Full text of H-phrases: see section 16.

2.1.2. Classification according to Directive 67/548/EEC or 1999/45/EC:

This substance was not classified in Annex I of Directive 67/548/EEC containing a list of hazardous substances.

Full text of R-phrases: see section 16.

2.2. Substance or mixture labelling

2.2.1. Labelling according to Regulation (EC) No 1272/2008 (CLP/GHS)

Hazard pictograms:

No hazard label required.

Signal word: -

Hazard statements (H): -

Precautionary statements (P): P260 Do not breathe dust.

P273 Avoid release to the environment.

2.2.2. Labelling according to Directive 67/548/EEC or 1999/45/EC

Hazard symbols:

No hazard label required.

R-phrases: -

S-phrases: S22 Do not breathe dust.

S61 Avoid release to the environment. Refer to special instructions/safety data sheet.

2.3. Other hazards

No data available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance:	x				Mixture:		
- Components contributing to product hazardousness:							
Substance name	Substance identification			[%]	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No 1272/2008 (CLP/GHS)	
	CAS no.	EC no.	Registration no. (REACH)				
Green Petroleum Coke (≤ 94% carbon)	64741-79-3	265-080-3	-	≤100.00	Not classification required.	Not classification required.	

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4. FIRST AID MEASURES

- General information:

- First aid procedures

- after inhalation: Remove the person to fresh air. If breathing has stopped, give artificial respiration and immediately seek medical assistance.
- after skin contact: Immediately remove contaminated clothes and footwear. Wash the site of contact thoroughly with soap and water. If skin irritation persists, seek medical assistance.
- after eye contact: Hold the eyelids apart with clean hands and rinse with tepid water at least for 15 minutes.
- after ingestion: If large quantities are swallowed, and if the person is conscious, give 2 glasses of water or milk to drink and immediately seek medical assistance.

- Note to person administering first aid/ physician: No data available.

5. FIRE FIGHTING MEASURES

- Extinguishing media:

- SUITABLE: For smaller fires CO₂, foam or water. For larger fires foam, water spray.
- NOT SUITABLE: Water jet.

- Fire fighting measures for special hazards: Eliminate all sources of ignition.

- Special fire fighting measures: Water spray and foam must be used carefully to avoid foaming. Only personnel trained in fire-fighting should use water spray.

- Special fire fighter equipment: Self-contained breathing apparatus with pressurised air (HRN EN 135) and thermal insulation suit.

- Special hazards of exposure: None.

- Other information: No data available.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions: Evacuate unprotected persons from the contaminated area. Use personal protection equipment listed in Section 8.

- Environmental precautions: Thoroughly ventilate the premises at risk. Eliminate all sources of ignition and avoid sparking. Prevent scattering on the ground, in the sewerage, groundwater and drainage systems.

- Methods for cleaning-up and recovery: Remove residues from the ground with a shovel. Put the waste material and the removed contaminated surface soil layer into containers and seal them well. Store it in well ventilated area until disposal. Submit for disposal to legal persons in charge of hazardous waste disposal, authorised by the Ministry in charge of environmental protection.

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- **Additional warnings:** For larger spills, notify Emergency Service at the number 112.

7. HANDLING AND STORAGE

- Handling:

- safety precautions: Keep away from the sources of heat. Eliminate all sources of ignition. Ground the devices. Take precautionary measures against static electricity by grounding.

Load and unload the product only at the areas intended for the purpose into open or covered basins – silos and transport vehicles with open tops.

- safe handling advice: Do not smoke, eat, drink or store food in the room where this product is handled. Keep personal clothes separate from work clothes and workplace. Wear work clothes, protective gloves and goggles at high dust concentrations.

- **Storage:** technical measures and storage conditions:

- SUITABLE: Store only adequately cooled coke, making sure that penetration of air through coke layer is prevented.

- TO BE AVOIDED: Creation of dust.

- **Packaging materials:**

- RECOMMENDED: -

- NOT SUITABLE: -

- **Special use:** No data available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Exposure limit values

Hazardous substance	Exposure limit values (Croatia)	Biological limit values
carbon	3,5 mg/m ³	-

- **Monitoring procedures:** Monitoring of carbon concentration, according to regulations.

8.2. Exposure controls

- **Summary of risk management measures:** No data available.

8.2.1. Occupational exposure controls

- **Description of operating procedure and technological control:**

Make sure that the areas are well-ventilated.

- **Personal protective equipment**

- respiratory tract protection: Particulate filter mask for protection against particles (HRN EN 149).

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- hand protection: Protective gloves made of stable and impervious material such as nitrile rubber (HRN EN 374-1; HRN EN 374-2; HRN EN 374-3). In case of shorter contact time (4h) gloves made of PVA (polyvinyl alcohol) can be used.
- eye protection: Protective goggles (HRN EN 166) at high dust concentrations.
- skin and body protection: Protective clothing (HRN EN 340) and footwear (HRN ISO 10335).
- **Special hygienic and safety precautions:** Do not smoke, eat or drink when handling the product. Wash hands before breaks and at the end of work.

8.2.2. Environmental exposure controls

- **Summary of risk management measures:** No data available.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information:

- state: solid
- colour: black
- odour: odourless

9.2. Important health, safety and environmental information:

- pH value (indicate conc. and temp.): No data available.
- boiling point/boiling range: °C No data available.
- flash point: °C No data available.
- flammability (solid, gas): No data available.
- explosive properties: vol. % >30 g/cm³ (from literature)
- oxidizing properties: No data available.
- vapour pressure: Pa <0.01 (from literature)
- density at 15 °C: kg/m³ No data available.
- solubility (indicate solvent): g/L No solvents.
- Solubility in water: g/L insoluble
- partition coefficient n-octanol / water logPow No data available.
- viscosity (kinematic) at 100 °C: mm²/s No data available.
- vapour density at 15°C: kg/m³ No data available.
- volatility: No data available.

9.3. Other data:

- melting point/melting range: °C No data available.
- disintegration temperature: °C No data available.
- auto ignition temperature: °C 340-360 (from literature)
- conductivity: pS/m No data available.
- miscibility: No data available.

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10. STABILITY AND REACTIVITY

- **Stability:** Stable under recommended conditions of storage and use.
- **Conditions to avoid:** Very high temperatures (all sources of heat, flame, sparking).
- **Materials to avoid:** Strong oxidizing acids and other strong oxidants.
- **Hazardous decomposition products:** Carbon monoxide (CO), carbon dioxide (CO₂), sulphur dioxide (SO₂).
- **Special hazards:**

11. TOXICOLOGICAL INFORMATION

- **Acute toxicity**
 - oral (LD₅₀): No data available.
 - inhalation (LC₅₀): No data available.
 - dermal (LD₅₀): No data available.
- **Chronic exposure**
 - oral (LD₅₀): No data available.
 - inhalation (LC₅₀): No data available.
 - dermal (LD₅₀): No data available.
- **Irritation/Corrosion**
 - skin: May cause temporary irritation with redness and swellings.
 - eyes: May cause temporary irritation with redness.
 - respiratory tract: Dust may cause respiratory difficulties such as asthma and bronchitis, and mechanical damage to the lungs.
- **Sensitisation**
 - skin: No data available.
 - respiratory tract: No data available.
- **Other classic effects: (e.g. unconsciousness, particularly toxic metabolites, etc.):** High concentrations may cause cough, headache, dizziness and breathing difficulties.
- **Permanent effect due to acute or chronic exposure:** No data available.
- **Special effects**
 - mutagenicity: No data available.
 - carcinogenicity: No data available.
 - fertility decrease: No data available.
 - harmful effect on unborn child: No data available.
 - toxicity to reproduction: No data available.
 - other (e.g. endocrine disruptors): No data available.
- **Toxicokinetics:** No data available.

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- **Prohibitions and restrictions:** No data available.
- **Other:** No data available.

12. ECOLOGICAL INFORMATION

12.1. Eco-toxicity

- to aquatic organisms: No data available.
- to ground organisms: No data available.
- to plants and land animals: No data available.

12.2. Mobility

Method:

- known or predicted distribution to environmental compartments: No data available.
- surface tension: No data available.
- absorption/desorption: No data available.
- other physical and chemical properties: See Section 9

12.3. Persistence/degradability

- biotic degradation: No data available.
- other degradation processes: No data available.
- degradation in wastewater: No data available.

12.4. Bio-accumulation

- bio-concentration factor (BCF): No data available.

12.5. Results of PBT assessment

- data from chemical safety report:

Other data: No data available.

13. DISPOSAL CONSIDERATIONS

- Preferred disposal considerations:

- **Waste from residues:** There is no classic waste, except in case of unintentional spillage. For such cases see Section 6.
It is foreseen that contaminated residues be thermally processed.
- **Contaminated packaging:** Not applicable.
- **Local applicable regulations:** Waste Act, Decree on Waste Category, Types, Classification and Hazardous Waste List, Regulations on Waste Management Conditions, Decree on Hazardous Waste Management Conditions.

Obligatory compliance with the EU, national, and/or local laws and regulations. User shall be responsible for knowledge of all relevant national and local regulations.

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14. TRANSPORT INFORMATION

- Transport classification signs:

- Name of hazardous chemical according to international contracts on transport of hazardous substances:

Not applicable. Not classified as dangerous for transport

Road/Rail transport (ADR / RID):

UN number: - class: - risk label: - packaging group: -

Inland Waterway (ADNR):

UN number: - class: - risk label: - packaging group: -

Sea transport (IMDG):

UN number: - class: - risk label: - packaging group: -

Air transport (ICAO/IATA):

UN number: - class: - risk label: - packaging group: -

- Additional regulations: Hazardous Materials Transport Act, European Agreement on International Road Transport of Hazardous Materials (ADR – Appendixes A and B), Regulations on the Manner of Hazardous Materials Transport in Road Transport, Regulations on Handling Hazardous Materials, Conditions and Manner of Transport in Sea Transport, Loading and Unloading of Hazardous Materials, Bulk and Other Cargo in Harbours, and the Manner of Preventing Oil Spills in Harbours.

- Special precautions and transport conditions: Coke with temperature above 107°C must not be loaded into ship compartments.

15. REGULATORY INFORMATION

- Applicable EU regulations: EU Regulation No. 1906/2007 and No. 1272/2008 of the European Parliament and the Council; Commission Regulation (EU) No 453/2010 of 20 May 2010 (amending Regulation (EC) No 1907/2006 (REACH))
EU Regulation No. 2037/2000 of the European Parliament and of the Council of 29 June 2000 on substances that deplete the ozone layer;
EU Regulation No 689/2008 of the European Parliament and of the Council of 17 June 2008 concerning the export and import of dangerous chemicals;
EU Regulation No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants;
Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives

- Applicable national regulations: Chemicals Act; Regulations on Hazardous Chemicals Classification, Marking, Labelling and Packaging;
Regulations on Hazardous Substance Exposure Limit Values during Work and Biological Limit Values;
Regulations on Filling in the Material Safety Data Sheet

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- Chemical Safety Assessment carried out (CSA):	YES		NO	x
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- Authorization information: -

- Restriction information: -

16. OTHER INFORMATION

Revision indicators

Section: **Subject of change:**

Section 16. Change of data source.

APPENDIX: Sentence about ES added

Full text of R-, H- phrases, EUH- and P-phrases:

P 260 Do not breathe dust.

P273 Avoid release to the environment.

Abbreviations and acronyms:

CSA Chemical Safety Assessment

CSR Chemical Safety Report

PBT Persistent, bioaccumulative and toxic

vPvB Very persistent and very bioaccumulative

STOT Specific Target Organ Toxicity

STOT (RE) Specific Target Organ Toxicity (Repeated Exposure)

STOT (SE) Specific Target Organ Toxicity (Single Exposure)

UVCB Unknown or Variable composition Complex reaction product or Biological origin

LD₅₀ Lethal Dose, 50%

LC₅₀ Lethal Concentration, 50%

Statement:

This SDS is in compliance with the EU Regulation No. 1906/2007 and No. 1272/2008 of the European Parliament and the Council. It contains important user health and safety and environmental protection information. The information provided herein is not a substitute for any specification of quality and should not be deemed as a guarantee of the adequacy and applicability of this product for any purpose whatsoever. All information provided herein is based on our current knowledge and compliant with applicable legal regulations. The user is responsible for adherence to relevant legal regulations.

Data source:

1. <http://ecb.jrc.ec.europa.eu/esis/>
2. **Concawe Report 8/12**, Hazard classification and labelling of petroleum substances in the European Economic Area – 2012
3. <http://echa.europa.eu/>

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APPENDIX: EXPOSURE SCENARIOS ACCORDING TO CHEMICAL SAFETY REPORT

Substance is not classified as dangerous and chemical safety assessment (CSA) neither chemical safety report (CSR) nor exposure scenario (ES) are not required.