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

1.1. Product identifier

HIGH TEMPERATURE COAL TAR (Fp>61ºC)

(Coke tar, coal tar)

Liquid product of coal coking separated from raw coke oven gas by condensation, designed to further processing.
Substance of unknown or variable composition, (UVCB)
Isolated transported intermediate

EC Number: 266-024-0
CAS Number: 65996-89-6
Index Number: 648-082-00-2
Registration number: 01-2119511615-46-0052

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

This substance is handled under Strictly Controlled Conditions in accordance with REACH regulation Article 18(4) for transported isolated intermediates.
The substance is primarily used for processing by distillation and production of several aromatic chemicals. Other potential applications: reducing agent in metallurgy, wetting agent for coal charge in coke production, fuel for industrial energy production.
Uses advised against: liquid fuel.

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier:
Koksownia Częstochowa Nowa Sp. z o.o.
ul. Chłodna 51
00-867 Warszawa
Installation address and correspondence:
Koksownia Częstochowa Nowa Sp. z o.o.
ul. Odlewników 20
42-200 Częstochowa
tel. 0048 34 / 389-07-01
fax. 0048 34 / 389-07-99
REGON 141056327
e-mail: koksownia@koksownianowa.pl
www.koksownianowa.pl
http://kpkreach.pl

1.4. Emergency telephone

Information service: +48 662 137 739
Emergency office: 07:00 do 15:00 tel.: +48 34 389-07-61
piotr.bargiel@koksownianowa.pl

SECTION 2: HAZARDS IDNETIFICATION

2.1. Classification of the substance ~~or mixture~~

CLASSIFICATION ACCORDING TO REGULATION (EC) NO 1272/2008

Skin Sens. 1	H317
Muta. 1B	H340
Carc. 1A	H350
Repr. 1B	H360
Aquatic Chronic 3	H412

The Classification is based on the European Registration Dossier

2.2. Label elements

Pictograms defining kinds of danger according to Regulation (EC) No 1272/2008

GHS 07 GHS 08

Signal Word:
Danger

Hazard statement

H317	May cause an allergic skin reaction.
H340	May cause genetic defects.
H350	May cause cancer.
H360	May damage fertility or the unborn child.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

P260	Do not breathe mist.
P273	Avoid release to the environment.
P281	Use personal protective equipment as required.

Response

P363	Wash contaminated clothing before reuse.
P308+P313	IF exposed or concerned: Get medical advice/attention.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P391 Collect spillage.

Storage
P405 Store locked up.

Disposal
P501 Dispose of contents/container in accordance with local/regional/national/ international regulations.

2.3. Other hazards.

May exert carcinogenic influence, especially under elevated temperature and sun exposure.
May cause irritations, especially under raised temperature, of eyes, respiratory system, and also skin when under prolonged exposure.
This product is environmentally harmful. Air polluting vapours are dangerous. It is dangerous for underground waters and underground living organisms.
Recommended transport and storage temperature 30 – 55^{o}C.
PBT and vPvB assessment is not required for Isolated transported intermediate.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances

Coal tar is substance of unknown or variable composition**.** It is liquid product separated from raw coke oven gas by condensation. According to different sources coal tar consist some thousands chemical compounds, hydrocarbons mainly with aromatic character.

Dangerous components	CAS EINECS No	Content [%]	Regulation (EC) No 1272/2008	Pictogram, codes of signal words	Specific Concentrations Limits, M-factors
Napthalene	202-049-5 91-20-3	9.0-11.0	Carc. 2; H351 Acute Tox. 4; H302 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	GHS07 GHS08 GHS09 Warning	Carc.2, C ≥ 0.1% Acute Tox.4, C ≥ 1% Aquatic Acute 1, C ≥ 0.1% Aquatic Chronic 1, C ≥ 0.1%
Benzo(a)pyrene	200-028-5 50-32-8	0.1-0.5	Carc. 1B; H350 Muta. 1B; H340 Repr. 1B; H360-FD Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	GHS08 GHS07 GHS09 Danger	Carc.1B; C ≥ 0.01 % Muta.1B,C ≥ 0.1% Repr.1B, C ≥ 0.1% Aquatic Acute 1, C ≥ 0.1% Aquatic Chronic 1, C ≥ 0.1%
Benzo(a)anthracene	200-280-6	0.4-1.2	Carc. 1B; H350	GHS08 GHS09	Carc.1B; C ≥ 0.01 % Aquatic Acute 1, C ≥ 0.1%

	56-55-3		Aquatic Acute 1; H400 Aquatic Chronic 1; H410	Danger	Aquatic Chronic 1, C ≥ 0.1% M=100
Benzo(b+k)fluoranthene	205-911-9 205-99-2 205-916-6 207-08-9	0.5 - 1.4	Carc. 1B; H350 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	GHS08 GHS09 Danger	Carc.1B; C ≥ 0.01 % Aquatic Acute 1, C ≥ 0.1% Aquatic Chronic 1, C ≥ 0.1%
Dibenzo(a,h)anthracene	200-181-8 53-70-3	0.2-0.6	Carc. 1B; H350 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	GHS08 GHS09 Danger	Carc. 1B; C ≥ 0.01 % Aquatic Acute 1, C ≥ 0.1% Aquatic Chronic 1, C ≥ 0.1% M=100
Chryzene	205-923-4 218-01-9	0.2- 0.8	Carc. 1B; H350 Muta. 2; H341 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	GHS08 GHS09 Danger	Carc.1B; C ≥ 0.01 % Muta.2, C ≥ 1% Aquatic Acute 1, C ≥ 0.1% Aquatic Chronic 1, C ≥ 0.1%
Benzo(e)pyrene	205-892-7 192-97-2	0.2-0.5	Carc. 1B; H350 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	GHS08 GHS09 Danger	Carc.1B; C ≥ 0.01 % Aquatic Acute 1, C ≥ 0.1% Aquatic Chronic 1, C ≥ 0.1%
Benzene	200-753-7 71-43-2	0.2-0.4	Flam. Liq. 2; H225 Carc. 1A; H350 Muta. 1B; H340 STOT RE 1; H372 Asp. Tox. 1; H304 Eye Irrit. 2; H319 Skin Irrit. 2; H315	GHS02 GHS08 GHS07 Danger	Carc.1A; C ≥ 0.01 % Muta.1B, C ≥ 0.1% STOT RE1, C ≥ 1% Asp.Tox.1, C ≥ 1%
Phenol	203-632-7 108-95-2	0.2-0.3	Muta. 2; H341 Acute Tox. 3; H331 Acute Tox. 3; H311 Acute Tox. 3; H301 STOT RE 2; H373 Skin Corr. 1B; H314	GHS06 GHS08 GHS05 Danger	Skin Corr. 1B, C ≥ 3 % Skin Irrit. 2; 1% ≤ C<3% Eye Irrit.2, 1% ≤ C <3% STOT RE2, C ≥ 1% Acute.Tox.3, C ≥ 0.1%
Pyrene	204-927-3 129-00-0	1.2 – 2.0	Aquatic Chronic 1; H410 Substancja PBT i vPvB	GHS09 Warning	Aquatic Chronic 1, C ≥ 0.1%
Phenanthrene	201-581-5 85-01-8	1.5 – 5.0	Acute Tox. 4; H302 Aquatic Chronic 1; H410 Substancja vPvB	GHS09 GHS07 Warning	Acute.Tox.4, C ≥ 1% Aquatic Chronic 1, C ≥ 0.1%
Fluoranthene	205-912-4 206-44-0	1.5 – 3.0	Acute Tox. 4; H302	GHS09 GHS07 Warning	Acute.Tox.4, C ≥ 1% Aquatic Chronic 1, C ≥ 0.1%

			Aquatic Chronic 1; H410 Substancja PBT i vPvB		
Anthracene	204-371-1 120-12-7	0.5 – 1.5	Eye Irrit. 2; H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Substancja PBT	GHS09 Warning	Aquatic Acute 1, C ≥ 0.1% Aquatic Chronic 1, C ≥ 0.1%
Benzo(g,h,i)perylene	205-883-8 191-24-2	0.2 – 0.8	Eye Irrit. 2; H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Substancja PBT i vPvB	GHS09 Warning	Aquatic Acute 1, C ≥ 0.1% Aquatic Chronic 1, C ≥ 0.1%

*** Attention:** H statements are applied for 100% substance.
Full H statements are given in section 16 of SDS

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

4.1.1. First aid instructions by relevant routes of exposure.

Contact with eyes	Wash eyes with a lot of water immediately, 10 – 15 minutes minimum keep the eyelid wide open. Remove a contact lenses if used. Put aseptic dressing and contact with a doctor if necessary. Control examination of ophthalmologist is advisable.
Contact with skin	Remove dirt with linseed oil (or similar), then the place of contact wash immediately with warm soapy water, then rinse thoroughly under running water. Disinfect any abrasions or cuts. If irritation persists, contact your doctor.
Oral poisoning	Possibility of consumption by mistake unlikely. When swallowed in small amounts serve water or paraffin oil to wash out. Do not serve milk, do not induce vomiting. In special cases contact a doctor.
Inhalation	Remove inhaled person to fresh air. When discomfort prolongs, provide medical aid.

4.1.2. Additional information
Medical help should be called in case of coke oven tar extensive contact with the skin, especially when coal tar is at a temperature above 40oC. Contact of tar with skin is dangerous, because of its high viscosity, which hinders its removal in case of contamination. It is recommended to remove victim's soiled clothing and shoes. Risk of infection increases in case of skin cut. Due to the chemical composition of coal tar coke thermal burns may generate subsequent serious injury.

4.2. Most important symptoms and effects, both acute and delayed
The most common symptoms are: nausea, headache, weakness. In the case of the impact of a high concentration of vapors, possible irritation of respiratory tract.

4.3. Indication of any immediate medical attention and special treatment needed
None.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media
Suitable extinguishing media
In the case of fire use appropriate extinguishing media (agents): foam, CO_2 units, powder or spreading stream of water, dry extinguishing media (sand, earth).

Unsuitable extinguishing media
Avoid using solid stream of water.

5.2. Special hazards arising from the substance or mixture
Product is flammable at elevated temperatures and in contact with ignition source. The product burns with a smoking flame. Avoid inhalation of fumes resulting from combustion because toxic components may be formed.

5.3. Advice for firefighters
Use appropriate protective clothing, resistant to high temperatures, benzene and its homologues, as well as respiratory equipment. Cool endangered containers with water spray jet.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
If necessary, give preliminary assistance, if possible help in evacuation from danger zone, call the appropriate service to provide first help.

6.1.2. *For emergency responders*
All outside persons from danger zone must be removed. Persons without suitable protection are not allowed to the danger zone.
Use breathing protection against the effects of fumes/dust/aerosol.

Wear protective clothing (see chapter 8).

6.2. Environmental precautions

Do not allow product to reach sewage system or water bodies.
In case of product releasing to environment, suitable services should be informed.

6.3. Methods and material for containment and cleaning up

6.3.1. Prevention

In areas of potential release to the environment use bunds and/or trenches to prevent spreading of the spill.

6.3.2. Disposal

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders). Place after the spill fill up with absorptive material, protect from potential ignition sources. Ensure adequate ventilation.

6.3.3. Unsuitable methods

Never use a strong stream of water for removing (dispersion) of coal tar spill.

6.4. Reference to other sections

Dispose of contaminated material as waste according to item 13.
See Section 8 for information on personal protection equipment.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. General recommendations

Keep basic safety precautions during production, storage and transport, do not allow release of vapors, use airtight sealing in places of higher vapor emission Do not allow to heat above flash point (in closed crucible). Do not breathe vapors, protect skin and eyes. Change contaminated clothing immediately and wash separately. During pumping of large amounts of substance minimize linear velocity of the flow. Ground the installation. Do not use air for pumping. Don't use air for redrawing.

7.1.2. Occupational hygiene

Respiratory protection and extinguishing agents should be ready to use. Do not eat or smoke when handling the substance. Wash hands after contact with coal tar. Immediately remove contaminated protective clothing.

7.2. Conditions for safe storage, including any incompatibilities

Store in appropriate, adapted and marked (labeled) containers in accordance with fire and environmental protection regulations. Containers should be protected by using exhaust valve, fire-fighting safety device, lighting-conductor system, ground installation and spark safety protection, dry soil pipe and sprinkler and extinguishing systems. Container should be put on a protective tray. Do not store coal tar on the join protective tray, spaces with other flammable products. Store in long distance from high temperature sources.

7.3. Specific end use(s)

Coal tar is used primarily for processing by distillation. Other potential applications : raw material for carbon black production, reducing agent in metallurgy, wetting agent of coal charge in coke production.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Because marking of the harmfulness of coal tar does not exist, information about control of risk of for some chemical compounds contained in the product are given below.
According to Polish regulations

Component	**TLV – TWA [mg/m^3]**	**TLV – STEL [mg/m^3]**	**Remarks: Labeling the substance, the notation "skin" ***
Napthalene	20	50	Skin
Benzo(a)pyrene	0.002	-	-
Dibenzo(a,h)anthracene	0.004	-	-
PAH – as the sum of the products of concentrations and carcinogenicity factors of 9 carcinogenic PAHs **	0.002	-	Skin
Benzene	1.6	-	Skin
Phenole	7.8		Skin

** Labeling the substance by the notation "skin" means, that the absorption of the substance through the skin may be just as important as for inhalation exposure*
******* Value of the carcinogenicity coefficients (k) for: dibenzo[a,h]anthracene – 5, benzo[a]pyreeu – 1, benzo[a]anthracene – 0.1, benzo[b]fluoroantene – 0.1, benzo[k]fluoroantene – 0.1, indeno[1,2,3-c,d]pyrene – 0.1, anthracene – 0.01, benzo[g,h,i]perylene – 0.01 i chryzene – 0.01*

8.2. Exposure controls

Coal tar has been registered in accordance with Article 18 (4) of the REACH Regulation as a separate transported intermediate, which should be used in strictly controlled conditions. Chemical Safety Report and Exposure Scenarios are not required.
During contact with product (technological operations, transport) suitable protective measures should be taken for both minimizing the contact and assurance of required safety regulations. Depending on the results of measurements in the work environment, repeat or sharpen the conditions of airtight sealing.

8.2.1 Appropriate engineering controls

Control measures consist of completing the measurements of concentrations of the substances listed in Subsection 8.1. by accredited laboratories.

8.2.2. *Individual protection measures, such as personal protective equipment*

Respiratory protection	In case of intensified vapor exposure use gas filtration masks or breathing apparatus when needed.
Hand and skin	Use leather protective gloves according to suitable regulations. Gloves should be used only on clean hands. Use barrier cream for skin. Use suitable standard working clothes which should be often washed and changed. Use protective cream for skin.
Eye	Use protective glasses or face protection. Cool water should be available near the work stand.
Occupational hygiene	Consume meals and drinks only in designated areas. Smoking is permitted only in designated areas. Provide adequate ventilation in work in confined spaces.
Thermal hazard	As the temperature of storage and transportation of coal tar is about 50 – 60ºC, for carrying out technological operations, one must comply with the completeness of protective clothing, with regard on combined action of chemical and thermal components of coal tar.

8.2.3. Environmental exposure controls

In order to protect the environment from exposure to coal tar, containers should be airtight and sealed to ensure spill acquisition in case of leakage. Containers and trays undergo annual inspection in accordance with the requirements for building facilities.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	Dense liquid
Colour	Black
Odour	Characteristic smell of carbochemical products, napthalene mainly
Melting point/freezing point	Not determined due to the complex nature of the eutectic mixture
Boiling point or initial boiling point and boiling range	Begin of boiling c.a. 100°C, End of boiling c.a. 380°C
Flammability	At elevated temperatures, above the flash point, tar ignites on contact with an ignition source
Lower and upper explosion limit	Not determined, due to the UVCB character
Flash point	Varies with the content of flammable substances, typical range 65 - 80ºC.
Auto-ignition temperature	Above 560°C
Decomposition temperature	Not applicable (it dosn't thermally decompose)
pH	pH of the water extract approx. 7
Kinematic viscosity	W temp. 20ºC zakres 145 – 510 mm^2/s

	W temp. 70°C zakres 18 – 27 mm^2/s A variable parameter due to the complex nature of a polyutectic mixture, a non-Newtonian liquid
Solubility	Slightly soluble in water, good soluble in popular organic solvents. Toluenie insoluble matters content: 4 – 10% Quinoline insoluble matters content: 1 – 3%
Partition coefficient n-octanol/water (log value)	No data for the tar, for napthalene (main component) Log Pow 3,4 – 3,7
Vapour pressure	C.a. 81091 Pa in 20°C
Density and/or relative density	1100 – 1200 kg/m^3
Relative vapour density	Not specified due to the variable composition of the substance (UVCB)
Particle characteristics	Not applicable liquids

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Content of distillate to 180°C	Ca. 10 – 12%
Toluene insolube content	max. 13%
Ash content	max. 0.08%
Water content	max. 5%

9.2.2. Other safety characteristics

None.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Coal tar is not chemically reactive substance

10.2. Chemical stability

Coal tar is chemically stable substance

10.3. Possibility of hazardous reactions

No dangerous reaction known.

10.4. Conditions to avoid

Avoid contact with open flame, ignition sources, sparks, especially at elevated temperature.

10.5. Incompatible materials

Avoid contact with strong oxidant.

10.6. Hazardous decomposition products

No dangerous decomposition products known

SECTION 11: TOXICOLOGICAL INFORMATION

The irritating effect, after prolonged contact symptoms of poisoning occur. Difficulties in breathing, headache, nauseas and vomiting are possible.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
Severe irritation of respiratory tract and mucous membranes of eyes after consumption or inhalation as well as fatigue, sleepiness, dizziness and headache.
Data in accordance with registration dossier:

Acute toxicity:

	Coal tar, dose	Value	Unit
	LD50 – oral rat (OECD 423)	> 2000	mg/kg/d
Sensitization	NOAEL (90d) – oral mouse (OECD 408)	350	mg/kg/d
	Skin sens. - mouse (OECD 429)	LLNA positive	

Skin corrosion/irritation
At prolonged exposure of the skin, an irritation is possible.
In combination with UV-light, irritation of skin (phototoxic effects) may occur.

Serious eye damage/irritation
Irritation of the mucous membranes is possible.

Respiratory or skin sensitization
Sensitization of the skin is possible on repeated skin contact.

Germ cell mutagenicity
Coal tar is mutagenic product according to *Ames – salmonella* test.

Carcinogenicity
Coal tar show carcinogenic effect (category 1A)

	Test	Value	Unit
	LOEL (Carc.) – oral mouse (OECD 451	120	mg/kg/d
Coal tar	NOEL (Carc.)(dynamic) – oral mouse (OECD 451)	36	mg/kg/d
	Mutag. Oral bacteria (OECD 271)	positive	

Reproductive toxicity
The product can cause inheritable damage.

Aspiration hazard
Swallowing and penetration through respiratory tract may be dangerous.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties
See section 12.6.

11.2.2. Other nformations
None.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Substance is harmful for ground and surface water as well as soil and air (in elevated temperatures). Has damaging influence on water and soil organisms, as well as on plants and animals. Prevent product penetration into open water reservoirs, especially to sources of drinking water.
On the basis on ecotoxicological studies carried out for sample of coal tar (for sweet water) in Institute of Organic Industry, Department in Pszczyna (Certificate GLP) in July 2007, coal tar was classified as harmful substance for aquatic organisms, with hazard statement H 412 without pictogram GHS 09.
Results from investigation on representative sample of coal tar in Institute of Organic Industry, Departament in Pszczyna, July 2007.
Owner of results is JSW KOKS S.A.

Studies in open system

INVESTIGATION OF ACUTE TOXICITY

Compound	Method	Value	Unit
Coal tar	LC_{50} - fish (Oncorhynchus mykiss)	>100	mg/l (24h)
	LC_{50} - fish (Oncorhynchus mykiss)	>100	mg/l (48h)
	LC_{50} - fish (Oncorhynchus mykiss)	>100	mg/l (72h)
	LC_{50} - fish (Oncorhynchus mykiss)	>100	mg/l (96h)
	LC_{0} - fish (Oncorhynchus mykiss)	≥100	mg/l (24h)
	LC_{0} - ryby (Oncorhynchus mykiss)	≥100	mg/l (48h)
	LC_{0} - fish (Oncorhynchus mykiss)	≥100	mg/l (72h)
	LC_{0} - fish (Oncorhynchus mykiss)	≥100	mg/l (96h)
	LC_{100} - fish (Oncorhynchus mykiss)	>100	mg/l (24h)
	LC_{100} - fish (Oncorhynchus mykiss)	>100	mg/l (48h)
	LC_{100} - fish (Oncorhynchus mykiss)	>100	mg/l (72h)
	LC_{100} - fish (Oncorhynchus mykiss)	>100	mg/l (96h)
	EC_{50} - dalphnia (Daphnia magna)	>100	mg/l (24h)
	EC_{50} - dalphnia (Daphnia magna)	41.84	mg/l (48h)
	EC_{0} - dalphnia (Daphnia magna)	1.0	mg/l (24h)
	EC_{0} - dalphnia (Daphnia magna)	<1.0	mg/l (48h)
	EC_{100} - dalphnia (Daphnia magna)	>100	mg/l (24h)
	EC_{100} - dalphnia (Daphnia magna)	>100	mg/l (48h)

SLOW DOWN OF GROWTH INVESTIGATION (for coal tar)

Compound	Method	Value	Unit

Coal tar	E_rC_{50} – algae (Pseudokirchneriella subcapitata)	8.30	mg/l (24h)
	E_rC_{50} – algae (Pseudokirchneriella subcapitata)	21.49	mg/l (48h)
	E_rC_{50} – algae (Pseudokirchneriella subcapitata)	18.82	mg/l (72h)
	E_rC_{20} – algae (Pseudokirchneriella subcapitata)	2.44	mg/l (24h)
	E_rC_{20} – algae (Pseudokirchneriella subcapitata)	5.35	mg/l (48h)
	E_rC_{20} – algae (Pseudokirchneriella subcapitata)	5.72	mg/l (72h)
	E_rC_{10} – algae (Pseudokirchneriella subcapitata)	1.62	mg/l (24h)
	E_rC_{10} – algae (Pseudokirchneriella subcapitata)	3.37	mg/l (48h)
	E_rC_{10} – algae (Pseudokirchneriella subcapitata)	3.85	mg/l (72h)
	E_yC_{50} – algae (Pseudokirchneriella subcapitata)	6.44	mg/l (24h)
	E_yC_{50} – algae (Pseudokirchneriella subcapitata)	14.92	mg/l (48h)
	E_yC_{50} – algae (Pseudokirchneriella subcapitata)	18.87	mg/l (72h)
	E_yC_{20} – algae (Pseudokirchneriella subcapitata)	1.94	mg/l (24h)
	E_yC_{20} – algae (Pseudokirchneriella subcapitata)	3.94	mg/l (48h)
	E_yC_{20} – algae (Pseudokirchneriella subcapitata)	6.64	mg/l (72h)
	E_yC_{10} – algae (Pseudokirchneriella subcapitata)	1.30	mg/l (24h)
	E_yC_{10} – algae (Pseudokirchneriella subcapitata)	2.53	mg/l (48h)
	E_yC_{10} – algae (Pseudokirchneriella subcapitata)	4.69	mg/l (72h)

Results obtained from studies on representative sample of coal tar in closed system in July 2010 are given below.
Owner of results is Institute for Chemical Processing of Coal.

INVESTIGATION OF ACUTE TOXICITY

	Method	Value	Unit
Coal tar	EC_{50} – (Daphnia magna)	40.6	mg/l (24h)
	EC_{50} – (Daphnia magna)	24	mg/l (48h)
	EC_0 – (Daphnia magna)	18	mg/l (24h)
	EC_0 – (Daphnia magna)	10	mg/l (48h)
	EC_{100} – (Daphnia magna)	56	mg/l (24h)
	EC_{100} – (Daphnia magna)	56	mg/l (48h)

12.2. Persistence and degradability
No data available.

12.3. Bioaccumulative potential
No data available.

12.4. Mobility in soil
No data available.

12.5. Results of PBT and vPvB assessment
Assessment of PBT and vPvB was not carried out.

12.6. Endocrine disrupting properties
The coal tar contains ingredients on the candidate list to Annex XIV of the REACH Regulation, which show an endocrine disrupting effect. In coal tar - the UVCB substance - the action of its individual components is not additive. No confirmed data about the effect of tar on the endocrine system.

12.7. Other adverse effects
Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Proceeding with waste

Avoid releasing to environment according to chemical products processing standards. Act on legal regulations relating to protection of water and soil before pollution. Method of disposal should be coordinated with Department of Environmental Protection of Provincial Office. If possible polluted waste should be transferred to recycling. Waste disposal not allowed.

Method of used packaging removal

The coal tar is transported only in cisterns or road cisterns, so contaminated packaging is not present. Packaging in small unit packages is not allowed due to the need to maintain strictly controlled conditions and only industrial use of isolated transported intermediate.

SECTION 14: TRANSPORT INFORMATION

Product is not a harmful substance by means of transportation regulation, according to Agreement ADR/RID if is transported in temperature below *Flash point (closed crucible)*. Confirmation by certificate of authorized unit is required.

14.1. UN number or ID number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Not applicable.

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

Maritime Bulk Transport (IMO-IBC)

Listed in the "Report of the Maritime Environment Protection Committee ", Chapter 17
Shipping Name: Coal Tar

Maritime transport IMDG:

IMDG Class: 9
UN Number: 3082

Label 9
Packaging group: III
EMS Number: F-A,S-F
Marine pollutant: Symbol (fish and tree)
Correct technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Coal tar)

Air transport ICAO-TI and IATA-DGR:
ICAO/IATA Class: 9
UN/ID Number: 3082
Label 9
Special marking: Symbol (fish and tree)
Packaging group: III
Correct technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Coal tar)

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance ~~or mixture~~
National regulations.

15.2. Chemical safety assessment
Chemical Safety Report is not required for Isolated transported intermediate.

SECTION 16: OTHER INFORMATION

Safety data Sheet had been prepared according to COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)

SOURCE OF INFORMATION:

- Registration Dossier prepared by Lead Registrant (RÜTGERS Basic Aromatics GmbH);
- IUCLID Data Bank (European Commission – European Chemicals Bureau).

Full H statements

These H statements refer to section 2: "Dangerous Components".
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H340 May cause genetic defects.
H350 May cause cancer.

H351 Suspected of causing cancer.
H360 May damage fertility or the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Version No 4 of SDS
Changes made in SDS 15.11.2022 - Update resulting from the amendment of Annex II to the REACH Regulation, Commission Regulation (EU) 2020/878 of June 18, 2020.

This version of SDS replaces all previous version of it.

All of the above data are based on our knowledge. At the same time they do not guarantee any specific product evaluation and they cannot be used as the basis of any legally solid agreements. Above information is given for description of product from safety point of view.

Delivering data unit:
Institute of Energy and Fuel Processing Technology
ul. Zamkowa 1, 41-803 Zabrze
Contact: Tel. +48 32/ 271-00-41
Jolanta Telenga-Kopyczyńska Ph D.
Katarzyna Rychlewska Ph D.