



Vacuum residuum DC feed

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Date of issue: 04.04.2006

Revision date: 30.04.2014

Version: 8.0

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Chemical type : Substance
Name : Vacuum residuum DC feed
Trade name : Vacuum residuum DC feed
EC no : 265-076-1
CAS No : 64741-75-9
REACH registration No. : 01-2119489964-16
Local code : L13350
IUPAC : Residues (petroleum), hydrocracked
Chemical name : Residues (petroleum), hydrocracked
Synonyms : Vacuum residum DC feed

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use, Consumer use
Industrial/Professional use spec : Distribution of substance
Formulation & (re)packing of substances and mixtures
Lubricants
Manufacture of substance
Rubber production and processing
Use as a fuel
Use in Oil and Gas field drilling and production operations
Road and construction applications
Use as an intermediate
Uses in Coatings
Function or use category : Construction materials additives, Fuels, Impregnation agents, Intermediates, Lubricants and additives

1.2.2. Uses advised against

No relevant data available

1.3. Details of the supplier of the safety data sheet

SLOVNAFT, a.s.
Vlčie hrdlo 1
824 12 Bratislava - Slovakia
T +421-(0)2/4055-1111 - F +421-(0)2/5859-9759
slovnaftreach@slovnaft.sk - www.slovnaft.sk

1.4. Emergency telephone number

Emergency number : Podnikový dispečing 1: ++0421(0)2/4055 3344
Podnikový dispečing 2: ++0421(0)2/4055 2244
fax: ++0421(0)2/4055 8047
E-mail: podnikovydispecing1@slovnaft.sk, podnikovydispecing2@slovnaft.sk

Country	Organisation/Company	Address	Emergency number
HUNGARY	Országos Kémiai Biztonsági Intézet (National Institute of Chemical Safety) Egészségügyi Toxikológiai Tájékoztató Szolgálat (Health Toxicological Information Service)	1437 Budapest PO Box 839 1097 Budapest, Nagyváradi tér 2	+36-80-20-11-99
SLOVAKIA	Toxikologické informačné centrum FN s poliklinikou University Hospital Bratislava	Limbová 5 833 05 Bratislava	+421 2 54 77 4 166
UNITED KINGDOM	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA Belfast	0870 600 6266 (UK only)
UNITED KINGDOM	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0870 600 6266 (UK only)
UNITED KINGDOM	National Poisons Information Service (Cardiff Centre) Gwenwynn Ward, Llandough Hospital	Penarth CF64 2XX Cardiff	0870 600 6266 (UK only)
UNITED KINGDOM	NPIS Edinburgh (Scottish Poisons Information Bureau) Royal Infirmary of Edinburgh	51 Little France Crescent EH16 4SA Edinburgh	0870 600 6266 (UK only)
UNITED KINGDOM	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	0870 243 2241
UNITED KINGDOM	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0870 600 6266 (UK only)

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2. Hazards identification

2.1. Classification of the substance or mixture

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

Acute Tox. 4 (Inhalation)	H332
Carc. 1B	H350
Repr. 2	H361
STOT RE 2	H373
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Full text of H-phrases: see section 16

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

Carc.Cat.2; R45
Repr.Cat.3; R63
Xn; R20
Xn; R48/21
R66
N; R51/53

Full text of R-phrases: see section 16

2.1.3. Adverse physicochemical, human health and environmental effects

No relevant data available

2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazard statements (CLP)

: H332 - Harmful if inhaled
H350 - May cause cancer
H361 - Suspected of damaging fertility or the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (CLP)

: P201 - Obtain special instructions before use
P260 - Do not breathe dust/fume/gas/mist/vapours/spray
P273 - Avoid release to the environment
P308+P313 - IF exposed or concerned: Get medical advice/attention
P281 - Use personal protective equipment as required

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

No labelling applicable

2.3. Other hazards

No relevant data available

3. Composition/information on ingredients

3.1. Substances

Name	Product identifier		% (w/w) Concentration (range)	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
	CAS No	EC no			
SN/265-076-1 /Residues (petroleum), hydrocracked, - Vacuum residuum (DC feed)	64741-75-9	265-076-1	100	Carc.Cat.2; R45 Repr.Cat.3; R63 Xn; R20 Xn; R48/21 R66 N; R51/53	Acute Tox. 4 (Inhalation:gas), H332 Carc. 1B, H350 Repr. 2, H361 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
aromatic hydrocarbons			39,3		
polar hydrocarbons			28		
saturated hydrocarbons			19,3		
asphaltenes			13,4		

Full text of R-, H- and EUH-phrases: see section 16

3.2. Mixture

Not applicable

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according to Regulation (EC) No. 1907/2006 (REACH)

4. First aid measures

4.1. Description of first aid measures

- First-aid measures general : Hydrogen sulphide (H₂S) can accumulate in the headspace of product storage tanks and reach potentially hazardous concentrations.
Contact with hot product may cause severe thermal burns.
Aspiration : not applicable due to the physical state of oxidized bitumen.
- First-aid measures after inhalation : Inhalation of fumes or oil mists produced at high temperatures may cause irritation of the respiratory tract
Remove casualty to a quiet and well ventilated place if safe to do so
If casualty is unconscious and:
Not breathing
Ensure that there is no obstruction to breathing and give artificial respiration by trained personnel.
If necessary, give external cardiac massage and obtain medical advice.
Breathing
Place in the recovery position.
Administer oxygen if necessary.
Obtain medical assistance if breathing remains difficult.
If there is any suspicion of inhalation of H₂S (hydrogen sulphide).
Rescuers must wear breathing apparatus, belt and safety rope, and follow rescue procedures.
Remove casualty to fresh air as quickly as possible.
Immediately begin artificial respiration if breathing has ceased.
Provision of oxygen may help.
Obtain medical advice for further treatment.
- First-aid measures after skin contact : For minor thermal burns, cool the burn
Hold the burned area under cold running water for at least five minutes, or until the pain subsides.
Body hypothermia must be avoided.
Do not put ice on the burn.
Remove non-sticking garments carefully.
DO NOT attempt to remove portions of clothing glued to burnt skin but cut round them
Seek medical attention in all cases of serious burns.
In the event of accidental skin contact with hot product, the injured part should be immediately plunged under cold running water for at least 10 minutes.
No attempt must be made to remove the bitumen adherent to the skin at the worksite.
In the case of a circumferential burn with adhesion of the bitumen, the adhering material should be split to prevent a tourniquet effect as it cools.
Send patient for specialist care.
- First-aid measures after eye contact : If hot product is splashed into the eye, it should be cooled down immediately to dissipate heat, under cold running water.
Immediately obtain specialist medical assessment and treatment for the casualty.
In the event of eye contact with cold product, rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do so
Continue rinsing
If irritation, blurred vision or swelling occurs and persists, obtain medical advice from a specialist.
- First-aid measures after ingestion : Do not induce vomiting.
Ask for medical advice.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : irritation of the respiratory tract due to excess fume, mists or vapour exposure.
- Symptoms/injuries after skin contact : Contact with hot/molten product will cause severe burns.
- Symptoms/injuries after eye contact : minimal redness and irritation.
Contact with hot/molten product will cause severe burns.
- Symptoms/injuries after ingestion : few or no symptoms expected.
If any, nausea and diarrhoea might occur.

4.3. Indication of any immediate medical attention and special treatment needed

Never use gasoline, kerosene or other solvents for washing of contaminated skin.

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5. Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam (trained personnel only). Water fog (trained personnel only). Dry chemical powder. Carbon dioxide. Other inert gases (subject to regulations). Sand or earth.
- Unsuitable extinguishing media : Do not use direct water jets on the burning product, they could cause splattering and spread the fire. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

5.2. Special hazards arising from the substance or mixture

- Reactivity : Contact of hot product with water will result in a violent expansion as the water turns to steam. This may cause splashing of hot product, or damage to, or complete loss of the tank roof.

5.3. Advice for firefighters

- Protection during firefighting : In case of a large fire or in confined or poorly ventilated spaces, wear full fire resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Other information : Respiratory problems or nausea by excessive exposure to hot product fumes. Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide. H₂S, SO_x (sulfur oxides) or sulfuric acid. unidentified organic and inorganic compounds.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : Small spillages: normal antistatic working clothes are usually adequate.
Large spillages: full body suit of chemically resistant and thermal resistant material should be used.
Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons.
gloves made of PVA are not water-resistant, and are not suitable for emergency use
If contact with hot product is possible or anticipated, gloves should be heat-resistant and thermally insulated
Work helmet with neck cloth
Antistatic non-skid safety shoes or boots
if necessary heat-resistant.
Goggles and /or face shield, if splashes or contact with eyes is possible or anticipated.
Respiratory protection:
a half or full-face respirator with filter(s) for organic vapours/H₂S, or a Self-contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.
- Emergency procedures : Stop or contain leak at the source, if safe to do so
Avoid direct contact with released material
Stay upwind
In case of large spillages, alert occupants in downwind areas.
Keep non-involved personnel away from the area of spillage. Alert emergency personnel
Except in case of small spillages,
The feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency.
Eliminate all ignition sources if safe to do so (e.g. electricity, sparks, fires, flares
When the presence of dangerous amounts of H₂S around the spilled product is suspected or proved, additional or special actions may be warranted, including access restrictions, use of special protection equipment, procedures and personnel training.
Large spillages may be cautiously covered with foam, if available, to limit vapour cloud formation.
When inside buildings or confined spaces, ensure adequate ventilation
Let hot product cool down naturally
If necessary, cautiously use water fog to help the cooling.
Do not play direct jets of foam or water on the spilled molten product, as this may cause splattering
If required, notify relevant authorities according to all applicable regulations.

6.1.2. For emergency responders

- Emergency procedures : Leaks and spillages will consist of molten hot material with risk of severe burns.

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6.2. Environmental precautions

prevent product from entering sewers, rivers or other bodies of water.

solidified product may clog drains and sewers.

Collect free product with suitable mechanical means.

Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.

In case of spillage in the water,

the product will cool down rapidly and become solid.

The solid product is denser than water and will slowly sink to the bottom, and usually no intervention will be feasible.

If possible, contain the product

Transfer recovered product and other materials to suitable tanks or containers and store/dispose according to relevant regulations.

6.3. Methods and material for containment and cleaning up

For containment : recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions

For this reason, local experts should be consulted when necessary.

Local regulations may also prescribe or limit actions to be taken

Concentration of H₂S in tank headspaces may reach hazardous values, especially in case of prolonged storage.

This situation is especially relevant for those operations which involve direct exposure to the vapours in the tank.

Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations.

As H₂S has a density greater than ambient air, a possible exception may regard the build-up of dangerous concentrations in specific spots, like trenches, depressions or confined spaces

In all these circumstances, however, the correct actions should be assessed on a case-by-case basis.

6.4. Reference to other sections

No relevant data available

7. Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure that all relevant regulations regarding handling and storage facilities of flammable products are followed. A specific assessment of inhalation risks from the presence of H₂S in tank headspaces, confined spaces, product residue, tank waste and waste water, and unintentional releases must be made to help determine controls appropriate to local circumstances. Avoid contact with the hot product. Avoid contact of hot bitumen products with water. Risk of splashing of hot material. Ground/bond containers, tanks and transfer/receiving equipment. Do not breathe fumes from hot product. Use adequate personal protective equipment as required. For more information regarding protective equipment and operational conditions see Exposure scenarios. Ensure that proper housekeeping measures are in place. Contaminated materials should not be allowed to accumulate in the workplaces and should never be kept inside the pockets. Keep away from food and beverages. Do not eat, drink or smoke when using this product. Wash the hands thoroughly after handling. Do not use solvents or other products with a defatting effect on the skin.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Before entering storage tanks and commencing any operation in a confined area, check the atmosphere for oxygen content, hydrogen sulphide (H₂S) and flammability. Use adequate personal protective equipment as required. Empty containers may contain flammable product residues. Do not weld, solder, drill, cut or incinerate empty containers, unless they have been properly cleaned. Hot product must never be filled into containers without first checking that the container is completely dry.

Storage conditions : Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations.

Storage area : Storage area layout, tank design, equipment and operating procedures must comply with the relevant European, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Deposits (carbonaceous materials and iron sulphides) can develop on the internal walls and roofs of tanks in case of long term storage. These deposits may be pyrophoric and self-ignite in contact with the air. Store separately from oxidising agents.

Special rules on packaging : If the product is supplied in containers: Keep only in the original container or in a suitable container for this kind of product.

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Packaging materials : Self-heating leading to auto ignition at the surfaces of porous or fibrous materials impregnated with oils or bitumen, can occur at temperatures as low as 100°C. Oil and bitumen contamination of thermal insulation materials and the accumulation of oily rags or similar material near hot surfaces, should therefore be avoided, and lagging should be replaced where necessary by a non-absorbent type of insulation. Recommended materials: For containers, or container linings use materials specifically approved for use with this product. Most synthetic materials are unsuitable for containers or container linings, due to low heat resistance.

7.3. Specific end use(s)

This substance is handled under Strictly Controlled Conditions in accordance with REACH regulation Article 17(3) for on-site isolated intermediates, in case the substance is transported to other sites for further processing, the substance should be handled at these sites under the Strictly Controlled Conditions as specified in REACH regulation Article 18(4). Site documentation to support safe handling arrangements including the selection of engineering, administrative and personal protective equipment controls in accordance with risk-based management systems is available at each manufacturing site. Written confirmation of application of Strictly Controlled Conditions has been received from every affected Distributor and Downstream Processor/User of the Registrant's intermediate.

8. Exposure controls/personal protection

8.1. Control parameters

Vacuum residuum (DC feed) (64741-75-9)		
EU	IOELV TWA (mg/m ³)	0,002 mg/m ³ benzo(a)pyrene
EU	IOELV STEL (mg/m ³)	0,01 mg/m ³ benzo(a)pyrene

Vacuum residuum DC feed (64741-75-9)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	4700 mg/m ³ acute inhalation systemic
Long-term - local effects, dermal	≥ 0,0658 mg/kg/8h
Long-term - systemic effects, inhalation	≥ 0,12 mg/m ³ mg/m ³ /8h [aerosol]

DNEL : ≤ 0,015 mg/m³ mg/kg/24h general population

PNEC : 66,7 mg/m³ PNEC for predators oral mg/kg/food,

8.2. Exposure controls

Appropriate engineering controls : Hydrogen sulphide may accumulate in the head space of storage tanks containing bitumen and can reach potentially hazardous concentrations. Monitoring procedures should be chosen according to the indications set by national authorities or labour contracts. In absence of such indications, direct exposure to bitumen fumes can be assessed with a number of methods. Any comparison should be made only between data obtained with the same procedure. Dermal exposure can be assessed by the dermal patch method. Storage and handling temperatures should be kept as low as feasible to minimize fume production. Minimise exposure to fumes. Where hot product is handled in confined spaces, effective local ventilation must be provided. Do not enter empty storage tanks until measurements of available oxygen have been carried out.

Personal protective equipment : Use of personal protective equipment must be consistent with good occupational hygiene practices. Protective goggles. Gas mask with filter type A. Gloves. Protective clothing.



Hand protection : Heat resistant gloves with long cuffs, or gauntlets. Gloves must be periodically inspected and changed in case of wear, perforations or contaminations.

Eye protection : If splashing is likely, full head and face protection (protective shield and/or safety goggles) should be used.

Skin and body protection : Wear protective clothing for operations with hot material: heat resistant coveralls (with trousers legs over boots and sleeves over cuffs of gloves), heat resistant heavy duty antiskid boots (e. g. leather). Coveralls should be changed at the end of the work shift and cleaned as necessary to avoid transfer of product to clothes or underwear. For loading/unloading operations: wear safety helmet with integrated full face visor and neck protection.

Respiratory protection : Heated bitumen will give off fumes. Although these are unlikely to present a significant health hazard, to avoid respiratory tract irritation inhalation exposure should be kept to a minimum, by observing good work practice and ensuring good ventilation around work areas. Asphalt [bitumen] fume. Hydrogen sulphide. For this material there are occupational exposure limits set by: National Authorities of EU-member countries. National Authorities of other countries (non EU members). Competent Professional Bodies (i.e. American Conference of Industrial Hygienists, ACGIH). These values are recommended but not legally binding by themselves, unless adopted in a national legislation or labor contracts. recommended values for occupational exposure limits are not meant to replace any value set by official regulations or labour contracts. Approved respiratory protection equipment shall be used in spaces where hydrogen sulphide may accumulate: full face mask with cartridge/filter type "B" (grey for inorganic vapours including H₂S) or self-contained breathing apparatus (SCBA). If exposure levels cannot be determined or estimated with adequate confidence, or an oxygen deficiency is possible, only SCBA's should be used.

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Thermal hazard protection	: Material handled at elevated temperature may cause thermal burns by contact with molten product.
Environmental exposure controls	: Store finished products in closed containers (e.g., bulk tanks, drums, cans); Store all VOC-containing wastes in closed, secure containers (e.g., bulk tanks, intermediate bulk containers, drums). Incinerate, absorb, or adsorb vapours stripped from solution whenever necessary. Use vapour recovery units when necessary. Carefully handle the substance to minimise releases.
Consumer exposure controls	: urinary biomarkers of exposure to PAHs may provide an indication of exposure to bitumen. Related limit values (air contaminants): none. Substance registered as Isolated intermediate under SCC). This substance is handled under Strictly Controlled Conditions in accordance with REACH regulation Article 17(3) for on-site isolated intermediates. In case the substance is transported to other sites for further processing, the substance should be handled at these sites under the Strictly Controlled Conditions as specified in REACH regulation Article 18(4). Site documentation to support safe handling arrangements including the selection of engineering, administrative and personal protective equipment controls in accordance with risk-based management systems is available at each manufacturing site. Written confirmation of application of Strictly Controlled Conditions has been received from every affected Distributor and Downstream Processor/User of the Registrant's intermediate.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Black.
Odour	: characteristic odour.
Melting point	: 30 - 128 °C
Boiling point	: > 500 °C
Flash point	: > 180 (302 - 310) °C
Vapour pressure	: << 0,1 kPa at 20 °C
Relative vapour density at 20 °C	: 1009 - 1010 kg/m ³ at 20°C
Self ignition temperature	: > 400 °C
Viscosity	: 250 - 450 m ² /s at 100°C

9.2. Other information

The above data are informative, accurate physical-chemical data of the product are specified on the product certificate.

10. Stability and reactivity

10.1. Reactivity

Contact of hot product with water will result in a violent expansion as the water turns to steam. This may cause splashing of hot product, or damage to, or complete loss of the tank roof.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Contact with strong oxidizers (peroxides, chromates, etc.) may cause a fire hazard.

10.4. Conditions to avoid

They may be ignited by heat, sparks, static electricity or flames.

10.5. Incompatible materials

A mixture with nitrates or other strong oxidisers (e.g. chlorates, perchlorates, liquid oxygen) may create an explosive mass.

10.6. Hazardous decomposition products

No decomposition if stored normally.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if inhaled.

Vacuum residuum DC feed (64741-75-9)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 3600 mg/m ³
ATE (gases)	4500,000 ppmV/4h

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation:	: Not classified
Germ cell mutagenicity	: Not classified

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Carcinogenicity	: May cause cancer.
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified

12. Ecological information

12.1. Toxicity

Vacuum residuum DC feed (64741-75-9)	
LC50 fishes 1	> 1000 mg/l QSAR
EC50 Daphnia 1	> 1000 mg/l QSAR
EC50 other aquatic organisms 1	> 1000 mg/l QSAR
LC50 fish 2	> 1000 mg/l QSAR
EC50 Daphnia 2	>= 1000 mg/l QSAR

12.2. Persistence and degradability

Vacuum residuum DC feed (64741-75-9)	
Persistence and degradability	Not easily bio-degradable (according to OECD-criteria).

12.3. Bioaccumulative potential

No relevant data available

12.4. Mobility in soil

No relevant data available

12.5. Results of PBT and vPvB assessment

Vacuum residuum DC feed (64741-75-9)	
Results of PBT assessment	Anthracene is not present in this substance at greater than 0,1%. No other representative hydrocarbons structures were found to meet the PBT / vPvB criteria.

12.6. Other adverse effects

No relevant data available

13. Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives. Disposal must be done according to official regulations.
Waste treatment methods	: Contain and dispose of waste according to local regulations. External recovery and recycling of waste should comply with applicable local and/or national regulations. External treatment and disposal of waste should comply with applicable local and/or national regulations. Where possible (e.g. in the absence of relevant contamination), recycling of used substance is feasible and recommended.
Sewage disposal recommendations	: Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. Do not empty into drains; dispose of this material and its container in a safe way.
Waste disposal recommendations	: Clear up spills immediately and dispose of waste safely.
Additional information	: (*) Hazardous waste according to Directive 91/689/EEC. European Waste Catalogue code(s) (Decision 2001/118/CE): The final user has the responsibility for the attribution of the most suitable code, according to the actual use(s) of the material, contaminations or alterations.

14. Transport information

14.1 Overland transport (ADR)

UN-No. (ADR)	: 3082
Proper Shipping Name (ADR)	: Residues (petroleum), hydrocracked (ELEVATED TEMPERATURE LIQUID, N.O.S.)
Class (ADR):	: 9 - Miscellaneous dangerous substances and articles
Packing group (ADR)	: III
Danger labels (ADR)	: 9 - Miscellaneous dangerous substances and articles



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Hazard identification number (Kemler No.) : 90
Classification code (ADR) : M6
Tunnel restriction code (ADR) : E
Orange plates :

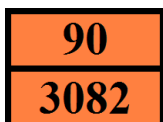


14.2 Overland transport (RID)

UN-No : 3082
Proper Shipping Name (RID) : Residues (petroleum), hydrocracked (ELEVATED TEMPERATURE LIQUID, N.O.S.)
Class (RID) : 9 - Miscellaneous dangerous substances and articles
Classification code (RID) : M6
Danger labels (RID) : 9



Packing group (RID) : III
Orange plates :



14.3 Inland waterway transport (ADN)

UN-No : 3082
Proper Shipping Name (AND) : Residues (petroleum), hydrocracked (ELEVATED TEMPERATURE LIQUID, N.O.S.)
Class (ADN) : 9 - Miscellaneous dangerous substances and articles
Classification code (ADN) : M6
Packing group (ADN) : III
Danger labels (ADN) : 9



14.4 Transport by sea (IMDG)

UN-No : 3082
Proper Shipping Name (MOG) : Residues (petroleum), hydrocracked (ELEVATED TEMPERATURE LIQUID, N.O.S.)
Class (IMDG) : 9 - Miscellaneous dangerous substances and articles
Packing group (IMDG) : III



14.5 Air transport (ICAO-TI / IATA-DGR)

UN-No. (ICAO) : 3082
Class (ICAO) : 9 - Miscellaneous dangerous substances and articles

14.6 Special precautions for user

Other information : No supplementary information available.

15. Regulatory information

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

15.1.1. EU-Regulations

No relevant data available

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15.1.2. National regulations

Regional legislation : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP), REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

15.2. Chemical safety assessment

No relevant data available

16. Other information

SDS changed items : Re-registration of substances - change EC number, CAS number and the REACH registry No
Up date of the UN code

Data sources : CONCAWE registration dossier.

Training advice : Before handling, storing or using the present substance for the first time, employees must be informed.

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

Acute Tox. 4 (Inhalation)	Acute toxicity (Inhalation) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Carc. 1B	Carcinogenicity, Category 1B
Repr. 2	Reproductive toxicity, Category 2
STOT RE 2	Specific target organ toxicity — repeated exposure Category 2
H332	Harmful if inhaled
H350	May cause cancer
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
R20	Harmful by inhalation.
R45	May cause cancer.
R48/21	Harmful: danger of serious damage to health by prolonged exposure in contact with skin.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R63	Possible risk of harm to the unborn child.
R66	Repeated exposure may cause skin dryness or cracking.
N	Dangerous for the environment
Xn	Harmful

Precautionary statements (CLP):

P201	Obtain special instructions before use
P260	Do not breathe dust/fume/gas/mist/vapours/spray
P273	Avoid release to the environment
P308+P313	IF exposed or concerned: Get medical advice/attention
P281	Use personal protective equipment as required

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product