
Product	ATMOSPHERIC DISTILLATION RESIDUE	Date:	2011/03/24
		Edition:	2

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

1.1. Product identifier

- Trade name: ATMOSPHERIC DISTILLATION RESIDUE
- Chemical name: Residues (petroleum), atmospheric
- EC index no.: 649-019-00-1
- EC no.: 269-777-3
- CAS no.: 68333-22-2
- Registration No.: 01-2119485969-10-0035
- Product code: 1000080

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

- Relevant identified uses: Blending component.
- 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 Holjevcica 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:** **Organisational Design and Process Management Sector**
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 00-385-1-3650-011
Nehajska 5, 10000 Zagreb 00-385-1-3650-084
e-mail: info@duzs.hr 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):

Carc. 1B; H350

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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

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:



GHS08

Signal word: Danger

Hazard statements (H): H350 May cause cancer (inhalation, oral).

Precautionary statements (P):

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P281	Use personal protective equipment as required.
P308+ P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with national regulations

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

Hazard symbols:



T - Toxic

R-phrases: R45 May cause cancer.

S-phrases: S53 Avoid exposure - obtain special instructions before use.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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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)				
Residues (petroleum), atmospheric	68333-22-2	269-777-3	01-2119485969-10-0035	100	Carc. Cat. 2; R45	Carc. 1B, H350	

4. FIRST AID MEASURES

- General information:

- First aid procedures

- after inhalation: Afflicted person shall be brought to fresh air and placed in a half-lying position. In case of fainting, person shall be transported to hospital, lying on the side, paying attention to free upper respiratory tract. If the person is breathing with difficulty or not at all, administer CPR and immediately seek medical assistance.
- after skin contact: Take the soaked clothing and footwear off, rinse thoroughly the places of contact with water and soap for at least 15-20 minutes. Should there appear redness, seek medical assistance.
- after eye contact: Open the lids apart with clean hands and rinse with running water for at least 15-20 minutes. In case of major redness, burning sensation, or tears, seek oculist's assistance.
- after ingestion: Do NOT induce vomiting! Flush the mouth with water and spit out. Place the afflicted person into half-lying position and transport to hospital.

- Note to person administering first aid/ physician: No specific recommendations.

5. FIRE FIGHTING MEASURES

- Extinguishing media:

- SUITABLE: Heavy air-foam (alcohol-based foaming agent) for major fires.
Dry powder and CO₂ for minor fires.
- NOT SUITABLE: Water jet.

- Fire fighting measures for special hazards: Remove all ignition sources. Call firemen and police. Particularly take into account that there is a risk of creating an explosive mixture with air at temperatures exceeding the flash point temperature of 110°C.

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- **Special fire fighting measures:** Use of water mist and spray for cooling the surfaces exposed to heat and for protection of persons. Only those trained in fire-fighting/fire protection may use water spray (dispersed water).
- **Special fire fighter equipment:** Self-contained open circuit compressed air breathing apparatus (HRN EN 137).
- **Special hazards of exposure:** Vapours, as heavier than air, remain close to the ground and in recesses; they may spread further from the place of accident, causing explosion and fire.
- **Other information:** No data.

6. ACCIDENTAL RELEASE MEASURES

- **Personal precautions:** Display a visible sign prohibiting entrance, use of open flame and sparking devices. Eliminate all sources of ignition. Measure the concentration of fumes in the air, in compliance with regulations. Stand upwind of the spill site.
- **Environmental precautions:** Prevent discharge into watercourses and drainage systems by setting up sand dams and partitions. Prevent the discharge of water remaining from the extinguishing into surface waters/groundwater. Notify the Emergency Service at the number 112.
- **Methods for cleaning-up and recovery:** Pump the product from the damaged tank into an empty tank - container with the pump designed for use in a potentially explosive atmosphere. Absorb the remainders with absorbents (sand or other inert material). Store the waste material and contaminated surface layer of soil that was removed in tightly closed containers in well-ventilated premises until disposal. Hand over for disposal to legal entities for hazardous waste disposal, authorised by the Ministry in charge of environmental protection.
- **Additional warnings:** Prevent release into the soil, waterways and air!

7. HANDLING AND STORAGE

- **Handling:**
- **safety precautions:** Reload at the places designed for the purpose, ensuring ventilation/air outlet. Use fully functioning equipment and devices. Take precautionary measures against static electricity by grounding. Keep away from sources of heat and eliminate all sources of ignition. Do not use sparking tools.
- **safe handling advice:** Do not smoke, eat, drink or store food in a room where this product is handled. Keep personal clothes separate from work clothes and workplace. Wear work clothes, protective gloves and goggles.

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- Storage: technical measures and storage conditions:

- **SUITABLE:** Store in tightly closed containers, properly built and equipped. Take preventive measures against electrostatic charge. Make sure that receiving tank farms are below self-supporting tanks. Ensure good ventilation of the area.
- **TO BE AVOIDED:** Avoid storing with other chemicals, especially flammable ones. Do not use tools or devices that produce a spark or a flame. Avoid welding or any other sparking operation.

- Packaging materials:

- **RECOMMENDED:** Original manufacturer's containers, properly labelled and closed, stored in a well-vented room/area.
- **NOT SUITABLE:** Any other.

- Special use: None

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Exposure limit values

Hazardous substance	Exposure limit values (Croatia) ppm	Biological limit values
No data	-	-

- **Monitoring procedures:** No data available.

8.2. Exposure controls

- **Summary of risk management measures:** Make sure work areas are well-ventilated.

8.2.1. Occupational exposure controls

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

No data available.

- **Personal protective equipment**

- respiratory tract protection: In the presence of steam used self-contained open circuit compressed air breathing apparatus (HRN EN 137).
- hand protection: Wear gloves resistant to organic solvents: PVA (polyvinyl alcohol) Teflon, Viton. DO NOT use rubber gloves!
- eye protection: Protective goggles or a visor at lower concentrations, protective mask at higher concentrations.
- skin and body protection: Protective suit.

- **Special hygienic and safety precautions:**

Maintain the prescribed hygiene standards for working with hazardous substances. Remove contaminated clothing and footwear. Do not smoke, eat, and 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.

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9 PHYSICAL AND CHEMICAL PROPERTIES**9.1. General information:**

- state: Liquid
- colour: Brown-black
- odour: Characteristic for hydrocarbons

9.2. Important health, safety and environmental information:

- pH value (indicate conc. and temp.): No data available.
- Boiling point/Boiling range: °C 150-600 (from literature)
- Flash point: °C ≥ 110
- Flammability (solid, gas): No data available.
- Explosive properties: vol. % No data available.
- Oxidizing properties: No data available.
- Vapour pressure at 20°: kPa > 5 (from literature)
- Density at 15 °C: kg/m³ ≤ 960
- Solubility in water at 20° C: g/L <0,1 (from literature)
- Partition coefficient n-octanol / water logPow 2,7-6 (from literature)
- Viscosity at 100 °C: mm²/s 18 – 47
- Vapour density: kg/m³ No data available.
- Volatility: No data available.

9.3. Other data:

- Melting point/Melting range: °C -1 to13 (from literature)
- Disintegration temperature: °C No data available.
- Auto-ignition temperature: °C No data available.
- Conductivity No data available.
- Miscibility No data available.
- Pour point °C ≤ 10

10. STABILITY AND REACTIVITY

- **Stability:** Stable under recommended conditions of storage and use.
- **Conditions to avoid:** Sources of heat, flame, spark.
- **Materials to avoid:** Strong oxidants, strong alkalis, and strong acids.
- **Hazardous decomposition products:** Burning produces carbon, nitrogen, and sulphur oxides.
- **Special hazards:** No data available

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11. TOXICOLOGICAL INFORMATION

- Acute toxicity

- oral (LD₅₀): >2000 mg/kg (rat)
(from literature)
- inhalation (LC₅₀): No data available.
- dermal (LD₅₀): >3160 mg/kg (rabbit)
(from literature)

- Chronic exposure

- oral (LD₅₀): No data available.
- inhalation (LC₅₀): No data available.
- dermal (LD₅₀): No data available.

- Irritation/Corrosion

- skin: Redness, dermatitis.
- eyes: Irritating effect possibly accompanied by redness.
- respiratory tract: No data available.

- Sensitisation

- skin: No data available.
- respiratory tract: Possible dizziness caused by a longer exposure to vapours.

- Other classic effects: (e.g. unconsciousness, particularly toxic metabolites, etc.): Long-term inhalation of vaporous causes a sense of intoxication, headache, irritation to vomiting, fainting.

- Permanent effect due to acute or chronic exposure: No data available.

- Special effects

- mutagenicity: No data available.
- carcinogenicity: May cause cancer (inhalation, oral).
Carc. Cat. 2 – accordance DSD
Carc. 1B – accordance CLP
- 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.

- Prohibitions and restrictions:

No data available.

- Other:

No data available.

12. ECOLOGICAL INFORMATION

12.1. Eco-toxicity

- to aquatic organisms: 48 mg/L (96h, fish)

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- 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: No data available.

Other data: No data available.

13. DISPOSAL CONSIDERATIONS

- Preferred disposal considerations:

- Waste from residues: There is no classic waste from this product, except in case of unintentional release. For such cases see Section 6.

- Contaminated packaging: Not applicable.

- Local applicable regulations: Waste Act, Decree on Waste Categories, Types, and Classification and Hazardous Waste List, Regulations on Waste Management Conditions, Decree on Conditions for Hazardous Waste Management.

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.

14. TRANSPORT INFORMATION

- Transport classification signs: -

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

DIESEL FUEL complying with standard EN 590 or GAS OIL or HEATING OIL, LIGHT with a flash-point as specified in EN 590

Road/Rail transport (ADR / RID):

UN number: 1202 **class:** 3 **risk label:** 3 **packaging group:** III

Inland Waterway (ADNR):

UN number: 1202 **class:** 3 **risk label:** 3 **packaging group:** III

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Sea transport (IMDG):

UN number: 1202 **class:** 3 **risk label:** 3 **packaging group:** III

Air transport (ICAO/IATA):

UN number: 1202 **class:** 3 **risk label:** 3 **packaging group:** III

- 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: No data available.

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; 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.

- Chemical Safety Assessment carried out (CSA):	YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>
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- Authorization information: -

- Restriction information: -

16. OTHER INFORMATION

Revision indicators

Section: **Subject of change:**

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- Section 1. EC index no.; Registration number; Relevant identified uses of the substance or mixture and uses advised against;
- Section 2. Classification and labelling according to Regulation (EC) No 1272/2008 (CLP/GHS); Classification and labelling according to Directive 67/548/EEC or 1999/45/EC;
- Section 3. Classification according to Regulation (EC) No 1272/2008 (CLP/GHS); Registration number
- Section 15. Applicable EU regulations; Authorization information; Restriction information
- Section 16. Full text of R-, H- phrases, EUH- and P-phrases; Abbreviations and acronyms

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

- R45 May cause cancer.
- H350 May cause cancer (inhalation, oral).
- P201 Obtain special instructions before use
- P202 Do not handle until all safety precautions have been read and understood
- P281 Use personal protective equipment as required.
- P308+P313 IF exposed or concerned: Get medical advice/attention
- P405 Store locked up
- P501 Dispose of contents/container to specify in accordance with national regulations

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%

Data source:

1. <http://ecb.jrc.ec.europa.eu/esis/>
2. **Concawe Report 11/10**, Hazard classification and labelling of petroleum substances in the European Economic Area – 2010
3. <http://echa.europa.eu/>

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APPENDIX: EXPOSURE SCENARIOS ACCORDING TO CHEMICAL SAFETY REPORT