
Product	VIRGIN NAPHTHA	Date:	17.5.2017
		Edition:	9

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

1.1. Product identifier

- Trade name: VIRGIN NAPHTHA
- Chemical name: Gasoline, straight-run, topping-plant
- Index no.: 649-270-00-7
- EC no.: 271-727-0
- CAS no.: 68606-11-1
- Registration No.: 01-2119494191-38-0007
- Product code: 1000190

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

- Relevant identified uses: **Industrial:** Manufacture of Substances, Formulation & (Re)Packing of substances, Use as intermediate.
- 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
pp 555, 10002 Zagreb, HRVATSKA

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:** **SD & HSE Sector**
Mirela Mavrinac, B.Sc. Tel. 00-385-1-6450-803
Hrvoje Raukar, 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):

Flam. Liq. 2; H225

Muta. 1B; H340

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Carc. 1B; H350
 Asp.Tox. 1; H304
 Repr.2; H361f
 STOT Single Exp.3;H336
 Skin Irrit. 2;H315
 Aquatic Chronic 2;H411
 Full text of H-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:



GHS02 GHS07 GHS08 GHS09

Signal word: Danger

Hazard statements (H):	H225	Highly flammable liquid and vapor.	
	H304	May be fatal if swallowed and enters airways.	
	H315	Causes skin irritation.	
	H336	May cause drowsiness or dizziness.	
	H340	May cause genetic defects (inhalation, oral, dermal).	
	H350	May cause cancer (dermal, inhalation, oral).	
	H361f	Suspected of damaging fertility or the unborn child.	
	H411	Toxic to aquatic life with long lasting effects.	
	Precautionary statements (P):	P201	Obtain special instructions before use
		P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
		P273	Avoid release to the environment.
P280		Wear protective gloves/protective clothing/eye protection/face protection.	
P301+ P310		IF SWALLOWED: Immediately call a POISON CENTER/doctor.	
P331		Do NOT induce vomiting.	
P403+ P233		Store in a well-ventilated place. Keep container tightly closed.	
P501	Dispose of contents/container in accordance with national regulations.		

2.3. Other hazards

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The product does not meet the criteria for PBT or vPvB classification in Annex XIII of REACH.

3. COMPOSITION / INFORMATION ON INGREDIENTS

-Substance:		Mixture:			
- Components contributing to product hazardoussness:					
Substance name	Substance identification			[%]	Classification according to Regulation (EC) No 1272/2008 (CLP/GHS)
	CAS no.	EC no.	Registration no. (REACH)		
Gasoline, straight-run, topping-plant	68606-11-1	271-727-0	01-2119494191-38-0007	≤100.0	Muta. 1B, H340 Carc. 1A, H350 Asp.Tox. 1, H304
Benzene*	71-43-2	200-753-7	-	> 0,1	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
n-hexane*	110-54-3	203-777-6	-	> 3	Flam. Liq. 2; H225 Repr. 2; H361f Asp. Tox. 1; H304 STOT RE 2*; H373 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Chronic 2; H411
Toluene*	108-88-3	203-625-9	-	< 3	Flam. Liq. 2 H225 Repr. 2; H361d Asp. Tox. 1; H304 STOT RE 2*H373 Skin Irrit. 2; H315 STOT SE 3; H336

* These components were not added on purpose but they are reported as important for classification

4. FIRST AID MEASURES

- General information:

- First aid procedures

- after inhalation: Remove the person from dangerous area to fresh air.
In case of headache, dizziness, nausea and permanent complaints immediately seek medical attention.
In case of fainting transport in lateral position to hospital, paying attention to the free passing of the air thorough the respiratory tract.
In case of difficulty in breathing or respiratory arrest, open airways, initiate resuscitation (heart massage and artificial respiration) and immediately seek medical attention.
- after skin contact: Take off the contaminated clothes and footwear. Thoroughly rinse the afflicted skin surface with water and soap for 10 - 15 minutes. In case of redness, immediately seek medical advice.

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- after eye contact: Remove contact lenses (if present) and flush the eyes with running water for at least 15 minutes. In case of irritation, blurred vision and swelling immediately seek medical attention.
- after ingestion: DO NOT invoke vomiting! Do not give anything by mouth! Always assume aspiration into the lungs has occurred. If vomiting occurs, keep the head below the level of hips in order to prevent penetration into the lungs. Immediately seek medical attention.
- **Note to person administering first aid/ physician:** Risk of pulmonary oedema due to aspiration into the lungs. Administering oxygen only by trained medical personnel.

5. FIRE FIGHTING MEASURES

- Extinguishing media

- SUITABLE: Foam and water mist, and dry powder, CO₂, sand and earth may be used for small fires only. When using dry powder and CO₂ (for initial fires, minor fires and indoor fires) attention is to be paid to the hazard of possible repeated flaring up of the fire after extinguishing.
- NOT SUITABLE: Water jet.

- **Firefighting measures for special hazards:** Eliminate all sources of ignition, call the fire-brigade and the police. Pay special attention to the permanent risk of formation of explosive mixture with air at ambient temperature.

- **Special firefighting measures:** Avoid simultaneous use of foam and water in the same area because water destroys foam.

- **Special fire fighter protective equipment:** Self-contained open circuit pressurised air breathing apparatus (HRN EN 137). Wear fireman protective clothing (intervention suit) according to HRN EN 469.

- **Special hazards arising from the substance or mixture:** Vapours, being heavier than air, stay close to the ground and in recesses, spreads along the ground and distant ignition is possible. Vapours will float and can be reignited on surface water.

- **Advice for firefighters:** No available data.

- **Additional information:** No available data.

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6. ACCIDENTAL RELEASE MEASURES

- Personal precautions:** Ventilate thoroughly the premises at risk. Display a visible sign prohibiting entrance, use of open flame and sparking devices. Measure the concentration of gasoline vapours in the air, according to the regulations. Take precautionary measures against static electricity. Ensure electrical conductivity by connecting and grounding all equipment. Monitor the area with a combustible gas detector. Do not use electrical equipment. Do not breathe the fumes or vapour. Do not smoke. Stand upwind from the point of discharge. Use personal protective equipment referred to in section 8.
- Environmental precautions:** Mark out the danger area and prevent leaks and spills into watercourses, channels, drainage systems and soil by digging a protective ditch and setting up partitions made of bags of dry sand, soil or clay. Ensure good air ventilation. In case of larger spills 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 potentially explosive atmosphere. Absorb the remainders with absorbents (sawdust, sand, mineral adsorbents and other inert materials). Store the waste material and contaminated surface layer of soil that was removed in tightly closed containers in well-ventilated premises. Hand over for disposal to legal entities for hazardous waste disposal, authorised by the Ministry in charge of environmental protection.
Wash spill site in the work area with soapy water and flush with fresh water after material pick-up is complete.
- Additional warnings:** Both liquid and fumes are extremely flammable!
In order to protect the local sea area and port infrastructure against pollution, vessels shall be surrounded by a safety barrier. In case of major spills, notify the Port Authority and the National Protection and Rescue Directorate at the number 112.

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7. HANDLING AND STORAGE

- Handling

- safety precautions: Handle in well-ventilated areas and keep away from food and beverages. Keep far from heat sources and eliminate all ignition sources. Never check the level in the tank near open flames, sparks or smoke. Never perform welding procedures in empty tanks without assessing the risks and taking precautionary measures. Do not use open flames near the tank area. Do not use sparking tools. Unload at unloading stations arranged according to the relevant regulations. Take specific care of the connections to prevent discharge into the sea or river. Observe safety and fire protection measures.

- safe handling advice: Prohibited smoking, eating, drinking as well as keeping food in areas where the product is handled. Personal clothes shall be kept separately from the work clothes and workplace. Obligatory wearing of the prescribed personal protective equipment defined in section 8. Extremely dirty, soaked or torn clothes must be immediately changed.
Strictly avoid contact with skin and eyes.

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

- **SUITABLE:** Store in tightly closed containers, properly built and equipped in a well-ventilated room and at appropriate temperature. Take precautionary measures against static electricity.

- **TO BE AVOIDED:** All other.

- Packaging materials

- **RECOMMENDED:** Prescribed for that purpose.

- **NOT SUITABLE:** Do not decant into replacement, damaged or inadequate containers.

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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Exposure limit values

Hazardous substance (CAS No.)	Occupational exposure limit values/short term values (OEL/STEL)		Biological limit values
	ppm	mg/m ³	
gasolines	100/-	300/-	No data available.
benzene	1/-	3,25/-	0,12 ppm (in extremely exhaled air – smoking increases the finding)

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n-hexane (110-54-3)	20/-	72/-	150 µg/L (in blood during exposure) 40 ppm (in extremely exhaled air during exposure)
Toluene (108-88-3)	50/192	100/384	1,0 mg/L (in blood at the end of work shift) 20 ppm (in extremely exhaled air during exposure)

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

8.2. Exposure controls

- **Summary of risk management measures:** Measuring the concentration of benzene vapours in the air, according to the regulations.

8.2.1. Occupational exposure controls

- **Description of operating procedure and technological control:** Make sure work areas are well-ventilated. Provide a decontamination sprayer for the eyes and face. Adopt personal hygiene measures: wash the hands after contact with the fuel, especially before eating, drinking and/or smoking. Regularly maintain and wash the clothing and equipment after use to remove dirt. Properly dispose of the contaminated clothing and equipment. Maintain cleanliness in accordance with good practice. Educate the employees on the hazards and control measures. Test and maintain the equipment used when handling the fuel: for example, personal protective equipment, ventilation system. Do not swallow. If swallowed, seek medical attention.

- **Personal protective equipment:** Personal protective equipment shall comply with national regulations and international standards.

- respiratory tract protection: Wear full face protective mask (HRN EN 136) with A filter (HRN EN 14387) at concentrations above 100 ppm.
Wear self-contained open circuit compressed air breathing apparatus (HRN EN 137) at concentrations above 3000 ppm.
- hand protection: Wear protective gloves made of stable and impervious material. During continuous contact wear gloves made of nitrile rubber, 0.40 thick; if contact is likely (drops) wear gloves made of nitrile rubber, 0.11 thick (HRN EN 374).
During shorter contact (4 h) wear gloves made of PVA (polyvinyl alcohol).
- eye protection: Protective goggles or guard (HRN EN 166) at lower concentrations, protective shields at higher concentrations.
- skin and body protection: Use chemical resistant gloves, clothing and apron (where there is a risk of splashing).

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- Special hygienic and safety precautions:

Maintain the prescribed hygiene standards for working with hazardous substances. Remove contaminated clothing and footwear. Inspect the equipment and devices regularly and maintain with running water.

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 available data

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information:

- state: liquid
- colour: colourless
- odour: characteristic of petrol
- odour threshold: No available data

9.2. Important health, safety and environmental information:

- pH value (indicate conc. and temp.): Not applicable.
- boiling point/boiling range: °C 25-190
- flash point: °C -40 (from literature)
- flammability (solid, gas): No data available.
- explosive properties: vol. % 0.7-8.0 (from literature)
- oxidizing properties: No data available.
- vapour pressure: kPa 95.0
- density at 15 °C: kg/m³ 640.0-745.0
- relative density: No data available.
- solubility (indicate solvent): g/L No data available.
- Solubility in water: g/L Not soluble.
- partition coefficient n-octanol / water: logPow Not applicable.
- 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/freezing point: °C No data available.
- disintegration temperature: °C No data available.
- auto ignition temperature: °C 280 - 470 (from literature)
- conductivity: pS/m No data available.

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10. STABILITY AND REACTIVITY

- **Reactivity:** Stable at prescribed storage and use conditions.
- **Chemical stability:** Stable at prescribed storage and use conditions.
- **Possibility of hazardous reactions:** Halogens, strong acids, alkali and strong oxidants.
- **Conditions to avoid:** Eliminate all sources of ignition, open flame and sparking because heating increases pressure and the risk of fire and explosion.
- **Incompatible materials:** Halogens, strong acids, alkali and strong oxidants.
- **Hazardous decomposition products:** There aren't any in normal working conditions and if the product is properly stored but thermal decomposition may produce harmful gases, including carbon monoxide (CO).

11. TOXICOLOGICAL INFORMATION

- **Information on toxicological effects:**
- **Acute toxicity**
 - oral (LD₅₀): > 5000 mg/kg_{body mass} (rat).
 - inhalation (LC₅₀): > 5,2 mg/L (rat).
 - dermal (LD₅₀): > 2000 mg/kg_{body mass} (rabbit).
- **Irritation/Corrosion**
 - skin: Causes skin irritation (H315).
 - eyes: Transient eye irritation with redness.
 - respiratory tract: No data available.
- **Sensitisation**
 - skin: No data available.
 - respiratory tract: No data available.
- **Aspiration hazard:** May be fatal if swallowed and enters airways (H304).
- **Other classic effects: (e.g. unconsciousness, particularly toxic metabolites, etc.):** May cause drowsiness or dizziness (H336).
- **Permanent effects due to acute or chronic exposure:** Long term exposure to virgin naphtha, due to its benzene content, may have adverse effects. Long-term exposure to benzene may cause serious damages to the central nervous system, immune system and blood and blood-forming organs (e.g. red bone marrow, lymph glands, spleen, lymph tissue in the lungs etc.)
- **Special effects**
 - mutagenicity: May cause genetic defects (H340).
 - carcinogenicity: May cause cancer (H350).

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- fertility decrease:	Suspected of damaging fertility or the unborn child (H361f).
- harmful effect on unborn child:	No data available.
- toxicity to reproduction:	No data available.
- other (e.g. endocrine disruptors):	No data available.
- STOT (SE):	May cause drowsiness or dizziness (H336).
- STOT (RE):	No data available.
- Prohibitions and restrictions:	No data available.
- Other:	No data available.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

- to aquatic organisms:	EL ₅₀ = 4,5 mg/L (<i>Daphnia magna</i>) EL ₅₀ = 3,1 mg/L (72h, <i>Selenastrum capricornutum</i>) LL ₅₀ = 8,2 mg/l (<i>Pimephales promelas</i>)
- to ground organisms:	No data available.
- to plants and land animals:	No data available.

12.2. Persistence and degradability

- biodegradation:	Not easily biodegradable.
- other degradation processes:	No data available.
- degradation in wastewater:	Insoluble in water. Creates a film on the surface wherefrom it evaporates quickly but if larger quantities are spilled aquatic organisms can be affected due to lack of oxygen.

12.3. Bioaccumulative potential

- bio-concentration factor (BCF):	No data available.
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12.4. Mobility in soil

- Known or predicted distribution in environmental compartments:	No data available.
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- surface tension:	No data available.
- absorption/desorption:	No data available.
- other physical and chemical properties:	See item 9.

Method: No data available.

12.5. Results of PBT and vPvB assessment

- data from chemical safety report:	Product does not fulfill PBT and vPvB criteria for classification defined by Annex XIII of REACH Regulation.
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12.6. Other adverse effects:	No data available.
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13. DISPOSAL CONSIDERATIONS

- **Waste codes:** **13 07 02***
- **Waste treatment methods:** If possible, the waste shall be recovered. Otherwise, waste shall be disposed of in accordance with current legislation for waste disposal.
- **Waste from residues:** Product has no classic waste except in case of accidental release/ discharging in which case see item 6.
- **Contaminated packaging:** Not applicable.
- **Relevant provisions:** Act on Sustainable Waste Management, Regulation on waste catalogue, Regulation on waste management.

14. TRANSPORT INFORMATION

- **UN proper shipping name:** -
 - **UN number:** **1268**
 - **Transport hazard class(es)**
 - ADR/RID/ADN/ICAO/IATA: 3
 - IMDG: 3
 - **Packing group**
 - ADR/RID/ADN/IMDG/ICAO/IATA: I
 - **Environmental hazards**
 - ADR, RID, ADN, ICAO/IATA: dangerous for environment
 - IMDG: -
 - **Special precautions for user**
- | | |
|---|---------------------------|
| ADR | RID |
| Transport category: 1 | Transport category: 1 |
| Vehicle for tank carriage: FL | Tank code: L4BN |
| Tank code: L4BN | Label: 3 |
| Tunnel restriction code: (D/E) | Classification code: F1 |
| Label: 3 | Hazard identification: 33 |
| Classification code: F1 | Special provisions: none |
| Hazard identification: 33 | |
| Special provisions: 363, 664 | |
| ADN | IMDG |
| Label: 3 | Subsidiary risk: - |
| Additional requirements/Remarks: 14, 27, 29 | Group of the cargo: E |
| Dangers: 3+(N1, N2, N3, CMR, F, S) | Special provisions: 363 |

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H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects (inhalation, oral, dermal).
H350	May cause cancer (dermal, inhalation, oral).
H361	Suspected of damaging fertility or the unborn child (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
H411	Toxic to aquatic life with long lasting effects.
P201	Obtain special instructions before use.
P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	If swallowed, immediately call a doctor.
P331	Do NOT induce vomiting.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container in accordance with national regulations.

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS number	Chemical Abstract Service number
CLP	Classification, Labelling and Packaging of substances and mixtures
CSA	Chemical Safety Assessment
CSR	Chemical Safety Report
EC number	European Community number for identification of chemical substances commercially available in the EU
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code transport
LC50	Lethal concentration for 50% of tested organisms
LD50	Lethal concentration for 50% of tested organisms (medium lethal concentration)
OIN	Oil industry notes
PBT	Persistent, bioaccumulative and toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations Concerning the International Transport of Dangerous Goods by Rail
STOT (SE)	Specific Target Organ Toxicity (Single Exposure)

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STOT (RE) Specific Target Organ Toxicity (Repeated Exposure)
UVCB Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials
vPvB Very persistent and very bioaccumulative

Statement:

This SDS is in compliance with the EU Regulation No. 1907/2006 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. www.hzt.hr
2. <http://echa.europa.eu/hr>
3. Concawe Report 9/15, Hazard classification and labelling of petroleum substances in the European Economic Area – 2015.

APPENDIX: EXPOSURE SCENARIOS ACCORDING TO CHEMICAL SAFETY REPORT
