

---

Product	<b>FCC PETROL EXTRACT</b>	Date:	11/11/2009
		Edition:	3

---

**1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING**

- **Trade name:** FCC Petrol Extract **CAS: 86290-81-5**
- **Chemical name:**
- **Product code:** 1000278
- **Registration number:**
- **Product use:** As a component for petrol blending or for extraction of aromatic hydrocarbons
- **Producer/supplier:** **INA-INDUSTRIJA NAFTE d.d.**
- Address:** Av. Većeslava Holjevca 10, P.O.B. 555, 10002 Zagreb, CROATIA
- Phone** 00-385-1-6450-842 / 00-385-1-6451-075 (0-24 h)
- Fax** 00-385-1-6452-050 **e-mail:** [sds@ina.hr](mailto: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.
- **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](mailto:info@duzs.hr) 00-485-1-3650-082  
00-485-1-3650-083
- **Medical Information Telephone Number:** **00-385-01-23-48-342**

**2. HAZARDS IDENTIFICATION**

- **Classification of substances/preparations (per hazard):**
- **The most important hazards and effects:**
- Human health hazards: May cause cancer. May induce hereditary genetic defects. Harmful: may cause lung damage if swallowed.
- Environmental hazards: No data available.
- Physical and chemical hazards: No data available.
- **Special hazards:** **See Section 10.**
- **Main symptoms of effects:**
- Inhalation: Headache, drowsiness, dizziness. Longer exposure to high concentrations may cause fainting, tonic convulsions, central breathing paralysis, and hypoxia if oxygen concentration drops below 17%.
- Skin: Irritating and defatting effect accompanied by redness and possible inflammation.
- Eyes: Irritating effect, redness, and possible inflammation.
- Ingestion: May cause mucous membrane irritation, stomach ache, nausea, vomiting and lung oedema due to lung aspiration, and subsequent respiratory tract inflammation.

Product	<b>FCC PETROL EXTRACT</b>	Date:	11/11/2009
		Edition:	3

- Overview of special conditions: No data available.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

- Substance:  Preparation:

- Components contributing to product hazardousness:

Name of the substance	Concentration [%]	EINECS number	CAS number	Hazard symbol	Risk phrase	Registration number
Benzene*	<8	200-753-7	71-43-2	F, T	R:45-46-11-36/38-48/23/24/25-65	-
Toluene*	<30	203-625-9	108-88-3	F, Xn	R:11-38-48/20-63-65-67	-
Ethylbenzene*	<8	202-849-4	100-41-4	F, Xn	R:11-20	-
m-xylene*	<25	203-576-3	108-38-3	Xn	R:10-20/21-38	-
p-xylene*	<8	203-396-5	106-42-3	Xn	R:10-20/21-38	-
o-xylene*	<12	202-422-2	95-47-6	Xn	R:10-20/21-38	-

\* Mentioned components were not added deliberately

### 4. FIRST-AID MEASURES

- General information:

- First-aid procedures:

after inhalation: Remove the person to fresh air, place in a half-lying position and keep calm. If necessary give artificial respiration and/or heart massage. In case of headache, dizziness, nausea and if difficulties persist, seek medical advice. If the person should faint, transport the person to hospital in lateral position ensuring the airways are clear and unobstructed.

after skin contact: Remove contaminated clothing and shoes, rinse the site of contact thoroughly with water and soap for at least 15 – 20 minutes. In case the symptoms persist, carry on with the decontamination and seek medical assistance.

after eye contact: Separate the eyelids with clean hands and rinse with running water for at least 15 – 20 minutes. In case of intense redness, irritation or tearing, seek ophthalmologist assistance.

after ingestion: Do NOT induce vomiting! Wash out the mouth with water. Place the affected person in a half-lying position and seek medical assistance.

- Note to first-aiders/physician: During the transport of the affected person to hospital instruction on medical care in case of poisoning with highly volatile solvents should be brought along. Keep calm and pay attention in case of vomiting because of the risk of lung oedema.

Product	<b>FCC PETROL EXTRACT</b>	Date:	11/11/2009
		Edition:	3

## 5. FIRE-FIGHTING MEASURES

### - Extinguishing media:

SUITABLE: Heavy air foam (alcohol-based foamer), dry powder, CO<sub>2</sub>, water mist.

When using dry powder and CO<sub>2</sub> (with initial, smaller fires and fires in confined areas) pay attention to possibility of re-occurrence of fire.

NOT SUITABLE: Water jet.

- **Fire-fighting measures for special hazards:** Eliminate all sources of ignition; if necessary call the fire-brigade and the police. Pay special attention to the permanent risk of formation of explosive mixture with air.

- **Special fire-fighting measures:** Use of water mist and water spray for cooling the surfaces exposed to heat and for protection of persons. Only persons trained in fire-fighting should use water spray.

- **Fire-fighting special safety equipment:** Self-contained open circuit pressurised air breathing apparatus (HRN EN 137), set for protection against heat radiation (fireproof suit).

- **Special exposure hazards:** Vapours are heavier than air and may accumulate at ground level and in dents.

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

## 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 petrol fumes in the air, pursuant to regulations. Protective equipment listed under Section 8 must be used. Stand upwind of the spill site.

- **Environmental precautions:** Mark 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 a 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 until disposal. Hand over for disposal to legal entities for hazardous waste disposal, authorised by the Ministry in charge of environmental protection.

Product	<b>FCC PETROL EXTRACT</b>	Date:	11/11/2009
		Edition:	3

**- Additional warnings:** Both liquid and fumes are extremely flammable!  
In case of traffic accident, properly ground the tank truck, mark the accident area and call responsible person and expert service in charge of taking care of the consequences of the accident.

## 7. HANDLING AND STORAGE

### - Handling:

**Safety precautions** Keep away from sources of heat. Immediately eliminate all sources of ignition. Decant at areas designated for the purpose with sufficient ventilation. Use only properly functioning equipment and devices. Do not use sparking tools.  
Make sure that the floor in the work premises and storage area is impervious and stable to solvents. Floors in areas with explosive atmosphere must have transfer resistance of <math><1M\Omega</math>. Ground all devices and take precautionary measures against static electricity.

**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.

### - 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 preventive measures against electrostatic charge.

Make sure that receiving tank farms are below self-supporting tanks.

**TO BE AVOIDED:** Avoid storing with other chemicals, especially flammable ones. Do not use sparking tools or devices in the storage area.

### - Packaging materials:

**RECOMMENDED:** Original, made by the manufacturer.

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

### - Special use: None

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Exposure limit values

Hazardous substance	Limit values for exposure (Croatia) ppm	Biological limit values
benzene	1	0.12 ppm (4.99 mmol/l) in end-exhaled air 16 hours after finishing shift - smoking enhances the value of test results

Product	<b>FCC PETROL EXTRACT</b>	Date:	11/11/2009
		Edition:	3

toluene	50	- 20 ppm (0.83 µmol/l) in end-exhaled air during exposure - 1.0 mg/L in blood at the end of the shift
ethylbenzene	100	- 2 ppm (83.20 nmol/l) in end-exhaled air approximately 16 hours after the end of the shift* - 1.50 mg/L in blood during exposure
xylene (all isomers)	50	- 1.50 mg/l in blood at the end of the shift – alcohol consumption prior to exposure enhances the value of test results

- **Monitoring procedures:** Monitoring the concentration of aromatics in the air.

## 8.2. Exposure control

- **Summary of risk management measures:**

### 8.2.1. Occupational exposure control

- **Description of operating procedure and technological control:** Ensure good ventilation in work area.

- **Personal protective equipment:**

Respiratory tract protection      Wear full face protective mask (HRN EN 136/AC:2006) with A filter (HRN EN 14387). Wear self-contained open circuit compressed air breathing apparatus (HRN EN 137/AC:2006).

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 374-1; HRN EN 374-2; HRN EN 374-3).

Eye protection                        Wear full face mask (HRN EN 136/AC:2006).

Skin and body protection            Protective clothing and footwear, nitrile rubber apron, chemical-resistant suit. Use set for protection against heat radiation.

- **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**

Product	<b>FCC PETROL EXTRACT</b>	Date:	11/11/2009
		Edition:	3

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. General information:

- State: liquid
- Colour: colourless
- Odour: characteristic of petrol

### 9.2. Important health, safety and environmental information:

- pH value (indicate conc. and temp.): No data available.
- Boiling point/Boiling range: °C 40 – 60 start  
145 – 170 finish
- Flash point: °C No data available.
- Flammability (solid, gas): No data available.
- Explosive properties: vol. % 1.4 – 7.4 (from literature)
- Oxidizing properties: No data available.
- Vapour pressure: Pa 20 - 40
- Density at 15 °C: kg/m<sup>3</sup> 810 - 835
- Solubility (indicate solvent): g/L No data available.
- Solubility in water: g/L No data available.
- Partition coefficient n-octanol / water logPow No data available.
- Viscosity: mm<sup>2</sup>/s No data available.
- Vapour density: kg/m<sup>3</sup> No data available.
- Volatility: No data available.

### 9.3. Other data:

- Melting point/Melting range: °C No data available.
- Disintegration temperature: °C No data available.
- Auto-ignition temperature: °C No data available.
- Conductivity No data available.
- Miscibility No data available.

## 10. STABILITY AND REACTIVITY

- **Stability:** Stable at prescribed storage and use conditions.
- **Conditions to avoid:** Sources of heat, flame, sparking.
- **Materials to avoid:** Halogens, strong acids, alkali and strong oxidants.
- **Hazardous decomposition products:** Carbon oxides (CO<sub>2</sub>, CO) – thermal decomposition products.
- **Special hazards**

Product	<b>FCC PETROL EXTRACT</b>	Date:	11/11/2009
		Edition:	3

## 11. TOXICOLOGICAL INFORMATION

### - Acute toxicity:

Oral (LD <sub>50</sub> )	No data available.
Inhalation (LC <sub>50</sub> )	No data available.
Dermal (LD <sub>50</sub> )	No data available.

### - Local effects:

Skin irritation	Temporary, possibly accompanied by redness and inflammation.
Eye irritation	Possible temporary irritation accompanied by redness.
Skin sensitization	Sensitive people may experience redness and stinging sensation.
Inhalation sensitization	No data available.

### - Chronic poisoning or long exposure:

May cause damages to health during longer exposure by inhaling, skin contact and ingestion (e.g. dermatitis or other skin irritations, eyes and throat irritation, lack of concentration, breathing difficulties, tiredness, central nervous system damage and the like).

### - Exposure effects

Single-term:	No data available.
Recurrent:	Depression of the central nervous system.
Long-term:	Due to benzene content, long term exposure 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.)

### - Momentary effects:

High concentrations of fumes cause stupor, headache, nausea, fainting and possible fatal outcome due to hypoxia.

### - Delayed effects:

May cause cancer; may induce hereditary genetic defects. May have adverse effect on the foetus.

### - Special effects

(carcinogenicity, mutagenicity and toxicity for reproduction):

Product is carcinogenic and mutagenic (canc.cat.1; mutag. cat. 2) because it contains benzene and reproductively toxic (rep. cat. 3) because it contains toluene.

Product	<b>FCC PETROL EXTRACT</b>	Date:	11/11/2009
		Edition:	3

## 12. ECOLOGICAL INFORMATION

### - Mobility:

Known or predicted distribution to environmental compartments	No data available.
Surface tension	No data available.
Soil absorption/desorption	No data available.
Other physical and chemical properties	See Section 9.

### - Persistence/degradability:

Biotic or abiotic degradation	No data available.
Aerobic or anaerobic degradation	No data available.
Persistence	No data available.

### - Bio-accumulation:

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

### - Results of PBT assessment:

#### - Product effect on the environment:

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.
Air	Evaporation causes emissions of non-methane volatile organic compounds (NMVOC) that cause the production of tropospheric ozone. Combustion releases harmful gases such as carbon dioxide (CO <sub>2</sub> ) and carbon monoxide (CO).
Soil	If larger quantities penetrate the soil there is a risk of groundwater contamination.

### - Eco-toxicity:

For aquatic organisms	15.95 mg/l (Daphnia magna, 48 hours) - data for unleaded petrol
For ground organisms	No data available.
For plants and land animals	No data available.

### - Other harmful effects:

No data available.

## 13. DISPOSAL CONSIDERATIONS

### - Preferred disposal considerations:

<b>Waste from residues:</b>	There is no classic waste from this product except in case of unintentional release. For such cases see Section 6. It is foreseen that contaminated residues be thermally treated.
<b>Contaminated packaging:</b>	Not applicable.
<b>Local applicable regulations:</b>	Waste Act; Decree on Amendments to Waste Act; Regulations on Waste Types; Regulations on Waste Management Conditions; Decree on Hazardous Waste Management Conditions; Decree on Waste Categories, Types and Classification with Waste Catalogue and Hazardous Waste List.

Product	<b>FCC PETROL EXTRACT</b>	Date:	11/11/2009
		Edition:	3

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: Petroleum distillates, n.o.s. or petroleum products n.o.s.

##### Road/Rail transport (ADR / RID):

UN number: 1268 class: 3 packaging group: II

##### Inland Waterway (ADNR):

UN number: 1268 class: 3 packaging group: II

##### Sea transport (IMDG):

UN number: 1268 class: 3 packaging group: II

##### Air transport (ICAO/IATA):

UN number: 1268 class: 3 packaging group: II

- 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: Fire Hazard 3

#### 15. REGULATORY INFORMATION

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

- Data on hazards and safety measures (according to label):

Danger symbol

T



Risk phrases

R: 45 May cause cancer.  
46 May cause heritable genetic damage.  
65 Harmful: may cause lung damage if swallowed.

Product	<b>FCC PETROL EXTRACT</b>	Date:	11/11/2009
		Edition:	3

<b>Safety phrases</b>	S: 53	Avoid exposure -- obtain special instructions before use.
	45	In case of accident or if you feel unwell, seek medical advice immediately ( <i>show the label where possible</i> ).
<b>- Applicable provisions, regulations and directives:</b>		Chemicals Act; Regulations on Hazardous Substance Exposure Limit Values and Biological Limit Values; Regulations on Filling in the Material Safety Data Sheet; Regulations on Hazardous Chemicals Classification, Marking, Labelling and Packaging

## 16. OTHER INFORMATION

<b>Risk phrases (for ingredients)</b>	R10	Flammable.	
	R 11	Highly flammable.	
	R 20	Harmful by inhalation.	
	R 20/21	Harmful by inhalation and in contact with skin.	
	R 38	Irritating to skin.	
	R 36/38	Irritating to eyes and skin.	
	R 48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.	
	R 48/23/24/25	Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.	
	R 63	Possible risk of harm to the unborn child.	
	R 67	Vapours may cause drowsiness and dizziness.	
	<b>Safety phrases (for ingredients)</b>	S 2	Keep out of the reach of children.
		S 16	Keep away from sources of ignition -- No smoking.
		S 25	Avoid contact with eyes.
		S 29	Do not empty into drains.
S 24/25		Avoid contact with skin and eyes.	
S 36/37		Wear suitable protective clothing and gloves.	
S 62		If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.	

---

Product	<b>FCC PETROL EXTRACT</b>	Date:	11/11/2009
		Edition:	3

---

**Statement:**

This SDS is in compliance with Croatian legislation. Users are responsible for adherence to local laws and regulations. SDS contains information important for users' health and safety, as well as environmental protection. Data contained in this document correspond to our knowledge acquired on the product so far. The product should not be used for the purposes other than those mentioned in instructions. In case of mixing with other products, existence of additional risks/hazards should be checked. We shall assume no responsibility for any failure to meet the requirements of this SDS.

**Data source:**

**Revision indicators:**

Compared to Edition 2, Edition 3 of this Safety Data Sheet (SDS) is a completely new edition conformed to the requirements of Regulations on Filling in the Material Safety Data Sheet, OG 39/09 and Regulation (EC) No. 1907/2006.

**Section:**            **Subject of change:**

---

**APPENDIX:**

**EXPOSURE SCENARIOS ACCORDING TO CHEMICAL SAFETY REPORT**

---