

Product	<b>MOSLAVINA CRUDE OIL</b>	Date:	5/10/2015
		Edition:	8

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

### 1.1. Product identifier

- Trade name: MOSLAVINA CRUDE OIL
- Chemical name: Oil, crude oil
- EC index no.: 649-049-00-5
- EC no.: 232-298-5
- CAS no.: 8002-05-9
- Registration No.: This substance is not subject to registration in accordance with Annex V. of Regulation (EC) No. 1907/2006 (REACH)
- Product code: 1000021

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

- Relevant identified uses: Raw material.
- 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 Holjevca 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](mailto:sds@ina.hr)
- Responsible person: **Sustainable Development and Health, Safety and Environment Sector**  
Mirela Mavrinac, B. Sc.  
Hrvoje Raukar, B.Sc.  
Tel. 00-385-1-6450-803

### 1.4. Emergency Telephone Number

- Emergency Service Telephone Number: **112**
- National Protection and Rescue Directorate  
Nehajska 5, 10000 Zagreb  
e-mail: [info@duzs.hr](mailto:info@duzs.hr)  
00-385-1-3650-011  
00-385-1-3650-084  
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

Asp.tox.1;H304

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Eye Irrit. 2; H319  
Carc. 1B; H350  
STOT SE 3; H336  
STOT RE 2; H373  
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 vapour.	
	H304	May be fatal if swallowed and enters airways.	
	H350	May cause cancer.	
	H319	Causes serious eye irritation.	
	H336	May cause drowsiness or dizziness.	
	H373	May cause damage to organs through prolonged or repeated exposure.	
	H411	Toxic to aquatic life with long lasting effects.	
	EUH066	Repeated exposure may cause skin dryness or cracking.	
	Precautionary statements (P):	P201	Obtain special instructions before use.
		P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P260		Do not breathe vapours.	
P280		Wear protective gloves/protective clothing/eye protection/face protection.	
P281		Use personal protective equipment as required.	
P301+310		IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.	
P331		Do NOT induce vomiting.	
P501		Dispose of contents/container to accordance with legal	

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regulation

### 2.3. Other hazards

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

Note OIN 4

Classification of substance according to CLP Regulation, as flammable liquid category 1 should not be applied if it is possible to establish that the flash point and initial boiling point comply with the CLP classification criteria as flammable liquid category 2 or 3.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

<b>-Substance:</b>	<b>X</b>		<b>Mixture:</b>		
<b>- Components contributing to product hazardousness:</b>					
Substance name	Substance identification			[%]	Classification according to Regulation (EC) No 1272/2008 (CLP/GHS)
	CAS no.	EC no.	Registration no. (REACH)		
Oil; crude oil	8002-05-9	232-298-5	-	>95	Flam. Liq.2; H225 Asp.tox.1; H304 Eye Irrit.2; H319 Carc. 1B; H350 STOT SE 3; H336 STOT RE 2; H373 Aquatic. Chronic 2; H411
Benzene*	71-43-2	200-753-7	-	< 1	Flam. Liq. 2; H225 Carc. 1A; H350 Muta. 1B; H340 STOT RE1; H372 Asp. tox. 1; H304 Eye Irrit 2; H319 Skin Irrit 2; H315
Toluene*	108-88-3	203-625-9	-	< 2	Flam. Liq. 2; H225 Repr. 2; H361d Asp. tox.1; H304 STOT RE 2; H373 Skin Irrit 2; H315 STOT SE 3; H336
Ethylbenzene*	100-41-4	202-849-4	-	< 0,5	Flam. Liq. 2; H225 Ac. tox. 4; H332
m-,p-xylene*	1330-20-7	215-535-7	-	< 2	Flam.Liq.3; H226 Ac. tox.4; H332 Ac. tox.4; H312 Skin Irrit 2; H315
o-xylene*	1300-20-7	215-535-7	-	< 1	Flam.Liq.3; H226 Ac. tox.4; H332 Ac. tox.4; H312 Skin Irrit 2; H315
*These components were not added on purpose but are reported as important for classification					

### 4. FIRST AID MEASURES

**- General information:**

**- First aid procedures**

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- after inhalation: Remove the person from contaminated area, in case of symptoms, especially difficult breathing, seek medical assistance.
- after skin contact: Remove contaminated clothes and shoes and flush the skin thoroughly with water and soap for at least 15 minutes.
- after eye contact: Flush with running water for at least 15 minutes.
- after ingestion: Do NOT induce vomiting! In case of any symptoms seek medical assistance.
- **Note to person administering first aid/ physician:** Danger of pulmonary edema during aspiration in the lungs.

## 5. FIRE FIGHTING MEASURES

- **Extinguishing media:**
  - SUITABLE: Foams, powder, CO<sub>2</sub> (for closed areas).
  - NOT SUITABLE: Water jet.
- **Fire fighting measures for special hazards:** Eliminate all sources of ignition and immediately call the fire brigade and the police.
- **Special fire fighting measures:** Use sprayed water for cooling containers, equipment and access to fire site. Use of water mist and water spray for cooling surfaces of undamaged containers exposed to heat and for protection of persons. Only personnel trained in fire-fighting may use water spray (dispersed water).
- **Special fire fighter equipment:** Fire fighter protection clothing should be in accordance with HRN EN 469 standard.  
For protection of respiration system, use self-contained open-circuit compressed air breathing apparatus according to HRN EN 137 standard.
- **Special hazards of exposure:** No data available.
- **Other information:** No data available.

## 6. ACCIDENTAL RELEASE MEASURES

- **Personal precautions:** Use personal protective equipment from item 8. Display visible signs prohibiting entrance, use of open flame and sparking devices. Remove unprotected persons from contaminated area.
- **Environmental precautions:** Mark out the contaminated area with signs and prevent leaks and spills into watercourses, channels, drainage systems and soil by digging a protective ditch, setting up partitions made of bags of dry sand, soil or clay. Set up floating booms to enclose water spills. Reloading into undamaged tanks to be performed by taking all safety measures against static electricity.

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**- Methods for cleaning-up and recovery:**

Pump the product from the damaged tank into an empty tank - container with the pump designed for safe use. 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 and store 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:**

In case of spills in the waters, notify Emergency Service at 112.

## 7. HANDLING AND STORAGE

**- Handling:**

- safety precautions: Follow the measures of occupational safety and fire protection. Keep away from heat sources and eliminate all ignition sources. Ensure good ventilation of the area.

- safe handling advice: Reloading to be performed in an open area with prescribed functioning equipment.

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

- SUITABLE: Properly constructed and equipped tanks in accordance with regulations for flammable liquids.

- TO BE AVOIDED: Everything else, especially storage near watercourses.

**- Packaging materials:**

- RECOMMENDED: Authentic and original made by the container manufacturer.

- NOT SUITABLE: It is not allowed to reload in other, alternative, damaged or inadequate containers.

- **Special use:** None.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Exposure limit values

Hazardous substance	Exposure limit values (Croatia) ppm	Biological limit values
benzene	1	0.12 ppm (in extremely exhaled air, around 16 h after work shift)
ethylbenzene	100	2 ppm (in extremely exhaled air, around 16 h after work shift) 1.50 mg/L (in blood during exposure)

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toluene	50	20 ppm (in extremely exhaled air during exposure) 1.0 mg/L (in blood at the end of work shift)
o,m,p-xylene	50	1.50 mg/L (in blood at the end of work shift – alcohol consumption before xylene exposure increases the finding)

- **Monitoring procedures:** Measuring oxygen concentrations in air, according to the regulations.

## 8.2. Exposure controls

- **Summary of risk management measures:** No data available.

### 8.2.1. Occupational exposure controls

- **Description of operating procedure and technological control:** Provide good ventilation / air outlet in the premises.

#### - Personal protective equipment

- respiratory tract protection: In case of accidents when vapour concentration exceeds the exposure limit values, wear a protective mask (HRN EN 136) or with filter "A" (HRN EN 14387), while when oxygen concentration drops below 17%, use the self-contained open-circuit compressed-air breathing apparatus (HRN EN 137).

- hand protection: Wear protective gloves made of stable and impermeable material. In case of full contact wear gloves made of nitrile rubber, 0.40 mm thick; in contact with drops wear gloves made of nitrile rubber, 0.11 mm thick. In case of longer exposure use gloves made of viton (HRN EN 374-3).

- eye protection: Protective goggles (HRN EN 166).

- skin and body protection: Protective clothing made from natural fabrics and appropriate footwear, rubber boots (HRN ISO 10335).

- **Special hygienic and safety precautions:** Remove contaminated clothing and footwear. The workplace must be equipped with a shower. Regularly check and maintain the equipment and devices by washing with running water. Eating, drinking and smoking are prohibited in the workplace. After each interruption of work, washing hands is obligatory.

### 8.2.2. Environmental exposure controls

- **Summary of risk management measures:** No data available.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. General information:

- state: Liquid.
- colour: Dark brown – black.

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- odour: Characteristic, similar to hydrocarbons.

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

- pH value (indicate conc. and temp.):		No data available.
- boiling point/boiling range:	°C	52.7– 381.4
- flash point:	°C	- 46
- flammability (solid, gas):		No data available.
- explosive properties:	vol. %	No data available.
- oxidizing properties:		Product does not have oxidizing properties.
- vapour pressure:	kPa	40 – 50
- density at 15 °C:	kg/m <sup>3</sup>	845.1
- solubility (xylene, toluene):	g/L	Soluble.
- Solubility in water:	g/L	Insoluble.
- partition coefficient n-octanol / water	logPow	No data available.
- viscosity (kinematic) at 20 °C:	mm <sup>2</sup> /s	6.872 – 7.456
- vapour density at 15°C:	kg/m <sup>3</sup>	No data available.
- volatility:		No data available.

## 9.3. Other data:

- melting point/melting range:	°C	No data available.
- pour point:	°C	9
- disintegration temperature:	°C	No data available.
- auto ignition temperature:	°C	271
- conductivity:	pS/m	38000
- miscibility:		No data available.

## 10. STABILITY AND REACTIVITY

- <b>Stability:</b>	Stable at the prescribed conditions of use and storage. Does not polymerize.
- <b>Conditions to avoid:</b>	Remove all ignition sources, heat and open flame.
- <b>Materials to avoid:</b>	Strong oxidants.
- <b>Hazardous decomposition products:</b>	None in standard operating conditions and in proper storage.
- <b>Special hazards:</b>	No data available.

## 11. TOXICOLOGICAL INFORMATION

### - Acute toxicity

- oral (LD <sub>50</sub> ):	≥ 5000 mg/kg (rat)
- inhalation (LC <sub>50</sub> ):	≥ 5.04 mg/L/4 h (rat)
- dermal (LD <sub>50</sub> ):	≥ 2000 mg/kg (rabbit)

### - Chronic exposure

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- oral (LD<sub>50</sub>): No data available.
- inhalation (LC<sub>50</sub>): No data available.
- dermal (LD<sub>50</sub>): No data available.
- Irritation/Corrosion**
- skin: Skin dryness and cracking.
- eyes: No data available.
- respiratory tract: May cause lung damage if swallowed.
- Sensitisation**
- skin: Temporary irritation and redness possible in sensitive persons.
- respiratory tract: No data available.
- Other classic effects: (e.g. unconsciousness, particularly toxic metabolites, etc.):** Nausea, vomiting, cough and difficulty breathing. Pulmonary edema may occur in case of aspiration.
- Permanent effect due to acute or chronic exposure:** Frequent exposure may cause skin drying or cracking.
- Special effects**
- mutagenicity: Human exposure to benzene may cause heritable genetic damage (Muta.1B).
- carcinogenicity: Evidence that benzene causes cancer in humans (Carc.cat. 1A).  
Crude oil may cause cancer in humans (Carc.cat. 1B).
- fertility decrease: Toluene may decrease fertility in humans (Repr.cat. 2).
- 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: Harmful to aquatic organisms, may cause long lasting harmful effects to aquatic life.
- to ground organisms: Data from experience indicates that there is danger for ground organisms.
- to plants and land animals: No data available.

### 12.2. Mobility

**Method:** No data available.

- known or predicted distribution to environmental compartments: Insoluble in water.



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- surface tension: No data available.
- absorption/desorption: No data available.
- other physical and chemical properties: See item 9.

**12.3. Persistence/degradability**

- biotic degradation: Partially degradable.
- 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:**

If handled properly there are no known negative effects for the environment. Due to quick evaporation, pollution of soil and water is not probable.

**13. DISPOSAL CONSIDERATIONS**

**- Preferred disposal considerations:**

- **Waste from residues:** Product has no classic waste, except in case of accidental release. In that case see item 6. Hand over residues referred to in item 6 to authorised person for disposal.
- **Contaminated packaging:** Not applicable.
- **Local applicable regulations:** Act on sustainable waste management, Ordinance on Waste Catalogue, Regulations on Waste Management Conditions.

**14. TRANSPORT INFORMATION**

**- Transport classification signs:**

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

Crude oil

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

**UN number:** 1267    **class:** 3    **risk label:** 3    **packaging group:** II

**Inland Waterway (ADNR):**

**UN number:** 1267    **class:** 3    **risk label:** 3    **packaging group:** II

**Sea transport (IMDG):**

**UN number:** 1267    **class:** 3    **risk label:** 3    **packaging group:** II

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

**UN number:** 1267    **class:** 3    **risk label:** 3    **packaging group:** II

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- **Additional regulations:** Hazardous Materials Transport Act, European Agreement on International Road Transport of Hazardous Materials (ADR – Appendixes A and B), Regulation on the Prevention of Major Accidents Involving Dangerous Substances.
- **Special precautions and transport conditions:** No data available.

## 15. REGULATORY INFORMATION

- **Applicable EU regulations:** EU Regulation No. 1907/2006 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;  
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  NO
- **Authorization information:** -
- **Restriction information:** -

## 16. OTHER INFORMATION

### Revision indicators

**Section: Subject of change:**

- Section 2, 3, 11, 16. Classification data according to directive 67/548/EEC or 1999/45/EC removed.
- Section 3. Data on component concentration changed.
- Section 5. Data on special fire fighter equipment changed.
- Section 9. Data on physical – chemical properties changed.
- Section 12. Data on mobility changed.
- Section 14. Data on packaging group changed.

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

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H350	May cause cancer.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.
P201	Obtain special instructions before use.
P210	Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P260	Do not breathe vapours.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P301+310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331	Do NOT induce vomiting.
P501	Dispose of contents/container to accordance with legal regulation.

### Abbreviations and acronyms:

<b>CSA</b>	Chemical Safety Assessment
<b>CSR</b>	Chemical Safety Report
<b>PBT</b>	Persistent, bioaccumulative and toxic
<b>vPvB</b>	Very persistent and very bioaccumulative
<b>STOT (RE)</b>	Specific Target Organ Toxicity (Repeated Exposure)
<b>STOT (SE)</b>	Specific Target Organ Toxicity (Single Exposure)
<b>UVCB</b>	Unknown or Variable composition Complex reaction product or Biological origin
<b>LD<sub>50</sub></b>	Lethal Dose, 50%
<b>LC<sub>50</sub></b>	Lethal Concentration, 50%

### Statement:

This SDS is in compliance with the EU Regulation No. 1906/2007 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.

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**Data source:**

1. Concawe Report 11/14, *Hazard classification and labelling of petroleum substances in the European Economic Area – 2014*
2. <http://echa.europa.eu/>
3. <http://www.hzt.hr/>

**APPENDIX: EXPOSURE SCENARIOS ACCORDING TO CHEMICAL SAFETY REPORT**

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