

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

- Trade name: **NAPHTHALENE CONCENTRATE**
- Chemical name: Naphthalene
- Registration number REACH: 01-2119561346-37-0002
- Index number: 601-052-00-2
- CAS number: 91-20-3
- EC number: 202-049-5

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

1.2.1 Identified uses

Intermediate product for the production of chemical elements used during its whole life cycle under strictly controlled conditions defined in article 18(4) of Regulation (EC) No 1907/2006 REACH – see Section 16.

1.2.2 Non-recommended uses

Substance was registered as a transported isolated intermediate product used during its whole life cycle under strictly controlled conditions defined in article 18(4) of regulation (EC) no. 1907/2006 REACH – see Section 16, and as such no other form of manipulation is allowed.

1.3 Details of the supplier of the safety data sheet

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- Person professionally qualified to compile a SDS: reach.unirpa@unipetrol.cz

1.4 Emergency telephone number

- UNIPETROL RPA, s.r.o. ☎: +420 476 163 111 (NON STOP)
- Toxicological Information Center (TIS) ☎: +420 224 919 293 (NON STOP)
Na bojišti 1, 120 00 Prague 2, Czech Republic ☎: +420 224 915 402 (NON STOP)
e-mail: tis@vfn.cz
- Transport Information & Accident System (TRINS) ☎: +420 476 163 111 (NON STOP)

Note: Emergency telephone numbers for EU countries are listed in section 16.

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

The product is classified as hazardous pursuant to CLP Regulation (EC) No. 1272/2008 CLP:

FLAMMABLE SOLID, CATEGORY 2

ACUTE TOXICITY, CATEGORY 4

CARCINOGENIC, CATEGORY 2

Flam. Solid 2, H 228

Acute Tox. 4; H302

Carc. 2, H 351

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HAZARDOUS TO THE AQUATIC ENVIRONMENT, CATEGORY ACUTE 1


Aquatic Acute 1, H 400

HAZARDOUS TO THE AQUATIC ENVIRONMENT, CATEGORY CHRONIC 1

Aquatic Chronic 1, H 410

Note: The full text of the H-sentence and / or EUH-sentences is stated in Section 16.

2.2 Label elements

Product identifiers	<p>NAPHTHALENE CONCENTRATE NAPHTHALENE Index number: 601-052-00-2</p>	
Warning hazard symbol		
Signal word	WARNING	
H-phrases (standard hazard phrases)	H228 H302 H351 H410	Flammable solid. Harmful if swallowed. Suspected of causing cancer. Very toxic to aquatic life with long lasting effects.
P-statements (precautionary statements)	P201 P273 P280 P308+P313 P370+P378 P405 P501	Obtain special instructions before use. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. IF exposed or suspected exposure: Get medical advice / attention. In case of fire: Use water mist / powder / CO2 to extinguish. Store locked up. Dispose of contents / container as hazardous waste.
Additional information	none	
	<p>UNIPETROL RPA, s.r.o. Záluží 1, 436 70 Litvínov, Czech Republic ☎: +420 476 161 111, +420 476 163 111</p>	

2.3 Other hazards

Product dust and its released vapours may form flammable or explosive mixtures with air. Loose dust and fumes can form flammable or explosive mixtures with air. Its loose dust or fumes can cause in some people irritation of mucous membranes of the respiratory tract and eyes and on contact with skin support the creation of dermatitis (skin diseases). Absorbed through intact skin as well. Causes haemolysis (breakdown of red blood cells).

There is a risk of burns when handling the product in hot molten state.

Product assessments for PBT / vPvB criteria see Subsection 12.5 ("Results of PBT and vPvB assessment").

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Name of the substance:	NAPHTHALENE
Concentration [% hm.] :	cca 93
Index number (index):	601-052-00-2



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CAS number:	91-20-3
EC number:	202-049-5

IMPURITIES	NAME:	IDENTIFIER :
<i>The product does not contain any impurities, stabilizing additives or other components, which would have an impact on its classification.</i>		

3.2 Mixtures

Not applicable, the product is a substance.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 General instructions

When providing first aid pay attention to self-protection.

Call emergency medical services (☎155 ČR, ☎120 EU) and follow their instructions until their arrival. Secure the vital body functions. If the affected person is not breathing normally even after the head has been tilted back (just so that the head is back into the normal, resting position and no longer tucked down on to the chest) perform resuscitation by compressing the chest to a depth of about 5 cm at a frequency of 100-120 per minute. If you are trained in artificial respiration do 2 insufflations (known as rescue breaths) after every 30 chest compressions. Do not stop the heart massage until the rescue service arrives.

If the person is in unconscious or if he/she has spasms, do not put anything in his/her mouth, just put him/her into a stabilised position.

4.1.2 When inhaled

With regard to your own safety move the victim to fresh air, do not let him /her get cold and seek medical advice.

4.1.3 Skin contact

Remove contaminated clothing and shoes. Wash off affected areas thoroughly with water (preferably lukewarm) and soap. In the case of persistent irritation symptoms seek medical advice.

In case of burns, do not remove the product, cover the affected area with sterile gauze (or a clean cloth) and immediately seek medical advice

4.1.4 Contact with eyes

Immediately flush the eyes with wide open lids under running warm water for at least 15 minutes. If the victim wears contact lenses, remove them before flushing. Seek medical advice.

4.1.5 When ingested

NEVER INDUCE VOMITING! Rinse mouth with water only. If vomiting occurs spontaneously, keep the victim's head below its hips to prevent aspiration. Seek medical help as quickly s possible.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects depend on the size of the exposure dose. Inhalation of the product irritates the respiratory tract and may cause headaches, vomiting, increased sweating, confusion or apathy. Ingestion leads to irritation of the gastrointestinal tract and induce vomiting and diarrhoea. Tremors, convulsions and respiratory paralysis may appear. Irritated eyes become red, sore, condition leads to blurred vision and severe irritation leads to damage to the cornea, or to the formation of cataracts. Skin contact may encourage the emergence of dermatitis (skin diseases).

Handling the product in its hot state may cause burns.

4.3 Indication of any immediate medical attention and special treatment needed

When burned, cases of ingestion or any manifestations of nausea require immediate medical attention.

Symptoms of poisoning may occur only after several hours, therefore medical observation for at least 48 hours after exposure is essential.

If gastric lavage is necessary, then it must only be performed by a qualified doctor via endotracheal intubation. We recommend that the workplace is equipped with a safety shower and eyewash facility.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: heavy foam, spray or water mist.

Unsuitable extinguishing media: Direct water jet.

Extinguishing small fires: extinguishing powder or snow (CO₂), dry sand or extinguishing foam.

5.2 Special hazards arising from the substance or mixture

Loose dust and fumes can form flammable or explosive mixtures with air. Vapours can spread and cause subsequent ignition. Containers with the substance may explode as the result of excessive heat. Burning can produce toxic fumes containing carbon monoxide and carbon dioxide.

5.3 Advice for firefighters

Minimize the penetration of the extinguishing liquid polluted with substance into sewage, surface water, groundwater and soil.

Use water spray to keep the containers cool in order to prevent an explosion caused by the heat.

Do not use foam and water at the same time because water dissolves the foam.

Protective equipment for fire fighters: full protective gear and self-contained close-circuit breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Close the scene of the accident and prevent access to the danger area. Stay upwind. In the event of leakage of this product there is a risk of fire and therefore remove all possible ignition sources, do not smoke or handle open fire. If possible, ensure adequate ventilation of enclosed spaces. Avoid formation of dust from solid product. Avoid contact with the substance, its dust and with its vapours. In the aftermath of an incident / accident use all recommended personal protective equipment (see subsection 8.2). In the event of major accidents evacuate people from around the danger area.

6.2 Environmental precautions

Prevent further spillage of the substance and fence off the leakage point. Prevent substance entering drains, surface and ground water by covering back-inlet gulleys. Do not allow the substance to enter into soil/subsoil.

6.3 Methods and material for containment and cleaning up

The leakage of the product creates the risk of fire, therefore use explosion-proof lamps and electrical equipment and non-sparking tools. Move scattered material mechanically into suitable dry sealed container for further treatment or later disposal. Dispose in accordance with applicable waste legislation (see section 13).

6.4 Reference to other

For recommended personal protective aids – see Subsection 8.2 (“Exposure controls”).

For recommended manner of removing waste – see Section 13 (“Disposal considerations”).

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

The product is produced and must be used during its whole life cycle under strictly controlled conditions defined in Regulation (EC) No 1907/2006 REACH. All these conditions must be kept in order to ensure safe

handling and to prevent the exposure of people and the environment, with the exception of accidents and emergency events.

General safety and hygienic measures: Use only in sufficiently aired places that do not contain any ignition sources, take all necessary measures to prevent static energy discharges. Do not use compressed air for emptying, filling or any other handling. Please bear in mind that even empty containers can contain remains of flammable vapors; therefore do not perform activities such as welding, cutting or grinding near these containers.

Please keep the rules of personal hygiene. Take off contaminated pieces of clothing. Do not eat, drink or smoke during work! Wash your hands and exposed parts of body thoroughly with soap and water after work and before meal and possibly treat with suitable repair lotion. Do not wear contaminated clothing, shoes or protective equipment in the catering area.

7.2 Conditions for safe storage, including any incompatibilities

The product is produced and must be used during its whole life cycle under strictly controlled conditions defined in Regulation (EC) no. 1907/2006 REACH. For safe storage it is necessary to observe all of these conditions to exclude, with the exception of accidents or emergency events the likelihood of exposure to humans and the environment. Store in a cool, well-ventilated place with effective exhaust, away from heat sources and all sources of ignition. Storage containers must be tightly closed, properly labelled and earthed. Do not store near incompatible materials, such as e.g. oxidizers, protect from moisture. Store the molten product in containers heated above its solidification temperature.

7.3 Specific end use(s)

The substance is registered as a transported isolated intermediate product produced and used under strictly controlled conditions defined in Article 18(4) of Regulation (EC) No 1907/2006 REACH (see Section 16), and therefore must be handled as such. Instructions including a proposal for mapping and documenting strictly controlled conditions on workplace are available at the following webpage: <http://www.cefic.org/Documents/IndustrySupport/REACH-Implementation/Guidance-and-Tools/Strictly%20Controlled%20Intermediate.pdf>.

In case of accidental release the handling and storage place and methods of handling the substance must correspond to working with flammable substances with a potential to damaging waters and soils.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational exposure limit values

The following Permissible Exposure Limits (PELs) and Maximum Allowable Concentrations (NPK-P) of Chemicals in the Atmosphere of Workplaces within the Czech Republic are set by the Government Regulation No. 361/2007 Coll., determining conditions of occupational health protection, as amended:

Name	CAS number	PEL [mg.m ⁻³]	NPK-P [mg.m ⁻³]	Note
Naphthalene	91-20-3	50	100	

Note 1: An explanation of the meaning of the PEL and NPK-P abbreviations is in section 16.

Note 2: Occupational exposure limit values for EU countries are listed in section 16.

8.1.2 DNEL/DMEL values

According to Article 2 (8) of Regulation (EC) No 1907/2006 REACH the isolated intermediates are not subject to the obligation to assess chemical safety and to prepare a chemical safety report within the meaning of Article 14 of this Regulation and therefore no DNEL / DMEL values have been set for this product by the manufacturer of the intermediates.

8.1.3 PNEC values

According to Article 2 (8) of Regulation (EC) No 1907/2006 REACH the isolated intermediates are not subject to the obligation to assess chemical safety and to prepare a chemical safety report within the meaning of Article 14 of this Regulation and therefore no PNEC values have been set for this product by the manufacturer of the intermediates.

8.1.4 Recommended monitoring of concentrations in the workplace
 Gas chromatography (GC) with a flame ionizing detector (FID) or a mass spectrometer (MS) in accordance with technical norms ČSN EN 689 and ČSN EN 482.

8.2 Exposure control

8.2.1 Technical protective measures for limiting the exposure of people and the environment

The product is produced and must be used during its whole life cycle under strictly controlled conditions defined in Regulation (EC) No 1907/2006 REACH (see Section 16).

Exposure control of unwanted exposure of humans and the environment shall be secured by keeping the substance under strict control using technical aids and procedural and control technologies, which reduce emissions and consequent exposure, with the objective to prevent releases of the substance vapors in the air, penetration of the substance to water and soil and possible exposure of people. Areas, where the substance is handled and stored, shall be furnished with impermeable floors and catchment basins for the cases of emergency leaks of the substance. It is necessary to secure general and local ventilation and an efficient exhaust system.

8.2.2 Individual protective measures

If an accident or extraordinary event causes increased exposure, employees must have access to personal protective measures (PPM) for the protection of airways, eyes, hands and skin, depending on the nature of the performed activities. Suitable protection for airways must also be available where it is not technically possible to ensure the adherence of exposition limits identified for the work environment or ensure that exposure via airways will not affect the health of people. During non-stop use of these measures during permanent work, it is necessary to include safety breaks if the nature of the PPM requires them. All PPM need to be kept in usable condition and damaged or contaminated ones need to be immediately replaced.

RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT (PPE):

(the specific type of protective equipment must be chosen according to the type of activity being carried out and the quantity and concentration of the dangerous substance / mixture at the workplace)

- *Respiratory protection:* protective mask compliant with EN 140 with a combined filter against organic vapours and dust, insulation breathing apparatus (use the mask in case of insufficient ventilation and / or local exhaustion and product leakage);
- *Eye/face protection:* protective chemical goggles compliant with EN 166;
- *Hand protection:* chemically resistant gloves tested according to EN 374, e.g. the following materials are suitable:

	<i>Glove material</i>	<i>Material thickness</i>	<i>Penetration time</i>
Regular work activities (staining risk)	nitrile	0.4 mm	480 minutes
Leak / accident liquidation	nitrile	0.4 mm	480 minutes

- *Protection of other body parts:* Antistatic, inflammable protective clothes, antistatic shoes;
- *Thermal risk:* Not relevant for the intended use, but Kevlar gloves should be used for loading and unloading hot product;
- *Other measures:* We recommend that the workplace is equipped with a safety shower and eye rinse facilities.

8.2.3 Environmental exposure controls

Avoid product leakage to the environment with all available means. See section 6.2.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

The information is taken from the registration dossier (RD) unless otherwise stated.

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CHARACTERISTIC	UNIT	VALUE	SOURCE	NOTE
Physical state		Solid substance	RD	at 20°C
Colour		White	RD	
Odour		Aromatic	RD	
Odour threshold	[ppm]	0.084	HSDB, UAKRON	RD does not specify
pH value		Irrelevant		RD does not specify
Melting point/freezing point	[°C]	78.9-80.3	RD	
Initial boiling point / boiling range	[°C]	218.1	RD	
Flash point		78.5	RD	
Evaporation rate	Ether=1	Much less than 1	HSDB	RD does not specify
Flammability (solid, gas)		Flammable	RD	
Upper flammability / explosive limits	[% obj]	5.9	UAKRON	RD does not specify
Lower flammability / explosive limits	[% obj]	0.9	UAKRON	RD does not specify
Vapour pressure	[Pa]	10.5	RD	at 25°C
Vapour density	Air=1	4.42	HSDB, UAKRON	RD does not specify
Relative density		1.085	RD	at 20°C
Solubility in water	[mg.l ⁻¹]	31.7	RD	at 25°C
Partition coefficient: n-octanol/water	[log Kow]	3.7	RD	at 25°C
Auto-ignition temperature	[°C]	540	RD	
Decomposition temperature		Does not decompose at normal usage temperatures		
Kinemamic viscosity	[mm ² .s ⁻¹]	1	RD	at 80°C
Explosive properties		Substance is not explosive		RD - DW
Oxidising properties		None		RD- DW

9.2 Other information

Not required.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No threat of dangerous reactions during the identified use as an intermediate product and during storage and manipulation under strictly controlled conditions.

10.2 Chemical stability

Chemically stable when used as identified intermediate product and when stored and handled in accordance with strictly controlled conditions at usual temperatures.

10.3 Possibility of hazardous reactions

No danger of chemical reaction when used as identified intermediate product and when stored and handled in accordance with strictly controlled conditions at usual temperatures.

10.4 Conditions to avoid

Ignition sources (including static energy), high temperature, sunshine.

10.5 Incompatible materials

Oxidizers.

10.6 Hazardous decomposition products

Carbon monoxide and carbon dioxide might be produced during heat decomposition at high temperatures.

SECTION 11: TOXIKOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Toxicological effects of the substance / mixture

HAZARD CLASS	DATA FROM REGISTRATION DOCUMENTATION		EVALUATION
	DESCRIPTION	RESULT	
Acute toxicity	Oral: Dermal: Inhalation:	LD ₅₀ > 2 000 mg/kg LD ₅₀ > 5 000 mg/kg LC ₅₀ (4h) > 20 mg/l	Meets the classification criteria
Skin corrosion/irritation		No adverse effects were found	Does not meet the classification criteria
Serious eye damage/irritation		No adverse effects were found	Does not meet the classification criteria
Sensitisation	OECD 406	No adverse effects were found	Does not meet the classification criteria
Germ cell mutagenicity	OECD 471	No adverse effects were found	Does not meet the classification criteria
Carcinogenicity	long-term animal testing	Adverse effects have been found on tested animals	Meets the classification criteria
Reproductive toxicity	OECD 414	No adverse reproductive or developmental effects have been observed	Does not meet the classification criteria
STOT-single exposure		No acute toxic effects have been found in acute toxicity tests	Does not meet the classification criteria
STOT-repeated exposure	OECD 408 OECD 411	No toxic effects have been found on repeated exposure	Does not meet the classification criteria
Aspiration hazard		At 40°C the product is not liquid	Does not meet the classification criteria

11.1.2 Information on likely routes of exposure

There is no danger of exposure for identified use as an intermediate product and when stored and handled in compliance with strictly controlled conditions. Inhalation and skin contact might be a significant way of exposure during emergency events and accidents.

11.1.3 Delayed and immediate effects as well as chronic effects from short and long-term exposure

Symptoms and effects depend on the size of the exposure dose. Inhalation of the product irritates the respiratory tract and may cause headaches, vomiting, increased sweating, confusion or apathy. Ingestion leads to irritation of the gastrointestinal tract and induce vomiting and diarrhoea. It may cause appearance of tremors, convulsions and respiratory paralysis. Irritated eyes become red, sore, leads to blurred vision and severe irritation leads to damage to the cornea, or to the formation of cataracts. Skin contact may contribute to the emergence of dermatitis (skin diseases). It absorbs through intact skin as well.

The substance is suspected that it could cause cancer. It causes haemolysis (breakdown of red blood cells), which is accompanied by anaemia and leukocytosis (increased number of white blood cells), may also damage the functioning of the liver. These disorders are manifested by fatigue, loss of appetite, nervousness, fatigue, dizziness and pronounced paleness.

Handling the product in hot state may cause burns.

11.1.4 Interactive effects

There are no interactions for identified use.

11.1.5 Toxicokinetics

After exposure, the product is rapidly metabolized and excreted in the form of metabolites in urine.

11.1.6 Other information

In accordance with Article 18 (3) of Regulation (EC) No 1907/2006 REACH only information corresponding to Annex VII of this Regulation are stated for transported isolated intermediate products above 100 t/year. Tests included in Annex VIII to X do not need to be stated.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Water environment	Fish	LC ₅₀ (96h) = 0.9 mg/l	freshwater fish
		LC ₅₀ (96h) = 2.4 mg/l	sea fish
		NOEC (40d) = 0.37 mg/l	Oncorhynchus kisutch
	Invertebrates	EC ₅₀ (48h) = 2.16 mg/l	
		NOEC (125d) = 0.6 mg/l	Daphnia pulex
	Algae	ErC ₅₀ (4h) = 2.96 mg/l	freshwater alga
ErC ₅₀ (72h) = 0.410 mg/l		sea alga	
Terrestrial environment	Soil organisms	EC ₅₀ (48h) (earthworms) = 4.67 mg/kg	Eisenia fetida
Microbiological activity (STP)	Activated sludge	IC ₅₀ (24h) = 29 mg/l (inhibition test of activated sludge nitrification)	

Note: An explanation of the meaning of the LC₅₀, EC₅₀ a ErC₅₀, IC₅₀, NOEC, abbreviations is in section 16.

12.2 Persistence and degradability

Biodegradation: a number of tests have been carried out in the world, finding of which differ markedly - from statements that the substance is substantially decomposable to the conclusion that naphthalene is biodegradable. It was concluded at the registration that the substance is inherently biodegradable in aerobic and denitrifying conditions.

Abiotic degradability: the product does not undergo hydrolysis.

12.3 Bioaccumulative potential

The substance has a low bioaccumulation potential.

12.4 Mobility in soil

The determined value of the adsorption coefficient K_{oc} ranges from 378 to 664. This means that it is possible to assume moderately strong adsorption of the substance on soils.

12.5 Results of PBT and vPvB assessment

In accordance with Art. 2 (8) of Regulation (EC) no. 1907/2006 REACH the isolated intermediates are not under obligation to have their chemical safety assessed and a chemical safety report under Art. 14 of the Regulation prepared and therefore not under obligation to have the PBT (P- persistent, bioaccumulative B-T-toxic) and vPvB (VP- very persistent, bioaccumulative vB-high) assessed either. Due to the fact that the product does not meet the criteria for toxicity (T) and thanks to the extent of the expected bioaccumulation it can be reasonably assumed that the substance does not meet the criteria for the PBT or vPvB substances.



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12.6 Other adverse effects

The product is within the meaning of Suppl. 1 of the Water Act no. 254/2001 Coll. Considered a hazardous substance.

12.7 Other information

According to Article 18 (3) of Regulation (EC) no. 1907/2006 REACH the only information reported on transported isolated intermediates above 1000 t/year is to be in accordance with Annex VII of the Regulation. Tests specified in Annexes VIII to X do not have to be carried out.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

If product used as an intermediate and during storage and handling under strictly controlled conditions there is no waste. If the remainder of the product is to be disposed (eg unused or leaked product), the valid European Union and national legislature as well as locally valid regulations have to be complied with.

Recommended waste classification pursuant to Regulation No. 93/2016 Coll. on Waste Catalogue:

13.1.1 Catalogue number

Catalogue number for products that have become waste:

07 01 04* Other organic solvents, washing liquids and mother liquors.

16 03 05* Organic waste containing dangerous substances.

Catalogue number for leaked product absorbed into an absorption agent (e.g. vapex):

15 02 02* Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances.

Catalogue number for soil contaminated by leaked product:

17 05 03* Soil and stones containing dangerous substances.

13.1.2 Recommended waste removal method

Deliver the unusable remainder of the product for disposal to a professionally qualified person with the appropriate authorization.

Recommended removal method: Energy utilization (burning)

Landfill and biodegradation in case of soil contaminated by leaked product.

13.1.3 Recommended methods of contaminated containers disposal

Not relevant. Product is not packed, it is transported through piping and railroad cisterns.

13.1.4 Measures for limiting exposure when handling waste

Do not flush leaked product during an emergency event or accident into sewage. Proceed in accordance with instructions provided in Section 6 („Accidental release measures“) and in Subsection 8.2 („Limiting exposure“) and adhere to all valid legal regulations for the protection of people, air and water.

WARNING: This information relates to the supplied, unused material. In the event that the waste becomes a material already used, it is the waste producer to assign him the code according to the sector and the process of use and determine the method of disposal.

SECTION 14: TRANSPORT INFORMATION

The listed information applies to road transport (ADR) and rail (RID) transport of dangerous goods:

(A) Transport of dangerous goods in automobile and railway tanks:

14.1 UN number: 2304

14.2 UN proper shipping name: NAPHTHALENE, MOLTEN

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SAFETY DATA SHEET

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- 14.3 Transport hazard class(es):** 4.1
14.4 Packing group: III
14.5 Environmental hazards: based on the criteria of the UN sample regulations, the product is harmful to the environment
14.6 Special precautions for user: none
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: the product is not designated for bulk transport pursuant to the International Maritime Organization (IMO) documents

14.8 Other information

- Hazard identification number: 44
 Classification code: F2
 Labels: 4.1 + symbol for environmental hazard (symbol: fish and tree) + symbol for heated substances



Note: the product is heated up to 100 ° C during filling / bottling therefore kevlar gloves and should be used and the tanks must be marked with a label for heated substances.

(B) Transport of dangerous goods in under-limit, limited and exempt quantities:

- 14.1 UN number:** 1334
14.2 UN proper shipping name: NAPHTHALENE, CRUDE
14.3 Transport hazard class(es): 4.1
14.4 Packing group: III
14.9 Environmental hazards: based on the criteria of the UN sample regulations, the product is harmful to the environment
14.5 Special precautions for user: none
14.10 Transport in bulk according to Annex II of Marpol and the IBC Code: the product is not designated for bulk transport pursuant to the International Maritime Organization (IMO) documents

14.6 Other information

- Hazard identification number: 40
 Classification code: F1
 Labels: 4.1 + symbol for environmental hazard (symbol: fish and tree)



SECTION 15: REGULATORY INFORMATION

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

15.1.1 European Union

Regulation of the European Parliament and Council (EC) No. 1907/2006 (REACH), as amended
 REGISTRATION (TITLE II OF THE REACH REGULATION)

the product has been registered as transported isolated intermediate product produced and used under strictly controlled conditions

AUTORISATION (TITLE VII OF THE REACH REGULATION)

isolated intermediate products are not subject to authorization obligation in accordance with Article 2(8)

RESTRICTION (TITLE VIII OF THE REACH REGULATION)

restrictions are met by determining identified uses

Regulation of the European Parliament and Council (EC) No. 1272/2008 (CLP), as amended

the product has been classified in compliance with the stated regulation, packaging and labeling obligations of dangerous chemicals only apply to the product if it is marketed in packaging subject to its labelling according to CLP regulation

Regulation of the European Parliament and Council (EC) No. 649/2012 on the export and import of dangerous chemicals, as amended

the product is not subject to special import or export restrictions

15.1.2 Czech Republic

Act No. 350/2011 Coll. on Chemical Substances and Chemical Mixtures, as amended

the product is not subject to the obligation of notification to the information system CHLAP („Chemical Substances and Preparations“)

Act No. 258/2000 Coll. on the Protection of Public Health, as amended

the product is not subject to the obligation to elaborate Rules for safe handling

Act No. 254/2001 Coll., on Water, as amended

Act No. 201/2012 Coll., on Air Protection, as amended

Act No. 185/2001 Coll., on Waste, as amended

Decree of Ministry of Environment no. 93/2016 Coll. laying down Waste Catalogue, as amended

Governmental decree no. 361/2007 Coll., laying down occupational health and safety conditions

the product has exposure limit; the product is not subject to the obligation to establish a controlled zone

Act no. 224/2015 Coll., on prevention of serious accidents caused by selected dangerous chemical substances or mixtures

15.2 Chemical safety assessment

Isolated intermediate products in accordance with Article 2 (8) of Regulation (EC) No 1907/2006 REACH are not subject to the obligation to test chemical safety and to process a report on chemical safety in the sense of Article 14 of this Regulation, and therefore no chemical safety report has been drawn up for this product by the manufacturer.

SECTION 16: OTHER INFORMATION

Changes adopted as a part of the revision process

- 09/10/2004: Revision (2): Editing information in the sections 3.2, 3.4, 4.3, 5.3, 6, 7, 11.1 a 14.1
- 10/26/2005: Revision (3): Editing information in the sections 2, 3.1, 3.2, 11.2, 12.5, 15.1, 15.2, 16
- 12/01/2006: Revision (4): Editing information in the sections 1, 2, 8, 13 and 16
- 03/01/2007: Revision (5): Editing information in the sections 1 and 16
- 06/01/2007: Revision (6): Complete revision of the document in relation to the Regulation (EC) No 1907/2006 of the European Parliament and of the Council
- 12/01/2009: Revision (7): Editing information in the sections 1, 2.1, 8.1, 15, 16 and the „Declaration“
- 12/01/2010: Revision (8): Editing information in the sections 1 (registration number), 2 (classification and labeling according to CLP), 14 and 16
- 08/01/2011: Revision (9): Complete revision of the document in relation to the updating of Annex II of Regulation (EC) No 1907/2006 REACH in accordance with Annex I of Commission Regulation (EU) No 453/2010
- 01/01/2012 / 9(1): Section 15.1.2 – updating legislation
- 01/06/2012 / 9(2): Section 1.1 - identifiers, Section 1.3 – update contact and Section 16 – abbreviations
- 05/31/2015 / 9(3): Section 1 (contact information), Section 2, Section 15.1 (update of legal regulations) and 16 (text deletion)

NAPHTHALENE CONCENTRATE

SAFETY DATA SHEET

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

Valid Issue: 02/01/2018 – version 10(0)

Revision: 08/01/2011 – 9th issue
replaces: 12/01/2010 - 8th issue
issued on: 07/16/2004

- 11/01/2016 / 9(4): Section 1 (contact information), Section 14 and 15 (editing in accordance with Regulation (EC) no. 830/2015), Section 15 (legislation update)
- 02/01/2018: Revision (10): Unification of SDS format after the ČeR merger into UNIPETROL RPA, including the editing of data in sections 1, 8, 9, 11, 12, 13 15 and 16, classification update

Acronyms and abbreviations used in the text

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS	Registration number assigned to the substance by the Chemical Abstracts Service of the American Chemical Society
CLP	EU Directive No. 1272/2008 on Classification, Labeling and Packaging of chemical substances and mixtures, which is implemented into the European legislature by the means of GHS (United Nations' Globally harmonized System) for classifying and labeling chemical substances
CMR	Carcinogenic, mutagenic or toxic for reproduction
ČSN EN (ISO)	European standard incorporated into the Czech technical standards
CSR	Chemical Safety Report
DMEL	Derived minimal effect level - an exposure level that corresponds to a low and possibly theoretical risk, which should be considered as an acceptable risk (for thresholdless effects, i.e. there is no exposure level without effect)
DNEL	Derived no-effect level - level of exposure derived from toxicological data that does not produce any adverse effects on human health
DW	Data waiving
EC ₅₀	Effective concentration EC ₅₀ is the concentration of substance that causes immobilization of 50% of individuals
ErC ₅₀	Effective concentration EC ₅₀ is the concentration of substance that causes 50 % decrease of Algea growth
ECHA	European Chemicals Agency
ES	Official number of the chemical substance in the European Union: EINECS from the European Inventory of Existing Commercial Substances, or ELINCS from the European List of Notified Chemical Substances, or NLP from the No Longer Polymer list
HSDB	Hazardous Substances Data Bank
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
IC ₅₀	Inhibition concentration IC ₅₀ that causes inhibition of 50% of individuals
ICAO	International Civil Aviation Organization
ICE	"Intervention in Chemical Transport Emergencies" system providing both professional and practical assistance in dealing with emergency situations related to the transport and storage of hazardous chemicals
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organisation
ISO	International Organization for Standardization
LC ₅₀ /LD ₅₀	Lethal concentration/level is the concentration/level of substance that causes mortality of 50 % individuals
LOEC/LOEL	Lowest Observed Effect Concentration/Level
log K _{ow}	Logarithm of distribution coefficient n-octanol/water
MARPOL	International convention on preventing boat pollution, as amended by the 1978 protocol
nf	Not feasible
NOAEC/NOAEL	No Observed Adverse Effect Concentration/No Observed Adverse Effect Level
NOEC/NOEL	No Observed Effect Concentration/No Observed Effect Level
NPK-P	The highest permitted concentration of the chemical substance in the air (the concentration of the substance that a worker may be exposed to for a maximum of 15 minutes but which must never be exceeded)

NAPHTHALENE CONCENTRATE

SAFETY DATA SHEET

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

Valid Issue: 02/01/2018 – version 10(0)

Revision: 08/01/2011 – 9th issue
replaces: 12/01/2010 - 8th issue
issued on: 07/16/2004

OECD	Organization for Economic Co-operation and Development
OOP	Recommended personal protective aids
OSN	United Nations
(Q)SAR	Quantitative Structure-Activity Relationship
PBT, vPvB	Persistent, bioaccumulative and toxic; high persistent and high bioaccumulative
PEL	Permitted exposure limit of the chemical substance in the air (the exposure value that an employee may be exposed to during the entire working shift (8 hours), without endangering his health during lifetime occupational exposure)
PNEC	Predicted No Effect Concentration
REACH	EU Directive No. 1907/2006 on Registration, Evaluation and Authorization of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STOT	Specific Target Organ Toxicity
STP	Sewage treatment plant
su	Scientifically Unjustified
TRINS	Transport Information and Accident System of the Czech Republic, providing professional and practical assistance in dealing with emergency situations related to transport and storage of hazardous chemical substances, included in ICE
UACRON	Chemical database (The University of Akron).
UN číslo	The four-digit identification number of the substance or object identifying hazardous material in international transport
UVCB	Substances of Unknown or Variable composition, Complex reaction products or Biological materials

Data sources used for preparing the material safety sheet

Annexes I, IV, VI and VII to Regulation (EC) No. 1272/2008 CLP, as amended

Principles for providing first aid upon being exposed to chemical substances (doc. MUDr. Daniela Pelclová and collective)

Substance registration documentation pursuant to Regulation (EC) No. 1907/2006 REACH

Decision of the European Chemicals Agency (ECHA) No. SUB-D-2114118349-48-01/F on registration pursuant to Directive (EC) No. 1907/2006 REACH

Research data sources (Hazardous Substances Data Bank HSDB, University of Akron Chemical UAKRON, Gestic Hygienic limits)

Full text of H-/ EUH-sentences and abbreviations of hazard classes stated in Section 2 and/or 3

H 228	Flammable solid.
H 302	Harmful if swallowed.
H 351	Suspected of causing cancer.
H 400	Very toxic to aquatic life.
H 410	Very toxic to aquatic life with long lasting effects.
Acute Tox.	Acute toxicity
Aquatic Acute.	Hazardous to the aquatic environment, category Acute toxicity
Aquatic Chronic	Hazardous to the aquatic environment, category Chronic toxicity
Carc.	Carcinogenicity
Flam. Solid	Flammable solid

Training instructions

Persons handling the product must be advised of the risks involved in handling the product and the health and environmental protection requirements (see applicable provisions of the Labor Code).

Access to information

Pursuant to Article 35 of Directive (EC) No. 1907/2006 REACH, every employer is obliged to allow access to the information stated on the given material safety sheet to all workers who use this product or are exposed to its impacts while working, and also to representatives of these workers.

NAPHTHALENE CONCENTRATE

SAFETY DATA SHEET

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

Valid Issue: 02/01/2018 – version 10(0)

Revision: 08/01/2011 – 9th issue
replaces: 12/01/2010 - 8th issue
issued on: 07/16/2004

Strictly controlled conditions

These are technological processes and working conditions which ensure that, during the whole service life of the intermediate product (i.e. from its production until its transformation to another substance), emissions into the environment and exposure of employees are minimized. For intermediate products isolated on the spot, these conditions are defined in article 18(4) of EC Regulation No 1907/2006 REACH:

- substance is strictly stored under controlled conditions by technical measures during its whole service life,
- process and control technologies are used for reducing emissions and exposure,
- only appropriately trained and entitled staff can manipulate the substance,
- activities such as cleaning and rinsing are performed before opening and entering the technological system during cleaning, maintenance or inspections,
- in case of an accident and when waste is created, process and control technologies are used to reduce emissions and exposure when cleaning the substance or during the cleaning and maintenance procedures,
- procedures for manipulating the substance are appropriately documented and strictly monitored by the operator.

Occupational exposure limit values for EU countries (see point 8.1.1)




data for naphthalene (number CAS 91-20-3)

	8-hour limit [mg.m ⁻³]	Short-term limit [mg.m ⁻³]
European Union (Regulation No. 2000/39/EC)	50	not specified

8-hour limit: Measured or calculated in relation to the 8-hour reference period as a timely weighted average

Short-term limit: Exposure limit value, which shall not be exceeded and which corresponds to a 15-minute period

Emergency telephone number for EU countries (see subsection 1.4)

National Centers (NON STOP)		TOXICOLOGY (first aid information)	ICE (information from SDS)	
Belgium		+32/70245245	Belintra	+32/35699232
Bulgaria		+359/29154378		
Croatia		+385/12348342		
Czech Republic		+420/224-919293; 915402	TRINS	+420/47 6163111; 6163267
Denmark		+45/82121212	PIBF/RVK	+45/45906000
Estonia		+372/6269379		
Finland		+358/9471977		
France		+33/(0)140054848	Transaid	+33/298331010
Ireland		+353/18092566		
Italy		+39/063054343	SET	+39/0362512868
Cyprus		+357/1401		
Lithuania		+370/52362052		
Latvia		+371/67042473		
Luxembourg		+32/70245245 (viz Belgie)		
Hungary		+36/80201199	VERIK	+36/23552205
Malta		+356/21450000		
Germany		+49/3019240	TUIS	+49/6216043333
Netherlands		+31/302748888	TRC	+31/102468642
Poland		+48/226196654	SPOT	+48/243657032
Portugal		+351/808250143		
Austria		+43/14064343	TUIS	+49/6216043333
Greece		+30/2107793777		
Romania		+40/212106282		








NAPHTHALENE CONCENTRATE

SAFETY DATA SHEET

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

Valid Issue: 02/01/2018 – version 10(0)

Revision: 08/01/2011 – 9th issue
replaces: 12/01/2010 - 8th issue
issued on: 07/16/2004

National Centers (NON STOP)		TOXICOLOGY (first aid information)	ICE (information from SDS)	
Slovakia		+421/254774166	DINS	+421/317754112; 2771
Slovenia		+386/41635500		
Spain		+34/915620420	CERET	+34 915373 248; 238
Sweden		+46/(0)104566700	KEMIAKUTEN	+46/8337043; 170970
Great Britain		+44/8448920111	Chemsafe	+44/123 5836002; 5753363

Inspecting and verifying the content of the material safety sheet

Inspection and verification of the compliance of this document with the requirements of Directive (EC) No. 1907/2006 REACH and Directive (EC) No. 1272/2008 CLP was executed by an independent, professionally competent person - Ing. Oldřich Petira, CSc., authorized expert in the field of chemistry and the protection of the environment, specializing in industrial toxicology and chemical safety of the environment.

Prohlášení: The material safety sheet has been prepared in compliance with Directive (EC) No. 1907/2006 REACH. It includes data that are necessary for securing occupational health and safety and the protection of the environment. These data have been provided in good faith, correspond to the current state of knowledge and experience and are in accordance with our valid legal regulations. The data provided does not replace the quality specification and can not be considered as a guarantee of the suitability and usability of this product for a specific application. It is the responsibility of the product user to assess the accuracy of the information in a particular application where the product's properties can influence different factors. The consumer is responsible for compliance with the appropriate, regionally valid legal regulations.



NAPHTHALENE CONCENTRATE

SAFETY DATA SHEET

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

Valid Issue: 02/01/2018 – version 10(0)

Revision: 08/01/2011 – 9th issue
replaces: 12/01/2010 - 8th issue
issued on: 07/16/2004

ANNEX OF MATERIAL SAFETY DATA SHEET

EXPOSURE SCENARIOS ACCORDING TO ARTICLE 31 OF REGULATION (EC) NO 1907/2006 (REACH) OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

Exposure scenarios for isolated intermediate product used under strictly controlled conditions are not required.