SECTION 1. SUBSTANCE/MIXTURE AND COMPANY/PLANT IDENTIFICATION

1.1. Product identifier

Trade name: **Unleaded petrol**

Alternative names: Natural, Normal, Super, SuperPlus, BA-91, BA-95, BA-98
Petrol with ethanol up to 5% V/V (E5),
Petrol with ethanol up to 10 % V/V (E10)
Petrol with no bioethanol (E0)

UFI code: W300-A06S-R003-GY26 (registered to PCN)

1.2. Designated use of the substance or mixture and its unrecommended uses

1.2.1. Designated use

Unleaded car gasolines are mainly used as motor fuels for spark-ignition combustion engines. Car gasolines can be used only in compliance with the given operation documentation and for the purposes approved in compliance with the valid legislature.

1.2.2. Unrecommended uses

Car gasolines should not be used for vehicles operated at enclosed worksites, or as cleaning products, for lighting, heating or fire ignition.

1.3. Detailed information about the safety sheet supplier

1.3.1. Business name and identification number

ORLEN Unipetrol RPA s.r.o., Záluží 1, 436 70 Litvínov, Czech Republic

Business Identification Number: 275 97 075
☎: 420 476 161 111
fax: 420 476 619 553
unipetrolrpa@orlenunipetrol.cz
www.orlenunipetrolrpa.cz

1.3.2. Business location

	Litvínov Refinery	**Kralupy Refinery**
	Záluží 1 436 01 Litvínov	O. Wichterleho 809 278 01 Kralupy n/Vlt.
tel.:	+420 476 163 567	+420 315 718 500
fax:	+420 476 165 086	+420 315 718 640

1.3.3. Email address of the technically competent persons who is responsible for the safety sheet:

reach.unirpa@orlenunipetrol.cz

1.4. Emergency phone number

- Controlroom of ORLEN 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
- Transportation information and accident system (TRINS) ☎:+420 476 163 111 (NON STOP)

Note: Emergency phone numbers for the EU countries are included is section 16

SECTION 2. HAZARD IDENTIFICATION

2.1. Substance or mixture classification

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

EXTREMELY FLAMMABLE LIQUID AND VAPORS, CATEGORY 1; H224	**Flam. liq. 1, H224**
INHALATION HAZARD, CATEGORY 1; H304	**Asp. Tox. 1, H304**
SKIN CORROSION/IRRITATION, CATEGORY 2; H315	**Skin irit. 2 , H315**
TOXIC FOR REPRODUCTION, CATEGORY 2; H361	**Repr. 2, H361**
MUTAGENICITY IN REPRODUCTIVE CELLS, CATEGORY 1B; H340	**Muta. 1B, H340**
CARCINOGENICITY, CATEGORY 1B; H350	**Carc. 1B, H350**
TOXICITY FOR SPECIFIC TARGET ORGANS AFTER SINGLE EXPOSURE, CATEGORY 3; H336	**STOT Single Exp. 3, H336**
TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS, CATEGORY 2; H411	**Aquatic Chronic 2, H411, GHS09**

Notice: The full text of the H-statements marked with a code is given in Section 2.2.

2.2. Marking elements

product identifiers		**UNLEADED CAR GASOLINE** NATURAL, NORMAL, SUPER, SUPERPLUS, BA-91, BA-95, BA-98 index number:
warning hazard symbol		
signal word		HAZARD
H-sentences (standard hazard sentences)	H224 H304 H315 H336 H340 H350 H361 H411	Extremely flammable liquid and vapors May be fatal if swallowed and enters airways Causes skin irritation. May cause drowsiness or dizziness. May cause genetic defects May cause cancer Suspected of damaging fertility or the unborn child Toxic to aquatic life with long lasting effects.
P-instructions (safe handling instructions)	P201 P260 P273 P281 P308+P313 P501	Obtain special instructions before use. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid release to the environment. Use personal protective equipment as required. IF exposed or concerned: Get medical advice/attention. Dispose of contents/container in compliance with the valid legislature
General instructions for placing the product on the consumer market		P101 Should a medical assistance be necessary, have the corresponding product package or label available P102 Keep out of reach of children

P103	Read the information on the label prior to using the product

ORLEN Unipetrol RPA s.r.o.
Záluží 1, 436 70 Litvínov, Czech Republic
☎: +420 476 161 111, +420 476 163 111

2.3. Other hazards

Information if a given substance or mixture complies with the criteria set for PBT or vPvB substances is included in subsection 12.5.

Unleaded car gasolines are complex mixtures of hydrocarbons that boil within the range of approximately 30 and 210 °C. They contain aromatic carbohydrates of up to 35% V/V, and benzene of up to 1% V/V. The content of toluene and n-hexane can exceed 5% V/V. Unleaded car gasolines can also include other components, such as various oxygenic compounds of suitable characteristics in a quantity specified by the valid legislature, with the stipulation that the overall content of oxygen must not exceed 3.7% m/m.

Gasolines are harmful to health - they can damage lungs due to their low viscosity. Gasoline also locally degreases and irritates skin. Its vapors can have narcotic effects, can cause headaches, nausea, eye and airways irritation. Gasoline vapors form an explosive mixture with the air. The product can accumulate static electricity. The product has long-term, harmful impacts on the environment.

None of the components of the mixture (substance) is included in the Candidate List under Article 59 (1) of the REACH due to endocrine disrupting properties.
The meaning of abbreviations used in this section is given in Section 16.

SECTION 3. COMPOSITION / INFORMATION ABOUT INDIVIDUAL COMPONENTS

3.1. Substances

It is a mixture of substances

3.2. Mixtures

NAME	*REGISTRATION NUMBER INDEX NUMBER*	*CAS NUMBER ES NUMBER*	*CONTENT [% OF weight]*	*CLASSIFICATION CLP*
Petrol; low boiling point petrol fraction - not specified	01-2119471335-39-0090 649-378-00-4	86290-81-5 289-220-8	≥77	Flam. liq. 1, H224, GHS02, Dgr Asp. Tox. 1, H304, GHS08, Dgr Skin irit. 2 , H315, GHS 07, Wng Repr. 2, H361, GHS08, Wng Muta. 1B, H340, GHS08, Dgr Carc. 1B, H350, GHS08, Dgr STOT Single Exp. 3, H336, GHS07, Wng Aquatic Chronic 2, H411, GHS09
Methyl tert-butyl ether (MTBE)	01-2119452786-27-0031 -	1634-04-4 216-653-1	0 - 22	Flam. liq. 2, H225, GHS02, Dgr Skin irritation Cat. 2, H315, GHS07, Wng
2-ethoxy-2-methylpropane (ETBE)	01-2119452785-29-0025 -	637-92-3 211-309-7	0 - 22	Flam. liq. 2, H225, GHS02, Dgr STOT Single exp. 3, H336, GHS07, Wng
Ethanol	01-2119457610-43-xxxx 603-002-00-5	64-17-5 200-578-6	0 - 10	Flam. liq. 2, H225, GHS02, Dgr Eye irritation Cat. 2, H319, GHS07, Wng

NOTE 1: In order to improve its usable characteristics, car gasoline can also include various additives - ingredients added with the objective to modify the given usable characteristics, such as explosion-prevention additives, lubrication additives, corrosion inhibitors, detergents, etc., in concentrations

that do not exceed 0.1% (m/m).

NOTE 2: None of the components of the mixture contain nanoform

SECTION 4. FIRST AID INSTRUCTIONS

4.1. First aid description

4.1.1. General instructions

When administering first aid, observe your own safety.

Call for the ambulance (☎155 Czech Republic, ☎120 EU) and observe the provided instructions until its arrival. Secure vitally important functions of the victim. If the victim is not breathing normally even when you tilt his/her head back, conduct resuscitation by pressing his/her chest approximately 5 cm deep with a frequency of 100-120 pushes per minute. If you are trained in rescue breathing, execute 2 inhalations after every 30 pushes of the chest. Do not interrupt the heart massage until the ambulance personnel arrives.

Do not give anything to consume to people who are unconscious or who are experiencing cramps. Put them in the recovery position.

4.1.2. Upon inhalation

Transport the victim to fresh air, do not let him/her become cold and seek medical assistance.

4.1.3. Upon contact with skin

Remove the contaminated clothes and footwear. Thoroughly washed the affected spots with water (ideally lukewarm) and soap. Should the irritation symptoms persist, seek professional medial assistance.

Do not remove the product upon being burned. Cover the affected location with a sterile gauze (or clean fabric) and immediately seek professional medical assistance.

4.1.4. If the products hits eyes

Immediately rinse the eyes by stream of flowing water, open the eyelids (even by force, if necessary); should the victim wear contact lenses, remove them immediately. Seek medical treatment.

4.1.5. Upon ingestion

NEVER INDUCE VOMITING! If the victim is vomiting on his/her own, hold his/her head below his/her hips, thus preventing inhalation of the vomit. Seek medical assistance as fast as possible.

4.2. The most important acute and delayed symptoms and effects

Depending on the exposure dose, the substance can cause headache, nausea, dizziness, breathing difficulties or even breathing stoppages, cramps and unconsciousness. Ingestion can cause vomiting and, as a result of that, the vomit can get into lungs (aspiration) and pulmonary edema can occur (chemical pneumonia), which can result in death. Direct contact with eyes or skin can cause their temporary irritation. Longer exposures of skin to the substance can degrease it.

4.3. Instructions related to immediate medical assistance and special treatment

Should the product hit eyes or enter airways, medical assistance has to be sought immediately.

SECTION 5. FIRE EXTINGUISHING MEASURES

5.1. Fire extinguishers

Suitable fire extinguishers: Air fire extinguishing foam, fire extinguishing powder, CO2.

Unsuitable fire extinguishers: direct water stream.

Extinguishing small fires: powder or foam fire extinguishers, dry sand or fire extinguishing foam.

5.2. Special hazards related to the given substance or mixture

Vapors are heavier than the air and they thus accumulate and spread by the ground. If they leak, they can backfire and subsequently explode and/or cause fire even relatively far from the given leak source. This risk is particularly present below the terrain level and in enclosed areas. Their burning can create toxic and irritating smokes that contain carbon monoxide and unburned carbohydrates.

5.3. Instructions for fire fighters

Limit penetration of the fire extinguishing liquid polluted with the given substance to the sewerage system, surface and underground water and soil to a minimum.

Cool the tanks containing the product with water spray because they can explode due to heat.

Do not use foam and water simultaneously since water decomposes the foam.

Protection equipment for the fire fighters: fully protective clothing and insulation breathing apparatus.

SECTION 6. ACCIDENTAL LEAK MEASURES

6.1. People protection measures, protective equipment and emergency procedures

Seal the accident location and prevent access to the endangered area. Stay on the windward side. Leaks of this product can cause fires. That is why you need to remove all possible ignition sources. Do not smoke and do not handle open flame. If possible, ensure adequate ventilation of the enclosed areas. Prevent contact with the substance and its vapors. When rectifying the given extraordinary event/accident consequences, use all the recommended personal protection equipment (see Subsection 8.2). Evacuate all people from the endangered area in the case of larger accidents. If initiated, the substance vapors below the terrain level and in enclosed areas (including the sewerage system space) can explode.

6.2. Measures for the protection of the environment

Eliminate any further leaks of the substance and fence off the location. Prevent the substances from leaking into the sewerage system and surface and underground water by covering the sewerage system inlets. Prevent the substance from leaking to soil.

6.3. Methods and material for leak limitation and for cleaning

Leaks of this product can cause fire. That is why you should use lights and electric devices that are of a non-explosive design and non-sparking tools. The leaked product should be collected into a suitable, inflammable porous/absobrent material (such as sand, soil, bergmeal, vermiculite) and removed for liquidation in closed containers. Destroy the product in compliance with the valid legal regulations related to waste (see Section 13).

When the product leaks into water in a relatively high quantity, use catchment immersion walls and gather the product from the water surface using surface collectors (separators) or cover the leaked product using a sorbent and remove the saturated sorbent from the surface by racking or vacuuming. Consult experts prior to using dispersing agents.

6.4. References to other sections

For recommended personal protection aids, see Subsection 8.2 (“Limiting exposure”).

For recommended waste removal procedures, see Section 13 (“Removal instructions”).

SECTION 7. HANDLING AND STORAGE

7.1. Safe handling measures

Handle the substance as well as empty tanks (they can contain product residues) in well ventilated areas and comply with all fire protection measures (no smoking, not working with open flame, removing all possible ignition sources). Do not conduct activities, such as welding, cutting, grinding, etc., in the proximity of the (even empty) packages. Do not use compressed air for filling, emptying or other handling of the tanks. Eliminate static electricity discharges.

General hygienic measures: Observe the personal hygiene rules. Immediately take off polluted parts of your clothing. Do not smoke, drink or eat while working! Thoroughly wash your hands and uncovered parts of your body by water and soap and, if necessary, apply a suitable reparation cream after work and before eating. Do not bring polluted clothes, footwear and protection equipment to eating areas.

7.2. Safe storage conditions for substances and mixtures, including incompatible substances and mixtures

The warehouses have to comply with the given building fire safety requirements and the electric devices have to be in compliance with the valid regulations. Store them in cool, well ventilated areas with adequate exhaust systems outside of the reach of all heat and ignition sources. Storage packages have to be properly closed, marked and grounded. We recommend soft and stainless steel as a suitable package material. Do not store them nearby incompatible materials, such as oxidation agents (oxygen, air, etc.), or other flammable materials.

7.3. Specific final use

Car gasolines are mainly designed for being used as fuels for spark-ignition combustion engines. They should not be used for vehicles operated at enclosed worksites, or as cleaning products, for lighting, heating or fire ignition. Never pour the product into the sewerage system.

SECTION 8. LIMITING EXPOSURE / PERSONAL PROTECTION EQUIPMENT

8.1. Control parameters

8.1.1. Limit worksite exposure values

Government Directive No. 361/2007 Coll., which determines the occupational health protection condition, as amended, specifies the following acceptable exposure limits (PEL) and the highest acceptable concentrations (NPK-P) of chemical substances in the air in the Czech Republic:

Name	CAS number	PEL [mg.m^{-3}]	NPK-P [mg.m^{-3}]	Note
Gasolines (technical mixture of carbohydrates)	86290-81-5	400	1,000	

Note 1: The meaning of the PEL and NPK-P abbreviations can be found in Section 16.
Note 2: The limit exposure values for the worksites throughout the EU countries are stated in Section 16.

8.1.2. DNEL/DMEL values

DNEL values used for the evaluation:

DNEL (dermal exposure): 100 µg/kg/day
DNEL (exposure by inhalation): 928.57 µg/kg/day or 3.25 mg/m3
PNEC (secondary exposure, oral): 8.77 mg/kg

Note: The meaning of the DNEL and DMEL abbreviations can be found in Section 16.

8.1.3. PNEC values

PNEC (secondary exposure, oral): 8.77 mg/kg
Note: The meaning of the DNEL and DMEL abbreviations can be found in Section 16.

Deriving particular PNEC values based on experimental data acquired by testing the modified water fraction that contains dissolved/emulsified/suspended shares of the tested substance (WAF- "Water accommodated Fraction") is not suitable for UVCB substances of a carbohydrate type. The product environmental risk characteristics were thus determined using the statistic carbon HC5 extrapolation block method utilizing the PETROTOX v.3.05 model.

8.1.4. Recommended procedure for monitoring concentrations at work environments

Recommended procedure for monitoring concentrations at work environments: gas chromatography (GC) with a flame ionization detector (FID) or mass spectrometric detector (MS) pursuant to technical standards ČSN EN 689 and ČSN EN 482.

8.2. Limiting exposure

8.2.1. Technical protection measures for limiting exposure of people and of the environment

Protection against undesirable exposure of people and of the environment has to be ensured by maintaining a strict control over the substance utilizing technical means and procedural and control technologies that reduce emissions and subsequent exposure with the objective to prevent release of the vapors into free space, penetration of the substance in water environments and soil and possible exposure of people. Areas where the substance is handled or stored have to be furnished with impermeable floors and catchment basins for accidental leaks of the substance. Overall and local ventilation and effective exhaust are a must.

8.2.2. Individual protective measures

Should there be a risk of an increased exposure while handling the product or should the exposure increase, for example, as a result of an accident or an extraordinary event, the employees have to have available personal protection equipment (PPE) for the protection of their airways, eyes, hands and skin, which correspond to the character of the conducted activities. They have to be also equipped with a suitable protection of their airways when the used technical means cannot guarantee compliance with the exposure limits specified for the given work environment or when the exposure of their airways could endanger their health. When using the protective equipment continuously while working, appropriate safety breaks have to be included, provided the character of the given PPE requires it. All PPE has to be continuously maintained in a usable condition. Should it become damaged or polluted, it has to be replaced immediately.

RECOMMENDED PERSONAL PROTECTION EQUIPMENT (PPE):

(particular types of the protective equipment have to be chosen based on the type of the conducted activity and based on the quantity and concentration of the given hazardous substance/mixture at the worksite)

- ***airways protection:*** protective mask that complies with EN 143 with a filter that is effective against the effects of organic vapors for areas with insufficient ventilation and/or local exhaust system; insulation breathing apparatus for rectifying the consequences of extraordinary events/accidents;
- ***eyes / face protection:*** protective goggles that comply with EN 166;
- ***hands protection:*** chemically resistant gloves tested pursuant to EN 374; the following are some of the suitable materials:

	glove material	*layer thickness*	*penetration time*
common work activities (staining possibility)	natural latex	1 mm	120 minutes
leak / accident repair	nitrile	0.4 mm	480 minutes

- ***protection of other body parts:*** antistatic and inflammable clothes, antistatic footwear;
- ***heat hazard:*** irrelevant when used as specified.
- ***other measures:*** we recommend to furnish the worksite with a safety shower and an eye rinsing mechanism.

8.2.3. Limiting the exposure of the environment

Prev

ent product leaks to the environment by employing all available means. See Section 6.2.

SECTION 9. PHYSICAL AND CHEMICAL CHARACTERISTICS

9.1. Information about the basic physical and chemical characteristics

The information has been adopted from the corresponding registration documentation, unless stated otherwise.
The information is taken from the registration dossier for petrol, unless otherwise stated.

attribute	unit	value	source/method	note
state of matter		liquid	CSR	at 20°C
colour		colorless, slightly yellowish to yellow or with greenish opalescence	CSR	
odour		typical gasoline	CSR	
melting point / freezing point	[°C]	<-40	CSR	
initial boiling point / boiling point range	[°C]	< 35/210	CSR	EN 228
flammability		the mixture is flammable	CSR	see flash point of the mixture
upper explosive limit	%	8	CSR	
lower explosive limit	%	0,6	CSR	
flash point	[°C]	<-20	CSR	
spontaneous ignition temperature	[°C]	cca 340	CSR	
decomposition temperature		It does not decompose up to 210 ° C	see boiling range	CSR does not state
pH		not relevant (non-polar substances)		CSR does not state
viscosity kinematic	[$mm^2.s^{-1}$]	<1,0	CSR	37,8°C

attribute	unit	value	source/method	note
solubility in water	[mg.l^{-1}]	slight	CSR	Gasoline is a hydrocarbon UVCB substance. Standard water solubility tests are for individual substances and are not suitable for this complex substance.
relative density	water=1	0,715 – 0,775	CSR	at 15°C
distributive coefficient: n-octanol/water	[log Koc]	1,71 – < 4,75	CSR	
vapour pressure	[kPa]	1,71 – < 4,75	CSR	
relative vapour density	air=1	3,5	American Petroleum Institute (API)	CSR does not state
particle characteristics		-		not applicable - it is a liquid

Poznámka: Údaje odkazující na CSR jsou údaje odkazující na CSR základní složky směsi (benzín - 289-220-8).

9.2. Other information

9.2.1. Information concerning physical hazard classes
Extremely flammable liquid

9.2.2. Other safety characteristics
Not available.

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

The product is stable under normal conditions.

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous chemical reactions

It can release carbon monoxide when burning in an environment with a lack of oxygen.

10.4. Conditions that have to be avoided

Concentrations within the explosion limits, presence of ignition sources, contact with open flame.

10.5. Incompatible materials

Oxidation agents.

10.6. Hazardous disintegration products

None under normal conditions; carbon monoxide and soot can be created when burning in an environment with a lack of oxygen.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information about toxicological effects

11.1.1. Toxicological effects of the substance/mixture

HAZARD CLASS	DATA FROM THE REGISTRATION DOCUMENTATION		EVALUATION
	DESCRIPTION	RESULT	
Acute toxicity	oral (OECD 401): inhalation (OECD 403): dermal (OECD 404):	LD_{50} > 5,000 mg/kg LC_{50} > 5,610 mg/m^3 LD_{50} > 2,000 mg/kg	it does not comply with the classification criteria
Causticity / irritant effect for skin	product tests and tests of the included components (OECD 404)	2.56	it complies with the classification criteria
Serious damage / eye irritation	product tests and tests of the included components (OECD 405)	0.05	it does not comply with the classification criteria
Sensibility	product tests and tests of the included components (OECD 406)	the product and its components do not cause allergic reactions	it does not comply with the classification criteria
Mutagenicity in reproductive cells	OECD 476	the test results do not support gasoline classification for genotoxic potential pursuant to classification CLP EU (EC No. 1272/2008), however, a regulation requirement exists that requires gasoline to be classified as genotoxic material if it contains > 0.1% of benzene.	it complies with the classification criteria
Carcinogenicity	tests	the data do not support gasoline classification for carcinogenic potential pursuant to classification CLP EU (EC No. 1272/2008), however, a regulation requirement exists that requires gasoline to be classified as carcinogenic material if it contains > 0.1% of benzene.	it complies with the classification criteria
Toxic for reproduction	1/ fertility: 2/ prenatal development toxicity:	although the data do not support gasoline classification for reproduction toxicity potential pursuant to classification CLP EU (EC No. 1272/2008), a regulation	the product that contains more than 3% of toluene complies with the classification

HAZARD CLASS	DATA FROM THE REGISTRATION DOCUMENTATION		EVALUATION
	DESCRIPTION	RESULT	
		requirement exists that requires gasoline to be classified as toxic if it contains > 3% of toluene and/or n-hexane.	criteria
STOT – one-time exposure	acute toxicity tests (oral, dermal, inhalation)	no toxic effects have been determined during the tests	it does not comply with the classification criteria
STOT – repeated exposure	1/ oral: 2/ inhalation: 3/ dermal	Dermal studies suggest that gasoline has a very low system toxicity ability upon dermal application. Oral and inhalation studies have not showed any undesirable effects.	it does not comply with the classification criteria
Inhalation hazard		when the product is ingested or when it enters the airways while its kinematic viscosity is below 20.5 mm^2/s (40 °C), it damages lungs and can cause death	it complies with the classification criteria

11.1.2. Information about probable exposure ways

The exposure can occur by inhalation, accidental ingestion or penetration of individual components through skin.

11.1.3. Symptoms and effects (acute, delayed and chronic after short-term as well as long-term exposure)

Depending on the exposure dose, the substance can cause headaches, sore throat, cough, breathing difficulties, chest pressure, disturbances of the central nervous system, nausea, sleepiness and dizziness. The related difficulties can be demonstrated by belly cramps, spontaneous vomiting or diarrhea. Direct contact with eyes or skin can cause temporary irritation manifested by reddening or swelling of the affected spot, or eye tearing, reddening and swelling. Longer exposures of skin to the substance can degrease it and cracks can appear. The substance can cause hereditary genetic changes and it can also cause or support the origin of cancer in humans. When handling the hot (heated) product, you can get burned, which is usually manifested by hurting and reddening of your skin or, in more serious cases, by blisters.

11.1.4. Interactive effects

No interactions occur if the product is used appropriately.

11.2. Information on other hazards

None of the components of the mixture is not included in the Candidate List under Article 59 (1) of the REACH (due to endocrine disrupting properties or for any other reason).

SECTION 12. ENVIRONMENTAL INFORMATION

12.1. Toxicity

Water environment	fish	LL_{50} (96 h, fish) = 8.2 mg/l	
	invertebrates	EL_{50} (48 h, invertebrates) = 4.5 mg/l	
	seaweed	EL_{50} (72 h, seaweed) = 3.1 mg/l	
Microbiological activity (waste water treatment	activated sludge	LL_{50} (72 h, microorganisms) = 15.41mg/l	

plant)		

Note: Significance of the LC_{50}, EL_{50} and LL_{50} abbreviations is included in Section 16.

12.2. Persistence and degradability

The assessment of the representative carbohydrate structures indicates some structures that can comply with the P or vP criteria.

Biodegradability pursuant to CEC approximately 50 – 60%.
Because of the complex composition of this substance, its potential biodegradability cannot be estimated using quantitative models of the relations between the structure and biodegradability.

12.3. Bioaccumulation potential

The assessment of the representative carbohydrate structures indicates some structures that can comply with the B criteria, but none that can comply with the vB criteria.

12.4. Mobility in the soil

Log Koc values were calculated for individual product components. They range between 1.71 and 4.75.

12.5. PBT and vPvB assessment results

It is not suitable to compare this UVCB substance of a hydrocarbon type with the criteria pursuant to Appendix XIII to Directive (EC) No. 1907/2006 REACH, as a whole. That is why individual components were assessed with the conclusion that the product complies with the T criterion, however it complies neither with the persistence and bioaccumulation criteria, nor with the high persistence and high bioaccumulation criteria pursuant to Appendix XIII to Directive (EC) No. 1907/2006 REACH. That is the reason why the product is not identified as a PBT substance (P-persistent, B-bioaccumulative, T-toxic) or vPvB substance (vP-highly persistent, vB-highly bioaccumulative).

12.6. Endocrine disrupting properties

None of the components of the mixture is included in the Candidate List under Article 59 (1) of the REACH due to endocrine disrupting properties.

12.7. Other negative impacts

It creates a homogenous layer on water surface, which prevents oxygen access. Pursuant to Appendix 1 to Water Act No. 254/2001 Coll., the product is considered hazardous and harmful substance.
It does not contain ozone-harming substances pursuant to the Montreal Protocol and its Copenhagen Amendment.

SECTION 13. REMOVAL INSTRUCTIONS

13.1. Waste management methods

When product residues need to be removed (for example, unused or leaked product), the valid European Union legislature, national legislature and valid local regulations have to be observed. Hand the waste over for removal to an appropriately qualified person with the appropriate authorization.

Recommended waste classification pursuant to Regulation No. 93/2016 Coll. (Waste Catalogue)

13.1.1. Catalogue number

Catalogue number for the product that has become waste:

13 07 02* Motor gasoline

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

16 03 05* Organic waste containing dangerous substances

Catalogue number for the leaked product absorbed by an absorption agent (such as 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 polluted with the leaked product:

17 05 03* Soil and stones containing dangerous substances.

13.1.2. Recommended waste removal method

Hand the unused product residues over for removal to an appropriately qualified person with the appropriate authorization. Recommended removal method: Energy utilization (combustion).

13.1.3. Substance liquidation methods

Waste and unused residues are liquidated in compliance with the valid waste legislature, usually by incineration in incineration plants designed for this purpose. Disposal to dump sites is not suitable.

13.1.4. Contaminated packaging liquidation methods

Unleaded car gasoline is usually supplied in railroad cars or road tankers. Decontamination and liquidation of such packaging material is governed by the ADR/RID regulations.

NOTE: the stated information applies to the delivered, still unused material. Should an already used material become waste, it is up to the waste originator to assign a code to it pursuant to the given field and usage process and to determine its liquidation method.

SECTION 14. TRANSPORT INFORMATION

14.1. UN number or ID number

1203

14.2. Official (UN) transport name

GASOLINE

14.3. Transport hazard class/classes

3

14.4. Packaging group

II

14.5. Environmental hazard

ENDANGERING THE ENVIRONMENT

ENVIRONMENTALLY HAZARDOUS

14.6. Special safety measures for the users

None.

14.7. Maritime bulk transport according to IMO instruments

Irrelevant. The product is transported in railway tankers, road tankers or via pipelines.

14.8. Other information

Hazard number:	33
Classification code:	F1
Safety symbol:	3

SECTION 15. REGULATION INFORMATION

15.1. Regulations related to safety, health and the environment / specific legal regulations related to the given substance or mixture

15.1.1. European Union

EP and Council (EC) Directive No. 1907/2006 (REACH) as amended

REGISTRATION (HEAD II OF THE REACH DIRECTIVE):

the product components have been fully registered as the substance

APPROVAL PROCESS (HEAD VII OF THE REACH DIRECTIVE)

the product components are not listed on the list of substances included in Appendix XIV of Directive (EC) No. 1907/2006 REACH and the approval obligation thus does not apply to them

LIMITATIONS (HEAD VIII OF THE REACH DIRECTIVE):

the product must not be placed on the market for being sold to the public, with the exception of cosmetic products, medicines and fuels defined in more detail in record 28 of Appendix XVII of Directive (EC) No. 1907/2006 REACH

EP and Council (EC) Directive No. 1272/2008 (CLP), as amended

the product has been classified in compliance with the above stated directive; the obligations related to packaging and package marking of hazardous chemical substances apply to the product only if it is put on the market in packages that are subject to the marking obligation pursuant to Directive CLP

Regulation (EU) 2017/542 of the European Parliament and of the Council - Annex VIII. (CLP) - harmonized information on responding to health threats.

The required information on the hazardous mixture was provided via the ECHA Submission Portal - Poison Centers (PCN).

EP and Council (EC) Directive No. 649/2012 on exporting and importing hazardous chemical substances, as amended

the product is not subject to any special export or import limitations

15.1.2. Czech Republic

Act No. 350/2011 Coll. on chemical substances and chemical mixtures, as amended

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

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

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

Act No. 541/2020 Coll., on Waste, as amended

Regulation No. 93/2016 Coll., on the Waste Catalogue, as amended

Government Directive No. 361/2007 Coll., which determines occupational health protection conditions, as amended

Act No. 224/2015 Coll., on prevention of serious accidents caused by selected dangerous chemicals or chemical mixtures, as amended

15.2. Chemical safety assessment

The chemical safety assessment was conducted as a part of the substance registration process. The substance complies with the classification criteria for hazardous substances pursuant to Directive (EC) No. 1272/2008 CLP. Exposure assessment as well as the subsequent risk characterization step have been conducted.

SECTION 16. OTHER INFORMATION

Changes made during the revision

Changes in this version of the safety data sheet are indicated by a black and red vertical line to the left of the text.

24.4.2023 In section 9, the term “ignition point” was replaced by the term “flash point”.

Abbreviated words and abbreviations used in the text

ADR	European Agreement Concerning the International Carriage of Dangerous Goods by Road
CAS	Registration number assigned by the "Chemical Abstracts Service" of the "American Chemical Society"
CLP	Directive (EC) No. 1272/2008 on Classification, Labelling and Packaging of Chemical Substances and Mixtures, implemented into the European legislature by GHS (United Nations´ Globally Harmonized System)
CMR	Carcinogenic, mutagenic or toxic for reproduction
ČSN EN (ISO)	European standard incorporated into the system of the Czech technical standards
CSR	Chemical Safety Report
DMEL	Exposure level that corresponds to a low and possibly theoretical risk, which should be considered an acceptable risk (for threshold-less effects, i.e. no exposure level without an effect exists)
DNEL	Exposure level derived from toxicological data, during which no negative impacts on the health of people occur
DW	Data waiving
EC_{50}	Effect concentration that results in immobilization of 50% of individuals
ErC_{50}	Effect concentration that results in a 50% reduction of the seaweed growth speed
ECHA	European Chemicals Agency
EL_{50}	Effective loading speed that is necessary for a 50% immobilization
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 of substances
HSDB	Hazardous Substances Data Bank
IATA	International Air Transport Association
IBC	International regulation for the construction and equipment of boats that transport hazardous chemicals in bulk ("Intermediate Bulk Container")
IC_{50}	Inhibition concentration that results in inhibition of 50% of individuals
ICAO	International Civil Aviation Organization
ICE	"Intervention in Chemical Transport Emergencies" program
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organisation
ISO	International Organization for Standardization
LC_{50}/LD_{50}	Lethal concentration/level that results in death of 50% of individuals
LL_{50}	Introduction speed of the tested substance that results in a 50% mortality rate
LOEC/LOEL	Lowest Observed Effect Concentration/Level
log Koc	Logarithm for the partition coefficient of carbon and water in soil
log Kow	Logarithm for the n-octanol/water partition coefficient
MARPOL	International convention on preventing pollution from boats
nf	Not feasible

NOAEC/NOAEL	Highest "no observed adverse effect concentration/level"
NOEC/NOEL	Highest "no observed effect concentration/level"
NPK-P	Highest acceptable chemical substance concentration in the air (substance concentration that employees can be exposed for a maximum of 15 minutes; nevertheless, this concentration must never be exceeded)
OECD	Organization for Economic Co-operation and Development
PPA	Personal protective aids
UN	United Nations
(Q)SAR	Theoretical mathematic model, using of which can be used for determining the given substance characteristics based on the chemical substance structure and activity ("Quantitative Structure-Activity Relationship")
PBT, vPvB	Persistent, bioaccumulative and toxic, highly persistent and highly bioaccumulative
PEL	Acceptable exposure limit of a given chemical substance in the air (exposure value that employees can be exposed to during the entire shift time (8 hours) even all their lives without endangering their health)
PNEC	Estimated concentration, during which hazardous effects in the given environmental component do not occur
REACH	Directive (EC) No. 1907/2006 on the Registration, Evaluation and Authorisation of Chemicals
RID	Regulation Concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STOT	Specific Target Organ Toxicity
SU	Scientifically Unjustified
TRINS	Transportation information and accident system
UACRON	Chemical database (The University of Akron).
UN number	Four-digit substance or item identification number adopted from the UN ample regulations
UVCB	Substances of Unknown or Variable composition, Complex reaction products or Biological materials

Data sources used for preparing safety data sheets

Appendixes I, IV, VI and VII to Directive (EC) No. 1272/2008 CLP, as amended
First aid principles upon exposure to chemical substances (doc. MUDr. Daniela Pelclová and col.)
Registration documentation of the substances pursuant to Directive (EC) No. 1907/2006 REACH
Decision of the European Agency for Chemical Substances ECHA No. SUB-C-2114383158-42-01/F on the registration pursuant to Directive (EC) No. 1907/2006 REACH
Certification BA 91 lab.c. 10-24093
Reformulation record Winterspe1_2010_4_14_BA91&20T14&200414_1

The information evaluation method used to classify the mixture

The flammability of the mixture was assessed based on the measured flash point and boiling point range. Effects on health and the aquatic environment were assessed using the procedures set out in Annex I to the CLP Regulation for classification mixtures based on known information on the classification of the ingredients and the known content of the ingredients in the mixture.

Training instructions

People who handle the product have to be acquainted with the related handling risks and with the requirements related to the protection of health and of the environment (see the corresponding stipulations of

the Labor Code).

Access to information

Pursuant to Article 35 of Directive (EC) No. 1907/2006 REACH, all employers have to allow access to the information stated on the safety data sheets to all employees who use the given product or who are exposed to its effects while working, as well as to representatives of these employees.

Limit worksite exposure values for the EU countries (see Point 8.1.1)

data for unleaded car gasoline (CAS number 86290-81-5)

Name	Country	8-hour limit [mg.m^{-3}]	short-term limit [mg.m^{-3}]
Car gasoline	European Union (Regulation 2000/39/ES)	**no limit values for the given substances have been defined**	
	Hungary		
	Germany		
	Poland		

8-hour limit: *measured and calculated value in relation to an eight-hour reference period as a time-weighted average*
short-term limit: *exposure limit value, which should not be exceeded and which corresponds to 15 minutes*

Emergency phone numbers for the EU countries (see Section 1.4)

Národní centra (PCCS)		TELEFON	JAZYK	Instituce / Webová stránka/ Email
Belgie		☎+070245245	German	http://www.poisoncentre.be Centre Antipoisons, c/o Hôpital Militaire Reine Astrid Rue Bruyn 1, 1120 Bruxelles
Bulharsko		☎+359/29154411	Bulgarian	https://pirogov.eu/bg
Chorvatsko		☎+385/12348342	Croatian	https://www.imi.hr/en/jedinica/poison-control-centre Croatian Poison Control Centre / Centar za kontrolu otrovanja
ČR		☎+420/224-919293; 915402	Czech	http://www.tis-cz.cz Toxikologické informační středisko (TIS) Na bojišti 1, 120 00 Praha 2 e-mail: tis@vfn.cz
Dánsko		☎+45/82121212	Danish	https://www.bispebjerghospital.dk/giftlinien Giftlinjen at Bispebjerg Hospital
Estonsko		☎+372/7943794 / ☎+112	Estonian	https://www.16662.ee Poisoning Information Centre Häirekeskuse number: 112 Hotline: 16662
Finsko		☎+0800147111	Finnish	Finnish Poison Information Center
Francie – Orfila (INRS)		☎+33/0145425959	French	"Centres Antipoison et de Toxicovigilance (CapTv) Hôpital Fernand Widal" 200 rue du Faubourg Saint Denis 75010 PARIS viviane.damboise@lrb.aphp.fr
Francie - Angers		☎+33/241482121	French	http://www.centres-antipoison.net/angers/index.html
Francie - Bordeaux		☎+33/556964080	French	http://www.centres-antipoison.net/bordeaux/index.html
Francie - Lille		☎+33/0800595959	French	http://www.centres-antipoison.net/lille/index.html
Francie - Lyon		☎+33/472116911	French	http://www.centres-antipoison.net/lyon/index.html

Národní centra (PCCS)	TELEFON	JAZYK	Instituce / Webová stránka/ Email
Francie - Marseille	☎+33/491752525	French	http://www.centres-antipoison.net/marseille/index.html
Francie - Nancy	☎+33/383225050	French	http://www.centres-antipoison.net/nancy/index.html
Francie - Paris	☎+33/140054848	French	http://www.centres-antipoison.net/paris/index.html
Francie - Strasbourg	☎+33/388373737	French	http://www.centres-antipoison.net/strasbourg/index.html
Francie - Toulouse	☎+33/561777447	French	http://www.centres-antipoison.net/toulouse/index.html
Irsko	☎+353/18092166	English	http://www.poisons.ie/Public
Itálie - Bergamo	☎+39/800883300	Italian	Istituto Superiore di sanitá – Preparati Pericolosi
Itálie - Firenze	☎+39/0557947819	Italian	
Itálie - Milano	☎+39/02-66101029	Italian	
Itálie - Pavia	☎+39/0382-24444	Italian	
Itálie - Napoli	☎+39/081-5453333	Italian	
Itálie - Foggia	☎+39/800183459	Italian	
Itálie - Verona	☎+39/800011858	Italian	
Itálie - Roma	☎+39/06-49978000, ☎+39/06-3054343	Italian	
Kypr	☎+357/22405611	Greek	http://www.mlsi.gov.cy/
Litva	☎+370/52362052	Lithuanian	http://www.apsinuodijau.lt Apsinuodijimų informacijos biuras“
Lotyšsko	☎+371/67042473 / ☎+112	Latvian	Toksikoloģijas un sepses klīnikas Saindēšanās un zāļu informācijas centrs, Hipokrāta 2 Rīga, Latvija, LV-1038
Lucembursko	☎+49/80025500	German	http://www.poisoncentre.be
	☎+352/80025500	French	http://www.centreantipoisons.be
Maďarsko	☎+36/680201199, ☎+36/0614766464	Hungarian	http://www.okbi.hu/page.php?trid=1&dz=103 Egészségügyi Toxikológiai Tájékoztató Szolgálat (ETTSZ) E-mail: ettsz@nnk.gov.hu
Malta	☎+356/23952000	English	https://mccaa.org.mt/
Německo	☎+49/112, ☎+49/116117	German	
Německo - Berlin	☎+49/3019240	German	https://giftnotruf.charite.de
Německo - Bonn	☎+49/22819240	German	http://www.gizbonn.de/index.php?id=272
Německo - Erfurt	☎+49/361730730	German	https://www.ggiz-erfurt.de/home.html
Německo - Freiburg	☎+49/076119240	German	https://www.uniklinik-freiburg.de/giftberatung.html
Německo - Göttingen	☎+49/55119240	German	https://www.giz-nord.de/cms/index.php
Německo – Homburg/Saar	☎+49/684119240	German	http://www.uniklinikum-saarland.de/de/einrichtungen/kliniken_institute/kinder_und_jugendmedizin/informations_und_behandlungszentrum_fuer_vergiftungen_des_saarlandes
Německo – Mainz	☎+49/613119240	German	http://www.giftinfo.uni-mainz.de/index.php?id=24807
Německo - München	☎+49/8919240	German	http://www.toxinfo.med.tum.de
Nizozemsko	☎+31/302748888	Dutch	http://www.productnotification.nl/
~~Polsko – Kraków~~	~~☎+48/124119999~~	~~Polish~~	~~http://www.oit.cm.uj.edu.pl~~
~~Polsko – Gdansk~~	~~☎+48/586820404~~	~~Polish~~	~~http://www.pctox.pl/news.php~~
~~Polsko – Poznaň~~	~~☎+48/618476946~~	~~Polish~~	~~http://www.raszeja.poznan.pl/oddzialy/oddzialt oksykologiczny~~
~~Polsko – Warszawa~~	~~☎+48/607218174~~	~~Polish~~	~~okzit@burdpi.pol.pl~~
Portugalsko	☎+351/808250143 / ☎+112	Portuguese	http://www.inem.pt
Rakousko	☎+43/14064343	German	Austrian Poison Information Centre

Národní centra (PCCS)		TELEFON	JAZYK	Instituce / Webová stránka/ Email
				(Vergiftungsinformationszentrale-VIZ)
Řecko		☎+30/2107793777	Greek	Poison Information CentreChildren's Hospital "P&A Kyriakou" E-mail: poison_ic@aglaiakyriakou.gr
Rumunsko		☎+40/213183606, 215992300, 265212111	Romanian	spital@urgentafloreasca.ro secretariat@spitjudms.ro infotox@insp.gov.ro
Slovensko		☎+421/254652307	Slovak	http://www.ntic.sk
Slovinsko		☎+386/15221293 / ☎+112	Slovenian	www.kclj.si
Španělsko		☎+34/915620420	Spanish	Servicio de Información Toxicológica (SIT) Instituto Nacional de Toxicología y Ciencias Forenses (INTCF) C/José Echegaray nº4, 28232 Las Rozas de Madrid Madrid sit@mju.es / intcf@justicia.es
Švédsko		**SECTION 17.** ☎+46/112 **SECTION 18.** (112 – begär Giftinformation) k dispozici 24/7 zdarma	Swedish	Giftinformationscentralen / Swedish Poisons Information Centre https://giftinformation.se/servicemeny/in-english/

Declaration: The safety data sheet has been prepared in compliance with Directive (EC) No. 1907/2006 REACH. It contains information that is necessary for ensuring occupational health and safety and protection of the environment. This information has been stated in good spirits, it corresponds to the current level of knowledge and experience and complies with our valid legal regulations. The stated information does not replace the corresponding qualitative specification and it cannot be considered a guarantee of suitability and usability of this product for a particular application. It is the responsibility of the product user to assess accuracy of the information for particular applications, during which the product characteristics can be influenced by various factors. The consumer is responsible for complying with the valid regional legal regulations.

SAFETY SHEET APPENDIX

EXPOSURE SCENARIO PURSUANT TO ARTICLE 31 OF DIRECTIVE OF THE EUROPEAN PARLIAMENT AND COUNCIL (EC) NO. 1907/2006 (REACH)

It is a mixture. Based on Chapter 2.23.2 of the instructions for creating safety sheets, the consolidated information from the exposure scenario, which arise from the consolidation of various exposure scenarios used in the mixture, has been incorporated in main Sections 1-16 of the safety sheet.