Aviation fuel Avgas 100LL Aviation fuel Avgas 100VLL

[In accordance with the criteria of Regulation No 1907/2006 (REACH) and 453/2010]

# Section 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier Aviation fuel Avgas 100LL Aviation fuel Avgas 100VLL

Substances which influenced classification: naphtha (petroleum), light alkylate, naphtha (petroleum), isomerization, toluene.

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

Relevant identified uses:fuel for spark-ignition aviation engines.Uses advised against:not determined.

# 1.3 Details of the supplier of the safety data sheet

Manufacturer:	OBR Spółka Akcyjna	
Address:	ul. Chemików 5, 09-411 Płock,	Poland
Telephone number:	+48 24/ 365 33 07/+48 24/ 365	22 83
E-mail address for a competen	t person responsible for sds:	biuro@theta-doradztwo.pl reach@obr.pl

## 1.4 Emergency telephone number

112

# Section 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008

Flam. Liq. 2 H225, Repr. 2 H361d, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Chronic 2 H411

Highly flammable liquid and vapour. Suspected of damaging the unborn child. May be fatal if swallowed and enters airways. May cause damage to organs through prolonged or repeated exposure through inhalation. Causes skin irritation. May cause drowsiness or dizziness. Toxic to aquatic life with long lasting effects.

#### 2.2 Label elements

Hazard pictograms and signal words



Hazard statements

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure through inhalation.
H411	Toxic to aquatic life with long lasting effects.

 OBR S.A.	Safety Data Sheet	Date of update: 01.06.2015
PŁOCK	Aviation fuel Avgas 100LL Aviation fuel Avgas 100VLL	Version:5.0/EN

P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
	No smoking.
P260	Do not breathe mist/vapours.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331	Do NOT induce vomiting.
P303+P361+P3	353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P308+P313	IF exposed or concerned: Get medical advice/attention.

#### 2.3 Other hazards

Substances contain in the product do not meet criteria for PBT or vPvB in accordance with Annex XIII of Regulation REACH.

## Section 3: Composition/information on ingredients

#### 3.1 Substances

Not applicable.

# 3.2 Mixtures

<u>Naphtha (petroleum), light alkylate</u>	
Range of percentages:	> 30%
CAS number:	64741-66-8
EC number:	265-068-8
Index number:	649-276-00-X
Registration number:	01-2119463272-43-0004
Classification acc. to 1272/2008/WE*:	Flam. Liq. 2 H225, Aquatic Chronic 2 H411, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE. 3 H336
*taking into account the classification benzene.	of P notes the product contains less than 0.1 w/w % of
Naphtha (petroleum), isomerization	< 30%
Range of percentages:	
CAS number:	64741-70-4
EC number:	265-073-5
Index number:	649-277-00-5
Registration number:	01-2119480399-24-XXXX
Classification acc. to 1272/2008/WE*:	Flam. Liq. 2 H225, Aquatic Chronic 2 H411, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE. 3 H336
*taking into account the classification	of P notes the product contains less than 0.1 w/w % of
benzene and < 1% n-hexane.	
<u>Toluene</u>	
Range of percentages:	15-25%
CAS number:	108-88-3
EC number:	203-625-9
Index number:	601-021-00-3
Registration number:	01-2119471310-51-XXXX
Classification acc. to 1272/2008/WE:	Flam. Liq. 2 H225, Repr. 2 H361d, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H336
Substance with a specific value at the	Community level of the permissible concentration in the work

Substance with a specific value at the Community level of the permissible concentration in the work environment.

	OBR S.A.	Safety Data Sheet		Date of update: 01.06.2015		
			Aviation fuel Avgas 100LL viation fuel Avgas 100VLL	Version:5.0/EN		
Tetraethyllead						
	percentages:		< 0,1%			
CAS num			78-00-2			
EC numb	er:		201-075-4			
Index nur	nber:		082-002-00-1			
Registration number:			01-2119622080-57-XXXX			
Classification acc. to 1272/2008/WE*:		2008/WE*:	Repr. 1A H360FD, Acute Tox. 2 H330, Acute Tox. 2 H300, STOT RE 2 H373, Aquatic Chronic 1 H410			
*taking into account the classification n		ssification r	•			
1,2-dibromoethane						
Range of	percentages:		< 0,1%			
CAS num	ber:		106-93-4			
EC number:		203-444-5				
Index number:			602-010-00-6			
Registration number:			-			
Classification acc. to 1272/2008/WE:		2008/WE:	Carc. 1B H350, Acute Tox. 3 H331, Acute Tox. 3 H311, Acute Tox. 3 H301, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Irrit. 2 H315, Aquatic Chronic 2 H411			

Full text of each relevant H phrases is given in section 16 of sds.

#### Section 4: First aid measures

#### 4.1 Description of first aid measures

<u>Skin contact:</u> remove contaminated clothing, immediately wash skin with plenty of water. If there was no irritation, it is advisable to use soap. If irritation occurs, consult a doctor.

<u>Eye contact</u>: consult a doctor if irritation occurs. Protect non- irritated eye, remove contact lenses. Contact with eyes, rinse thoroughly with water for 10-15 minutes. Avoid strong stream of water - the risk of cornea damage.

<u>Ingestion</u>: do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Call a doctor immediately and show container or label.

<u>Inhalation:</u> immediately consult a physician. Remove to fresh air, keep warm and at rest. Withdrawal symptoms may be delayed. Exposed person may need medical supervision for 24 hours.

#### 4.2 Most import ant symptoms and effects, both acute and delayed

#### Symptoms may be delayed.

Eye contact: redness, tearing, mild irritation.

<u>Skin contact</u>: in the case of frequent or prolonged contact may cause redness, dryness, inflammation, irritation.

<u>Ingestion</u>: respiratory tract irritation, sore throat and respiratory tract, headache and dizziness. In serious cases, after 24 hours there is inflammation of the bronchi and lungs. In severe cases, pulmonary edema may occur, or loss of consciousness.

<u>Ingestion</u>: abdominal pain, nausea, vomiting, risk of pulmonary aspiration and chemical pneumonitis. In serious cases fainting may occur, hemolysis, disorders of internal organs.

#### 4.3 Indication of any immediate medical attention and special treatment needed

Physician makes a decision regarding further medical treatment after thoroughly examination of the injured.

#### Section 5: Firefighting measures

#### 5.1 Extinguishing media

<u>Suitable extinguishing media:</u> powder (CO2) and foam extinguishers. Powder extinguishers with ABC/BC putting powder. Ultimately water spray. <u>Unsuitable extinguishing media:</u> water jet – risk of the propagation of the flame.

# 5.2 Special hazards arising from the substance or mixture

During the combustion, toxic gases may be generated, such as carbon monoxide, nitrogen oxides, organic vapors, etc. Avoid inhalation of combustion products that may pose a health risk.

# 5.3 Advice for firefighters

The security measures typical in case of fire. Do not stay in the danger zone without adequate fireresistant clothing and chemical-contained breathing apparatus with independent air circulation. Highly flammable. In the case of a fire or heating pressure increase will occur in the tank, which creates a risk of explosion. Product vapors are heavier than air and accumulate in the lower parts of the premises. There is a high likelihood of an explosive mixture with air - if such a danger occurs , order an immediate evacuation. Containers exposed to fire should be cooled from a safe distance with water spray jet. Do not allow extinguishing water entering drains, surface water and groundwater .

# Section 6: Accidental release measures

# 6.1 Personal precautions, protective equipment and emergency procedures

ATTENTION! Explosion threat. Fumes may float around the floor / ground towards remote ignitron sources. Restrict the access of outsiders to the area of accident pending the completion of cleaning operation. Ensure that any failure or its consequences is being carried out only by trained personnel. For large spills, isolate the danger area. Avoid direct contact with releasing product. Avoid breathing vapors. Use personal protective equipment. Avoid contact with eyes and skin. Provide adequate ventilation. Remove all sources of ignition, extinguish flames, announce a prohibition of smoking. Danger of slipping on spilled product.

# 6.2 Environmental precautions

In case of release of large amounts of the mixture, it is necessary to take appropriate steps to prevent it from spreading into the environment. Do not let the product to get through the surface or ground water and sewage system. Notify relevant emergency services.

# 6.3 Methods and material for containment and cleaning up

Damaged container place in an emergency container. Limit distribution of flood by embankment area; to pump out the collected liquid. Small amounts of the spilled liquid with a material absorber collect (sand, the earth, polymeric sorbents) and place in the closed container for a waste. Utilize in accordance with applicable regulations.

# 6.4 Reference to other sections

Appropriate conduct with waste product – see section 13. Personal protective equipment – see section 8.

# Section 7: Handling and storage

# 7.1 Precautions for safe handling

Work in accordance with the principles of safety and hygiene. Avoid contact with eyes and skin. Before the break and after work wash your hands. Unused containers should be sealed locked. Ensure adequate ventilation. Eliminate sources of ignition - do not use open flames, no smoking, no sparking tools and clothing fabrics are susceptible to electrostatic; protect the tanks from heat, install electrical equipment in explosion-proof technology.

# 7.2 Conditions for safe storage, including any incompabilities

Keep preparation in certified, properly labelled, tightly closed containers. Warehouse must be equipped with mechanical air-condition system, and anti-explosive lighting installation. Outdoor storage is allowed containers should be kept away from heat sources. Smoking, using open fire and sparks creating tools is banned. Keep on a hard impermeable surface, made of materials resistant to hydrocarbons. Tanks should be filled up to 90% of their volume. Keep away from oxidizing agents.

# 7.3 Specific end use(s)

Fuel for spark-ignition aviation engines.

Please check any national occupational exposure limit values in your country for substance contained in this product.

Legal Basis: Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative

**DNEL and PNEC** 

**Control parameters** 

toluene [CAS 108-88-3]

91/322/EEC and 2000/39/EC.

Toluene:

DNEL workers (dermal, long-term exposure - systemic): 384 mg/m3/dzień

DNEL workers (inhalation, long-term exposure - systemic): 192 mg/m3

DNEL workers (inhalation, long-term exposure - local): 192 mg/m3

DNEL workers (inhalation, acute exposure- systemic) 384 mg/m3

DNEL general population (dermal, long-term exposure - systemic): 226 mg/kg m.c.

DNEL general population (inhalation, long-term exposure - systemic): 56,5 mg/m3

DNEL general population (doustnie, long-term exposure - systemic): 8,13 mg/kg m.c.

DNEL general population (inhalation, acute exposure - local): 226 mg/m3.

PNEC agua freshwater 0,68 mg/l

PNEC agua marine water 0,68 mg/l

PNEC soil 2,89 mg/kg

PNEC sediment 16,39 mg/kg

PNEC sewage treatment plant 13,61 mg/kg

Benzyna; Benzyna po izomeryzacji (ropa naftowa):

DN(M)EL (inhalation, acute exposure) : 1300 mg/m3/ 15 min

DN(M)EL (inhalation, acute exposure- systemic) : 4320 mg/m3/1 h

DN(M)EL (inhalation, long-term exposure): 840 mg/m3/8 h

DN(M)EL (inhalation, long-term exposure): 10.000 mg/m3/6h/5 dni

PNEC aqua freshwater: Tetrahymena pyriformis LL50 (72 h) 15,41 mg/L

#### 8.2. Exposure controls

Observe the general safety and hygiene. During operation, do not eat, drink or smoke. Avoid contact with skin and eyes. Avoid breathing vapors or aerosols. Ensure good ventilation at work stations local and general ventilation - to ensure the maintenance of concentrations of hazardous components in the atmosphere below the exposure limit values. In case of worker being drench, showers and eye safety washers should be installed near the working place.

#### Hand and body protection

Use gloves resistant to chemicals. Recommended glove material: nitrile rubber, PVA. In case of short-term exposure wear the protective gloves with protection level 2 or higher (breakthrough time > 30 min). In case of long-term exposure wear the protective gloves with protection level 6 (breakthrough time > 480 min). Wear protective clothing.

The material that the gloves are made of must be impenetrable and resistant to the product's effects. The selection of material must be performed with consideration of breakthrough time, penetration speed and degradation. Moreover, the selection of proper gloves depends not only on the material, but also on other quality features and changes depending on the manufacturer. The producer should provide detailed information regarding the exact breakthrough time. This information should be followed.

#### Eye/face protection

Wear goggles in a sealed enclosure, in case of emergency liquid splashing into the eye, exposure to mist or prolonged exposure to steam.









PŁOCK

Section 8:

Specification

Safety Data Sheet

Exposure controls/personal protection

TWA 8 hour

 $192 \text{ mg/m}^3$ 



8.1

STEL 15 min

 $384 \text{ mg/m}^3$  (skin)

OBR S.A.

Respiratory protection

In normal conditions the application is not required. For concentrations exceeding limit values or insufficient ventilation, use approved respirator with appropriate filter or combined filter.

For work in confined spaces, insufficient oxygen in the air, a large uncontrolled emissions or other circumstances when the mask does not provide enough protection to use breathing apparatus with independent air supply.

Personal protective equipment must meet requirements of directive 89/686/CE. Employer is obliged to ensure equipment adequate to activities carried out, with quality demands, cleaning and maintenance.

Environmental exposure controls

Prevent direct runoff into drains / surface waters. Do not contaminate surface waters and drainage ditches, chemicals or used packaging. Any spill or uncontrolled spills into surface water should be reported to the appropriate authorities in accordance with national and local regulations. Export as chemical waste in accordance with national and local regulations.

#### Section 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

•	information on basic physical and chemica	i properties
	physical state:	liquid
	colour:	light blue, transparent
	odour:	characteristic for organic solvents
	odour threshold:	not determined
	pH:	not determined
	melting point/freezing point:	< - 60°C
	initial boiling point and boiling range:	37°C
	flash point:	< 0°C
	evaporation rate:	not determined
	flammability (solid, gas):	not applicable
	upper/lower flammability or explosive limits:	1,4% vol./ 11,5%vol.
	vapour pressure (37,8°C):	38-49 kPa
	vapour density:	> 1 (air=1)
	density (20°C):	710 -730 kg/m <sup>3</sup>
	solubility(ies):	does not dissolve in water, dissolved in organic
		solvents
	partition coefficient: n-octanol/water:	not determined
	auto-ignition temperature:	not determined
	decomposition temperature:	not determined
	explosive properties:	vapours can form explosive mixtures with air
	oxidising properties:	not display
	dynamic viscosity:	< 20,5 mm <sup>2</sup> /s
n	Other information	

# 9.2 Other information

Not.

# Section 10: Stability and reactivity

#### 10.1 Reactivity

The product reacts with strong oxidizing agents. May form explosive mixtures with air. The product may soften some plastics.

#### 10.2 Chemical stability

The product is stable under normal conditions.

#### **10.3** Possibility of hazardous reactions

Dangerous reactions are not known.

#### 10.4 Conditions to avoid

Avoid heat sources, heat, open flames, direct sunlight, electrostatic discharge.



#### 10.5 Incompatible materials

Strong oxidizers.

# **10.6 Hazardous decomposition products**

Unknown.

# Section 11: Toxicological information

# 11.1 Information on toxicological effects

Acute toxicity of components				
Toluene				
LD <sub>50</sub> (orally , rat)	636 mg.kg			
LD <sub>50</sub> (skin, rabbit) LD <sub>50</sub> (inhalation, rat)	12 124 mg/kg 4 000 ppm/4h			
Naphtha				
$LD_{50}$ (orally, rat)	> 5000 mg/kg			
$LC_{50}$ (inhalation, rat)	> 5610 mg/l (4 h)			
LD <sub>50</sub> (skin, rabbit)	> 5000 mg/kg			
NOAEL: NOAEC:	10080 mg/m³ air 9840 mg/m³ air			
Tetraethyllead	9040 mg/m an			
$LC_{50}$ (inhalation, rat)	850 mg/m3 (1 h)			
$LD_{50}$ (orally, rat)	12300 µg/kg			
1,2-dibromoethane:				
LD <sub>50</sub> (skin, rabbit)	300 mg/kg			
LD <sub>50</sub> (orally , rat)	108 mg/kg			
Toxicity of product				
Acute toxicity				
ATEmix (oral):	5 000 mg/kg			
ATEmix (skin):	5 000 mg/kg			
ATEmix (inhalation, vapour):	> 5 mg/l			
	lassification criteria are not met.			
Skin corrosion/ irritation Causes skin irritation. May cau	ico droweinose or dizzinose			
•				
Serious eye damage/ irritation Based on available data, the classification criteria are not met.				
Respiratory or skin sensitisation				
	lassification criteria are not met.			
Germ cell mutagenicity				
Based on available data, the c	lassification criteria are not met.			
Carcinogenicity				
Based on available data, the c	lassification criteria are not met.			
Reproductive toxicity				
Suspected of damaging the ur	nborn child.			
STOT- single exposure				
Based on available data, the classification criteria are not met.				
STOT- repeated exposure				
May cause damage to organs through prolonged or repeated exposure through inhalation.				
<u>Aspiration hazard</u> May be fatal if swallowed and enters airways.				
may be ratar in Swallowed and	may be fata in owallowed and entered an waye.			

OBR S.A.

## Aviation fuel Avgas 100LL Aviation fuel Avgas 100VLL

#### Health effects of acute exposure

Eyes Mucous membrane irritation, tearing hyperaemia, irritation of the respiratory tract, headache, dizziness, nausea, vomiting, with higher concentrations of vapor coordination abnormal, confusion, unconsciousness. Acute, severe and even fatal aviation gasolinepoisoning occur during cleaning of tanks, storage tanks, during pouring. Sometimes dangerous aviation gasoline soaked clothing, which easily penetrates into the body through the skin. Aviation gasoline damage internal organs, including bone and liver. Sensitize the myocardium. Leads to respiratory paralysis.

## Health effects of chronic exposure

The symptoms of chronic exposure: upper respiratory inflammation and skin (dryness, redness, cracking). Decreased appetite are observed, general weakness and conjunctivitis, symptoms of central nervous system.

# Section 12: Ecological information

## 12.1 Toxicity

## Toxicity of components

Gasoline (in general)

Toxicity to fish  $LC_{50}$  100 mg Pb/l (*Salmo gairdneri irideus*) Concentration leads to a distortion of anaerobic fermentation of sewage sludge: >400 mg/l

70-420 mg/l

# <u>Toluene</u>

Toxicity to aquatic organisms LC<sub>50</sub> Toxicity to daphnia EC<sub>50</sub>

Toxicity to algae  $EC_{50}$ 

#### Tetraethyllead

Toxicity to fish  $LC_{50}$ Toxicity to plankton  $EC_{50}$ Toxicity to microorganisms  $EC_{50}$  125-160 mg/l (S*cenedesmus*) 480 mg Pb/l (Leuciscus idus melanotus)

270 mg/l (Daphnia magna)

95 mg Pb/l 0,1 mg Pb/l

# Toxicity of product

Dangerous for the environment. Toxic to aquatic life with long lasting effects.

#### 12.2 Persistence and degradability

Ingredients are poorly degradable.

#### 12.3 Bioaccumulative potential

Potential to bio-accumulate. The product can accumulate in organisms.

#### 12.4 Mobility in soil

Insoluble in water, it floats on the surface. Product is mobile in soil. Mobility of components of the mixture in soil depends on the hydrophilic and hydrophobic properties and biotic and abiotic conditions of soil, including its structure, climatic conditions, seasons and soil organisms (mostly: bacteria, fungus, algae, invertebrates).

# 12.5 Results of PBT and vPvB assessment

Not applicable.

#### 12.6 Other adverse effects

Acceptable ambient air pollution: 0,5µg/m<sup>3</sup> per Pb. The mixture is not classified as hazardous to the ozone layer. Consider other harmful effects of individual components of the mixture on the environment (e.g., endocrine disrupting potential, global warming potential).

#### Section 13: Disposal considerations

#### 13.1 Waste treatment methods

<u>Disposal methods for the product:</u> dispose in accordance with applicable regulations. Do not empty into drains. Residues stored in sealed, steel containers. Wastes classify as hazardous waste.

<u>Disposal methods for used packing:</u> recycling or neutralizing should be done according to obligatory regulations for waste. Only completely emptied packaging can be recycled. Do not mix with other waste.

Legal basis: Directive 2008/98/EC, 94/62/EC.

# Section 14: Transport information

- 14.1 UN numer (ONZ Number) 1203
- 14.2 UN proper shipping name

ADR/RID MOTOR SPIRIT IMDG MOTOR SPIRIT ICAO/IATA MOTOR SPIRIT

14.3 Transport hazard class(es)

# 3

# 14.4 Packing group

II

# 14.5 Environmental hazards

According to ADR, RID, IMDG product is a threat to the environment.

#### 14.6 Special precautions for user

Wear suitable protective clothing, gloves and eye / face protection in accordance with section 8. Avoid ignition sources.

# 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

# Section 15: Regulatory information

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

**Regulation (EC) No 1907/2006** of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

**Regulation (EC) No 1272/2008** of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance).

**Commission Regulation (EC) No 790/2009** of 10 August 2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures (Text with EEA relevance).

**Commission Regulation (EU) No 453/2010** of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Text with EEA relevance).

**Directive 2008/98/EC** of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.

#### 15.2 Chemical safety assessment

Chemical safety assessment was carried out for the substance.

OBR S.A.

Aviation fuel Avgas 100LL Aviation fuel Avgas 100VLL

#### Section 16: Other information

Full text of indicated R and H phrases mentioned in section 3

- H225 Highly flammable liquid and vapour.
- H300 Fatal if swallowed.
- H301 Toxic if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H310 Fatal in contact with skin.
- H311 Toxic in contact with skin.
- Causes skin irritation. H315
- Causes serious eye irritation. H319
- Fatal if inhaled. H330
- H331 Toxic if inhaled.
- May cause respiratory irritation. H335
- H336 May cause drowsiness or dizziness.
- H350 May cause cancer.
- H360 May damage fertility or the unborn child.
- Suspected of damaging fertility or the unborn child. H361
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.

Clarification of aberrations and acronyms

- PBT Persistent, Bioaccumulative and Toxic substance
- vPvB very Persistent, very Bioaccumulative substance
- TWA **Time Weighted Average**
- STEL Short-term exposure limit
- Acute Tox. 1 Acute toxicity cat. 1
- Acute Tox. 2 Acute toxicity cat. 2
- Asp. Tox. 1 Aspiration hazard cat. 1
- Aquatic Acute 1 Hazardous to the aquatic environment cat. 1

Aquatic Chronic 1 Hazardous to the aquatic environment cat. 1

- Aquatic Chronic 2 Hazardous to the aquatic environment cat. 2
- Carcinogenicity cat. 1B Carc. 1B
- Eye Irrit. 2 Eye irritation cat. 2
- Flam. Liq. 2 Flammable liquid cat. 2
- Reproductive toxicity cat. 1A Repr. 1A
- Reproductive toxicity cat. 2 Repr. 2
- Skin Irrit. 2 Skin irritation cat. 2
- Specific target organ toxicity repeated exposure cat. 2 Specific target organ toxicity repeated exposure cat. 3 STOT RE 2
- STOT RE 3

#### Trainings

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training. Drivers should be trained and obtain proper certification in accordance with the requirements of ADR.

#### Other data

Classification was based on data on hazardous substances calculation method under the guidance of Regulation 1272/2008/EC (CLP).

Modifications:	section:1-16
Composed by:	mgr Anna Michalska-Maciejczyk (on the basis of producer's data).
Safety Data Sheet made by:	"THETA" Doradztwo Techniczne

#### This SDS annuls and replaces all previous version SDS

 OBR S.A.	Safety Data Sheet	Date of update: 01.06.2015
PŁOCK	Aviation fuel Avgas 100LL Aviation fuel Avgas 100VLL	Version:5.0/EN

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid to safety in transport, storage and usage of the product. That does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.