	<b>Safety Data Sheet</b>	Date of update: 30.10.2023
	<b>Aviation fuel Avgas 100LL</b> containing <0.1% benzene, <0,1% cumene	Version:8.2/EN

[In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended]

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

#### 1.1 Product identifier

**Trade name:** Aviation fuel Avgas 100LL  
**Chemical characterization:** mixture of hydrocarbons containing <0.1% benzene, <0,1% cumene  
**UFI number:** KM30-60TK-K001-ME4H

#### 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:** WARTER FUELS Spółka Akcyjna  
**Address:** ul. Chemików 5, 09-411 Płock, Poland  
**Telephone number:** +48 24/ 365 33 07/+48 24/ 365 22 83  
 with its registered office in Warsaw, address: ul. Korolowa 60, 02-967 Warszawa  
 E-mail address for a competent person responsible for sds: biuro@theta-doradztwo.pl

#### 1.4 Emergency telephone number

112

### Section 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Flam. Liq. 1** H224, **Asp. Tox. 1** H304, **Skin Irrit. 2** H315, **STOT SE 3** H336, **STOT RE 2** H373, **Repr. 2** H361d, **Aquatic Chronic 2** H411

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

#### 2.2 Label elements

Hazard pictograms and signal words




Substances which influenced classification:

naphtha (petroleum), light alkylate, naphtha (petroleum), isomerization, toluene

Hazard statements

H224 Extremely 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.

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#### Precautionary statements

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+P353	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

Product component: 1,2-dibromoethane is classified as a PBT substance according to Annex XIII of the REACH regulation.

The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0.1% by weight.

## Section 3: Composition/information on ingredients

### 3.1 Substances

Not applicable.

### 3.2 Mixtures

#### Naphtha (petroleum), light alkylate

Range of percentages:	30-70%
CAS number:	64741-66-8
EC number:	265-068-8
Index number:	649-276-00-X
Registration number:	01-2119463272-43-0004
Classification*:	Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE. 3 H336, Aquatic Chronic 2 H411

\*taking into account the classification of P notes, **the product contains less than 0.1 w/w % of benzene.**


#### Naphtha (petroleum), isomerization

Range of percentages:	0-30%
CAS number:	64741-70-4
EC number:	265-073-5
Index number:	649-277-00-5
Registration number:	01-2119480399-24-XXXX
Classification*:	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.**

#### Naphtha (petroleum), full-range alkylate

Range of percentages:	0-20%
CAS number:	64741-64-6
EC number:	265-066-7
Index number:	649-274-00-9

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Registration number: 01-2119485026-38-XXXX  
 Classification\*: Flam. Liq. 1 H224, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE. 3 H336, Aquatic Chronic 2 H411

\*taking into account the classification of P notes, **the product contains less than 0.1 w/w % of benzene.**

Toluene

Range of percentages: 10-24%  
 CAS number: 108-88-3  
 EC number: 203-625-9  
 Index number: 601-021-00-3  
 Registration number: 01-2119471310-51-XXXX  
 Classification: Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Repr. 2 H361d, STOT RE 2 H373,

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

Isopentane

Range of percentages: 0-30%  
 CAS number: 78-78-4  
 EC number: 201-142-8  
 Index number: 601-085-00-2  
 Registration number: 01-2119475602-38-XXXX  
 Classification: Flam. Liq. 1 H224, Asp. Tox. 1 H304, STOT SE 3 H336, Aquatic Chronic 2 H411, EUH066

Xylene, mixed isomers


Range of percentages: 0-5%  
 CAS number: 1330-20-7  
 EC number: 215-535-7  
 Index number: 601-022-00-9  
 Registration number: 01-2119488216-32-XXXX  
 Classification: Flam. Liq. 3 H226, Asp. Tox. 1 H304, Acute Tox. 4 H332, Acute Tox. 4 H312, Skkin Irrit. 2 H315, Eye Irrit. 2 H319, STOT SE 3 H335, STOT RE 2 H373

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

Tetraethyllead

Range of percentages: < 0,1%  
 CAS number: 78-00-2  
 EC number: 201-075-4  
 Index number: 082-002-00-1  
 Registration number: 01-2119622080-57-XXXX  
 Classification: Acute Tox. 2 H300, Acute Tox. 1 H310, Acute Tox. 2 H330, Repr. 1A H360FD, STOT RE 2 H373, Aquatic Acute 1 H400, Aquatic Chronic 1 H410

\*taking into account the classification note of A.

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1,2-dibromoethane

Range of percentages:	< 0,1%
CAS number:	106-93-4
EC number:	203-444-5
Index number:	602-010-00-6
Registration number:	01-2119539453-38-XXXX
Classification:	Acute Tox. 3 H301, Acute Tox. 3 H311, Skin Irrit. 2 H315, Eye Irrit. 2 H319, Acute Tox. 3 H331, STOT SE 3 H335, Carc. 1B H350, Aquatic Chronic 1 H410

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

Skin contact: 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.

Eye contact: 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.

Ingestion: 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.

Inhalation: immediately consult a physician. Remove to fresh air, keep warm and at rest. Place the conscious person in a semi-sitting position; unconscious to arrange in the lateral position fixed; control and maintain airway patency. When breathing difficult, give oxygen, in case of lack of breath, apply artificial respiration with the help of the AMBU apparatus.

### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms may be delayed.

Eye contact: redness, tearing, mild irritation.

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

Ingestion: 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.

Ingestion: 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. In the event of inhalation of decomposition products formed during a fire, the occurrence of symptoms may be delayed. An exposed person may require medical supervision for 48 hours.

## Section 5: Firefighting measures


### 5.1 Extinguishing media

Suitable extinguishing media: fire extinguishers (CO<sub>2</sub>), foam extinguishers, liquid extinguishers with an additional aqueous solution of the agent, powder extinguishers with ABC extinguishing powder, powder extinguishers with quenching powder BC, as a last resort, a sprayed stream of water.

Unsuitable extinguishing media: 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.

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### 5.3 Advice for firefighters

The security measures typical in case of fire. Do not stay in the danger zone without adequate fire-resistant 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. It is necessary to isolate the threatened area and not take any action that would pose a risk to health or life. 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

For persons who do not belong to the personnel that liquidates the consequences of a breakdown: limit access of unauthorized persons to the area of failure until the completion of appropriate cleaning operations. In the case of large spills, isolate the area at risk. Avoid direct contact with the released product. Avoid breathing in vapors. Use personal protective equipment. Avoid contact with eyes and skin. Ensure adequate ventilation. Remove the ignition source, extinguish open fire, and announce a smoking ban. Danger of slipping on spilled product.

For those who eliminate the consequences of a breakdown: make sure that the removal of breakdowns and its consequences is carried out only by trained personnel. Use personal protective equipment.

### 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 get through the surface or ground water and sewage system. Notify relevant emergency services. Contaminated soil should be exchanged.

### 6.3 Methods and material for containment and cleaning up

Large leak: place bunds of liquid, drain the collected liquid.

Small leak: collect with non-flammable liquid absorbing materials (eg sand, soil, universal binders, silica, vermiculite, etc.) and place in labeled containers. Collect the collected material as waste. Clean and ventilate the contaminated area.

### 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. Do not inhale the par. Do not allow the product to enter the mouth. Do not allow the concentration of fumes in the air and concentration within the limits of explosive or exceeding occupational exposure limit values. 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. Open the product containers carefully, dropping the overpressure. Empty packaging may contain product residues (liquid, vapor) that form an explosive mixture with air. Uncleaned packages / tanks must not be cut, drilled, grinded, welded, or performed in their vicinity. During loading operations, the necessary earthing must be made before static electricity.

### 7.2 Conditions for safe storage, including any incompatibilities

Store only in certified, properly labeled, closed steel tanks, in cool, well-ventilated warehouses. Store on a hard impermeable surface made of materials resistant to hydrocarbons. Tanks fill up to 90% of the volume. Store the ban on smoking, eating, using open fire and sparking tools.

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### 7.3 Specific end use(s)

Fuel for spark-ignition aviation engines.

## Section 8: Exposure controls/personal protection

### 8.1 Control parameters

Specification	TWA 8 hour	STEL 15 min
toluene [CAS 108-88-3]	192 mg/m <sup>3</sup>	384 mg/m <sup>3</sup> (skin)
xylene, mixed isomers, pure [CAS 1330-20-7]	221 mg/m <sup>3</sup>	442 mg/m <sup>3</sup> (skin)

Legal Basis: Commission Directive 2006/15/EC, 2000/39/EC, 2009/161/EC, 2017/164/EU, 2019/1831/.

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

DNEL and PNEC

#### Toluene:

DNEL workers (dermal, long-term exposure - systemic): 384 mg/m<sup>3</sup>/dzień

DNEL workers (inhalation, long-term exposure - systemic): 192 mg/m<sup>3</sup>

DNEL workers (inhalation, long-term exposure - local): 192 mg/m<sup>3</sup>

DNEL workers (inhalation, acute exposure- systemic) 384 mg/m<sup>3</sup>

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

DNEL general population (inhalation, long-term exposure - systemic): 56,5 mg/m<sup>3</sup>

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

DNEL general population (inhalation, acute exposure - local): 226 mg/m<sup>3</sup>.

PNEC aqua freshwater 0,68 mg/l

PNEC aqua 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

#### Naphtha (petroleum), isomerization:

DN(M)EL (inhalation, acute exposure) : 1300 mg/m<sup>3</sup>/ 15 min

DN(M)EL (inhalation, acute exposure- systemic) : 4320 mg/m<sup>3</sup>/ 1 h

DN(M)EL (inhalation, long-term exposure): 840 mg/m<sup>3</sup>/ 8 h

DN(M)EL (inhalation, long-term exposure): 10.000 mg/m<sup>3</sup>/6h/5 day

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 according to EN ISO 374. 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 protective goggles according to EN 166 .

Respiratory protection

In case of vapors and aerosols formation, use the absorbing or absorbing and filtering equipment of an adequate protective class (class 1/ protection from gasses or vapors with a volume concentration lower than 0,1%; class 2/ protection from gasses or vapors with a volume concentration lower than 0,5%; class 3/ protection from gasses or vapors with a volume concentration up to 1%). If the concentration of oxygen is  $\leq 17\%$  and/or the maximum concentration of toxic substance in the air is  $\geq 1,0\%$  of volume the isolating equipment should be used.

Personal protective equipment must meet requirements of Regulation 2016/425/EU. 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.

**Section 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

physical state:	liquid
colour:	light blue, transparent
odour:	characteristic for organic solvents
melting point/freezing point:	< - 60°C
boiling point or initial boiling point and boiling range:	> 33°C
flammability:	extremely flammable liquid and vapour
lower and upper explosive limits:	1,4% vol./ 11,5%vol.
flash point:	-45 ÷ -35°C
auto-ignition temperature:	not determined
decomposition temperature:	not determined
pH:	not determined
kinematic viscosity:	not determined
solubility:	does not dissolve in water, dissolved in organic solvents
partition coefficient: n-octanol/water (log value):	not determined
vapour pressure (37,8°C):	38-49 kPa
density and/or relative density (15°C):	700 -730 kg/m <sup>3</sup>
relative vapour density:	> 1 (air=1)
particle characteristics:	not applicable

**9.2 Other information**

corrosive properties:	not display
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**Section 10: Stability and reactivity****10.1 Reactivity**

Under normal conditions, it does not react dangerously with other substances. The product may soften some plastics. Polymerization is not dangerous. See also subsection: 10.3-10.5.

**10.2 Chemical stability**

The product is stable under normal conditions.

**10.3 Possibility of hazardous reactions**

The product may form explosive mixtures with air.

**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 hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity of components**Naphtha (petroleum), light alkylate:

LD50 oral, rat	> 5000 mg/kg
LC50 inhalation, rat	> 5610 mg/l (4 h)
LD50 dermal,rabbit	> 5000 mg/kg
NOAEL:	10080 mg/m <sup>3</sup> air
NOAEC:	9840 mg/m <sup>3</sup> air

Tetraethyllead:

LC50 inhalation, rat	850 mg/m <sup>3</sup> (1 h)
LD50 oral, rat	12300 µg/kg

1,2-dibromoethane:

LD50 dermal, rabbit	300 mg/kg
LD50 oral, rat	108 mg/kg

Toluene:

LD50 oral, rat	5580 mg/kg
LD50 dermal, rabbit	> 5000 mg/kg
LC50 inhalation, rat	> 20 mg/l (4 h)
NOAEC	1131 mg/m <sup>3</sup>

Information concerning acute and/or delayed effects of exposure was specified on the base of classification of the product and/or toxicology testing and the manufacturer's knowledge and experience.

**Toxicity of product**Acute toxicity

ATEmix (oral):	5 000 mg/kg
ATEmix (skin):	5 000 mg/kg
ATEmix (inhalation, vapour):	> 5 mg/l

Based on available data, the classification criteria are not met.

Skin corrosion/ irritation

Causes skin irritation.

Serious eye damage/ irritation

Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.


Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Suspected of damaging the unborn child.



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STOT- single exposure

May cause drowsiness or dizziness.

STOT- repeated exposure

May cause damage to organs through prolonged or repeated exposure through inhalation.

Aspiration hazard

May be fatal if swallowed and enters airways.

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 gasoline poisoning 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.

**11.2. Information on other hazards**

Endocrine disrupting properties

The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1% by weight.

Other information

No data.

**Section 12: Ecological information**

**12.1 Toxicity**

**Toxicity of components**

Naphtha (petroleum), light alkylate

Acute toxicity

fish LL <sub>50</sub> (96 h)	8,2 mg/l ( <i>Pimephales promelas</i> )
invertebrates EL50 (48h)	12 mg/l ( <i>Daphnia magna</i> )w środowisku wodnym.
algae EL <sub>50</sub> (96h)	45 mg/l ( <i>Selenastrum capricornutum</i> )

Chronic toxicity

skorupiaki NOELR (21 dni)	16 mg/l ( <i>Daphnia magna</i> )
glony NOELR (96 h)	18 mg/l ( <i>Selenastrum capricornutum</i> )

Tetraethyllead

Acute toxicity

invertebrates LC <sub>50</sub> (48 h)	85 µg/l ( <i>Artemia salina</i> )
fish LC <sub>50</sub> (96 h)	230 µg /l ( <i>Pleuronectes platessa</i> )

1,2-dibromoethane

Acute toxicity

fish LC <sub>50</sub> (96 h)	32,1 mg /l
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Toluene

Acute toxicity

fish LC <sub>50</sub> (96 h)	24 mg/l ( <i>Lepomis macrochirus</i> )
LC <sub>50</sub> (96 h)	13 mg/l ( <i>Carassius auratus</i> )
LC <sub>50</sub> (96 h)	6,3 mg/l ( <i>Oncorhynchus kisutch</i> )
LC <sub>50</sub> (96 h)	59,3 mg/l ( <i>Peocillia reticulata</i> )

invertebrates EC <sub>50</sub> (48 h)	10 mg/l ( <i>Daphnia magna</i> )
algae EC <sub>50</sub> (72h)	32 mg/l ( <i>Selenastrum capricornutum</i> )
Chronic toxicity	
fish LOEC (32 days):	1,6 mg/l ( <i>Pimephales promelas</i> )
EC <sub>10</sub>	3,5 mg/l ( <i>Oncorhynchus mykiss</i> )
marine fish NOEC (28 dni)	3,1 mg/l ( <i>Morone saxatilis</i> )
LOEC (28 dni)	5,3 mg/l ( <i>Morone saxatilis</i> )
invertebrates i NOEC (7 dni)	38 uM ( <i>Ceriodaphnia dubia</i> )
LOEC (7 dni)	114 uM ( <i>Ceriodaphnia dubia</i> )

**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**

Product component: 1,2-dibromoethane is classified as a PBT substance according to Annex XIII of the REACH regulation.

**12.6 Endocrine disrupting properties**

The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1% by weight.

**12.7 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**


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

Disposal methods for used packaging: recycling or neutralizing should be done according to obligatory regulations for waste. Only completely emptied packagings can be recycled. Do not mix with other waste. The classification for this waste meets the requirements for the hazardous waste.

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

**Section 14: Transport information****14.1 UN number or ID number**

UN 1203

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#### 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 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 as amended.

**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) as amended.

**Commission Regulation (EU) No 2015/830** of 28 May 2015 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).

**Commission Regulation (EU) No 2020/878** of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

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

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

**Regulation (EU) 2016/425** of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC (Text with EEA relevance).


**Commission Directive 2000/39/EC** of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

**Commission Directive 2006/15/EC** of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.

**Commission Directive 2009/161/EU** of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

**Commission Directive 2017/164/EU** of 31 January 2017 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU.

**Commission Directive 2019/1831/EU** of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

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**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 as amended.

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**Commission Regulation (EU) No 2015/830** of 28 May 2015 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).

**Commission Regulation (EU) No 2020/878** of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

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

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

**Regulation (EU) 2016/425** of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC (Text with EEA relevance).

## 15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for mixtures in accordance with REACH Regulation.


### 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.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H350	May cause cancer.
H360FD	May damage fertility. May damage the unborn child.
H361d	Suspected of damaging the unborn child.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
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

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Aquatic Chronic 2 Hazardous to the aquatic environment cat. 2  
 Carc. 1B Carcinogenicity cat. 1B  
 Eye Irrit. 2 Eye irritation cat. 2  
 Flam. Liq. 2 Flammable liquid cat. 2  
 Repr. 1A Reproductive toxicity cat. 1A  
 Repr. 2 Reproductive toxicity cat. 2  
 Skin Irrit. 2 Skin irritation cat. 2  
 STOT RE 2 Specific target organ toxicity — repeated exposure cat. 2  
 STOT RE 3 Specific target organ toxicity — repeated exposure cat. 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  
 Safety Data Sheet made by: **THETA Consulting Sp. z o.o.**

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.