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|  | Safety Data Sheet | Date of update: 02.03.2020 |
| | ALKYLATE PETROL PRO FUEL 2 | Version: 3.0/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

ALKYLATE PETROL PRO FUEL 2

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

Relevant identified uses: fuel used for devices powered by two-stroke 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

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, 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. Toxic to aquatic life with long lasting effects.

2.2 Label elements

Hazard pictograms and signal words



Substances which influenced classification


Contain: naphtha (petroleum), full-range alkylate; isopentane; naphtha (petroleum), isomerization.

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.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

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.

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P280 Wear protective gloves/protective clothing/eye protection.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER /doctor.

P331 Do NOT induce vomiting.
 P308+P313 If exposed or concerned: Get medical advice/attention.

2.3 Other hazards

Components of the mixture do not meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

Section 3: Composition/information on ingredients

3.1 Substances

Not applicable.

3.2 Mixtures

naphtha (petroleum), full-range alkylate

Range of percentages: < 80 %
 CAS number: 64741-64-6
 WE number: 265-066-7
 Index number: 649-274-00-9
 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 note P, the product contains less than 0.1 w/w % of benzene

isopentane¹

Range of percentages: 0-14 %
 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, EUH066²

naphtha (petroleum), isomerization

Range of percentages: 0-16 %
 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. 1 H224, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336,
 Aquatic Chronic 2 H411


*taking into account the note P, the product contains less than 0.1 w/w % of benzene

The product additionally contains lubricating oil (2%), which is not classified as hazardous.

¹substance with European Union level exposure limit in the workplace.

² additional phrase indicating type of hazard

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

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Section 4: First aid measures

4.1 Description of first aid measures

Skin contact: take off contaminated clothing, immediately wash skin with plenty of water. If there was no irritation, it is advisable to use soap. Consult a doctor, if disturbing symptoms occur.

Eye contact: consult a doctor if disturbing symptoms appear. Protect non-irritated eye, remove contact lenses. Rinse the irritated eye thoroughly with water for 10-15 minutes. Avoid strong stream of water - the risk of cornea damage.

Ingestion: do not induce vomiting. Call a doctor immediately and show container or label. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Never give anything by mouth to an unconscious person.

Inhalation: consult a doctor immediately. Remove the victim to fresh air, keep warm and at rest. If the victim is unconscious, make sure that airways are not obstructed and place the victim in recovery position. Perform artificial respiration or give oxygen if needed.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms may be delayed.

Eye contact: temporary irritation, tearing, burning sensation.

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

Inhalation: 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 or loss of consciousness may occur.

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

Doctor makes a decision regarding further medical treatment after thoroughly examination of the injured. Treat symptomatically.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: snow extinguisher (CO₂), foam extinguishers, dry powder (ABC or BC), water spray.


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, nitric oxides, organic vapors, etc. Avoid inhalation of combustion products that may pose a health risk.

5.3 Advice for firefighters

The protective 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. Extremely flammable liquid and vapour. Fire and heating causes increase of pressure in the tank – risk of explosion. Containers exposed to fire should be cooled from a safe distance with water spray. The affected area should be isolated and any dangerous for human health or life should be avoided. Product vapors are heavier than air and accumulate in the lower parts of the premises. Formation of explosive mixtures with air is highly probable - if such a danger occurs, order an immediate evacuation. Do not allow extinguishing water enter drains, surface water and groundwater.

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Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Limit the access for the outsiders into the breakdown area, until the suitable cleaning operations are completed. Ensure that the effects of breakdown are removed only by trained personnel. In case of large spills, isolate the affected 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, prohibit smoking. Danger of slipping on spilled product. Do not use sparking tools.

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 to the sewage system. Notify relevant emergency services. Replace the contaminated soil.

6.3 Methods and material for containment and cleaning up

Large spill: isolate the place of liquid accumulation, pump away the collected liquid.

Small spill: collect with incombustible materials which absorb liquids (for example: sand, soil, universal firming agents, silica, vermiculite, etc.) and place in labeled containers. Treat the collected material as waste. Clean and ventilate the affected 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

Handle in accordance with good occupational hygiene and safety practices. Use personal protective equipment. Avoid contact with eyes and skin. Before the break and after work wash your hands. Unused containers should be tightly closed. Ensure adequate ventilation in the premises where the product is used. Do not inhale the vapours. Keep away from the mouth. Do not allow to create the fumes in the concentrations higher than combustion limits. Eliminate sources of ignition - do not use open flames, no smoking, no sparking tools and clothing made of fabrics which are susceptible to electrify; protect the tanks from heat, install electrical equipment in explosion-proof technology.

7.2 Conditions for safe storage, including any incompatibilities

Keep in certified, properly labeled, closed in a cool, well ventilated warehouse. Protect against air, moisture and mechanical impurities. Protect from direct sunlight, avoid excessive heating. Keep away from food and drinks. Smoking, eating, using open fire and tools creating sparks is not allowed

7.3 Specific end use(s)

No information about other uses than those mentioned in subsection 1.2.


Section 8: Exposure controls/personal protection

8.1 Control parameters

| Specification | TWA 8 hour | STEL 15 min |
|--------------------------|------------------------|-------------|
| isopentane [CAS 78-78-4] | 3000 mg/m ³ | - |

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

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

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Recommended control procedures

Procedures Concerning the control over the dangerous components concentrations in the air and control over the air quality in the workplace - if they are available and Justified for the position - in Accordance with the European Standards, with the conditions within the exposure place and a proper test methodology adapted to the working conditions.

DNEL values for components

naphtha (petroleum), full-range alkylate [CAS 64741-64-6]

worker, inhalation, short-term exposure - systemic effects : 1300 mg/m³/15 min

worker, inhalation, long-term exposure - systemic effects : 840 mg/m³/8h

consumer, inhalation, short-term exposure – systemic effects : 1200 mg/kg

consumer, inhalation, long-term exposure - local effects : 180 mg/m³/24h

naphtha (petroleum), isomerization) [CAS: 64741-70-4]

worker, inhalation, short-term exposure - local effects :1100 mg/m³/15 min

worker, inhalation, short-term exposure - systemic effects :1300 mg/m³/15 min

worker, inhalation, long-term exposure - systemic effects :840 mg/m³/8h

consumer, inhalation, short-term exposure - local effects :640 mg/kg

consumer, inhalation, short-term exposure – systemic effects :1200 mg/kg

consumer, inhalation, long-term exposure - local effects :180 mg/m³/24h

8.2. Exposure controls

Work in accordance good occupational hygiene and safety practices. Do not eat, drink or smoke when using the product. Avoid contact with skin and eyes. Avoid breathing vapors or aerosols. Ensure good local and general ventilation at work stations – to ensure the maintenance of concentrations of hazardous components in the atmosphere below the exposure limit values. In case of spilling the substance on worker, showers and eye safety washers should be installed near the working place.



Eye/face protection

Wear protective goggles.

Hand and body protection

Use gloves resistant to the product (e.g. made from PVA or other material providing equal level of protection). In case of short term contact use protective gloves with effectiveness level 2 or higher (permeation time > 30 minutes). In case of long term contact use protective gloves with effectiveness level 6 (permeation time > 480 minutes). Wear protective clothing and shoes – antistatic, resistant to chemicals.



When using protective gloves during work with chemical products, it should be noted that the efficacy levels and corresponding breakthrough times do not indicate actual times of protection at a particular workplace, because the protection can be affected by many factors, e.g. temperature, other substances etc. If there are any signs of degradation, damage or change in appearance (colour, flexibility, shape), it is recommended to replace the gloves with a new pair. Please follow the manufacturer's instructions, not only in terms of gloves' usage, but also in terms of their cleaning, maintenance and storage. It is also important to know how to take off the gloves in order to avoid hands contamination.

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 ≤19% and/or the maximum concentration of toxic substance in the air is ≥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 spills, particularly 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**

| | |
|---|--|
| physical state: | liquid |
| colour: | light brown |
| odour: | characteristic for organic solvents |
| odour threshold: | not determined |
| pH: | not determined |
| melting point/freezing point: | not determined |
| initial boiling point and boiling range: | 30-200 °C |
| flash point: | < 0°C |
| evaporation rate: | not determined |
| flammability (solid, gas): | not applicable |
| upper/lower flammability or explosive limits: | not determined |
| vapour pressure (37,8°C): | 55-65 kPa |
| vapour density: | not applicable |
| density (15°C): | 680-720 kg/m ³ |
| solubility(ies): | not dissolve in water, dissolves in organic solvents |
| partition coefficient: n-octanol/water: | not determined |
| auto-ignition temperature: | not determined |
| decomposition temperature: | not determined |
| explosive properties: | not determined |
| oxidising properties: | not display |
| viscosity: | not determined |

9.2 Other information

No data.

Section 10: Stability and reactivity**10.1 Reactivity**

Product is reactive. Product vapours can create explosive mixtures with air. See subsections 10.3 – 10.5.

10.2 Chemical stability

The product is stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions are not known.

10.4 Conditions to avoid


Avoid heat sources, elevated temperature, open flames, direct sunlight, static charges.

10.5 Incompatible materials

Strong oxidants.

10.6 Hazardous decomposition products

Unknown.

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Section 11: Toxicological information

11.1 Information on toxicological effects

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 components

naphtha (petroleum), full-range alkylate [CAS 64741-64-6]

LD₅₀ (orally , rat) > 5000 mg/kg

LD₅₀ (inhalation, rat) > 5,6 mg/l (4h)

LD₅₀ (skin, rabbit) > 2000 mg/kg

Toxicity of mixture

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

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

STOT- single exposure

May cause drowsiness or dizziness.

STOT- repeated exposure

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

Aspiration hazard


May be fatal if swallowed and enters airways. Due to low viscosity, product can penetrate directly into lungs after ingestion or vomiting and it can cause serious lung damage (aspiration pneumonia).

Health effects of acute exposure

Mucous membrane irritation of eyes, tearing, hyperemia of conjunctiva, irritation of the respiratory tract, headache, dizziness, nausea, vomiting; with higher concentrations of vapor: disorders coordination, confusion, unconsciousness. Acute, severe and even fatal aviation gasoline poisonings occur during cleaning tanks, storage tanks and transfer to another container. There is a risk of aviation gasoline penetration through the soaked clothing and skin into the system. Aviation gasoline damages internal organs, including bone marrow and liver. Sensitizes the cardiac muscle. Leads to respiratory paralysis.

Health effects of chronic exposure

Most frequent symptoms of chronic poisoning: upper respiratory inflammation and skin inflammation (dryness, redness, cracking). Symptoms that are observed: decreased appetite, general weakness and conjunctivitis, symptoms connected with central nervous system.

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Section 12: Ecological information

12.1 Toxicity

naphtha (petroleum), full-range alkylate [CAS 64741-64-6]

| | |
|----------------------------|--|
| fish L50 (96 h) | 8,5 mg/l (Pimephales promelas) |
| crustaceans EL50 (48h) | 4,5 mg/l (Daphnia magna) |
| crustaceans NOEL (21 days) | 0,5 mg/l (Daphnia magna) |
| algae EL50 (72h) | 3,1 mg/l (Pseudokirchneriella subcapita) |

naphtha (petroleum), isomerization [CAS 64741-70-4]

| | |
|------------------------------------|---|
| fish LL ₅₀ (96 h) | 10 mg/l (<i>Oncorhynchus mykiss</i>) |
| crustaceans EL ₅₀ (48h) | 4,5 mg/l (<i>Daphnia magna</i>) |
| crustaceans NOEL (21 days) | 2,6 mg/l (<i>Daphnia magna</i>) |
| algae EL ₅₀ (72h) | 3,1 mg/l (<i>Pseudokirchneriella subcapita</i>) |

Mixture toxicity

Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

No data - UVCB substance.

12.3 Bioaccumulative potential

No data - UVCB substance.

12.4 Mobility in soil

Insoluble in water, it floats on the surface. Product is poorly 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

Substances contained in the product are not assessed as PBT and vPvB.

12.6 Other adverse effects

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 introduce into drains. Residues store in sealed, steel containers. Wastes classify as hazardous waste.

Disposal methods for used packing: reuse/recycle/eliminate empty containers in accordance with the local legislation. Only completely emptied packaging 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, 94/62/EC.

Section 14: Transport information


14.1 UN numer (ONZ Number)

UN 1203

14.2 UN proper shipping name

MOTOR SPIRIT



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14.3 Transport hazard class(es)

3



14.4 Packing group

II

14.5 Environmental hazards

Product is hazardous for environment according to transport regulations.

14.6 Special precautions for user

Use personal protective equipment 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 as amended

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 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).

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

A Chemical Safety Assessment is not required for mixtures.

Section 16: Other information

Full text of indicated H phrases mentioned in section 3

| | |
|--------|--|
| 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. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH066 | Repeated exposure may cause skin dryness or cracking |

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Clarification of aberrations and acronyms

| | |
|---------------------|---|
| Asp. Tox. 1 | Aspiration hazard cat. 1 |
| Aquatic Chronic 2,3 | Hazardous to the aquatic environment cat. 2,3 |
| Aquatic Acute 1 | Hazardous to the aquatic environment cat. 1 |
| Flam. Liq. 1 | Flammable liquid cat.1 |
| Skin Irrit. 2 | Skin irritation cat. 2 |
| STOT SE 3 | Specific target organ toxicity — single 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. Persons related to the transportation of the dangerous goods in compliance with the ADR Agreement should be properly trained within the scope of performed tasks (general training, on-the-job training and training related to the safety issues).

Other data

Classification was based on physicochemical studies and data on hazardous substances calculation method under the guidance of Regulation 1272/2008/EC (CLP) as amended. The acute toxicity estimate (ATEmix) was determined using the appropriate conversion value from Table 3.1.2 in Annex I to CLP.

Modifications: sections: 2,3,4,8,11,12,15,16
 Safety Data Sheet made by: Anna Królak
 „THETA” Doradztwo Techniczne

This card cancels and replaces all previous versions

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.