

	Safety Data Sheet	Date of update: 24.02.2023
	Smoke Oil	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

Trade name: Smoke Oil
 Chemical name: C18-C50 branched, cyclic and linear hydrocarbons – distillates / white mineral oil (petroleum) *
 CAS numer: 848301-69-9/8042-47-5*
 REACH registration number: 01-0000020163-82-0001/01-2119487078-27-XXXX*

* The indicated substances are in the product interchangeably according to the available assortment

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

Relevant identified uses: Smoke production during air shows by spraying on a hot exhaust end of a piston engine or exhaust gases of a jet engine or special steam generator with external power supply (using smoke making equipment is a necessity, because if the oil burned in the engine compartment, the smoke would be black).

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@thetaconsulting.pl

1.4 Emergency telephone number

112

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Asp. Tox. 1 H304

May be fatal if swallowed and enters airways.

2.2 Label elements

Hazard pictograms and signal words



DANGER

Hazard statements

H304 May be fatal if swallowed and enters airways.

Precautionary statements

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER /doctor.
 P331 Do NOT induce vomiting.
 P405 Store locked up.
 P501 Dispose of contents/container to an authorized waste disposal plant.

	Safety Data Sheet	Date of update: 24.02.2023
	Smoke Oil	Version:3.0/EN

2.3 Other hazards

Components of this mixture meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation. The substance is not 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 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

C18-C50 branched, cyclic and linear hydrocarbons – distillates / white mineral oil (petroleum)

Concentration range: ≤100%

CAS number: 848301-69-9/8042-47-5*

EC number: 482-220-0/232-455-8*

* The indicated substances are in the product interchangeably according to the available assortment

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. Do not use solvents and thinners. If irritation occurs, consult a doctor.

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.** Rinse mouth with water. Do not give milk, fats, alcohol to drink. Never give anything by mouth to an unconscious person. Call a doctor immediately and show container or label. In case of vomiting, keep the victim's head below the hip line to prevent vomiting into the lungs.

Inhalation: consult a doctor immediately. Remove victim to fresh air, keep warm and at rest. Symptoms may be delayed.

4.2 Most important symptoms and effects, both acute and delayed

Eye contact: high concentrations of vapors or direct contact with the liquid may cause irritation of the mucous membranes of the eyes, burning, tearing, redness.

Skin contact: degreasing; direct, prolonged contact with the liquid may cause drying, cracking, irritation and dermatitis.

Inhalation: causes headaches and dizziness, irritation of mucous membranes of the airways, nausea, vomiting.

Ingestion: abdominal pain, nausea, fever above 38.3 °C, shortness of breath, congestion in the chest, constant coughing or wheezing, difficulty in breathing. Due to the low viscosity, swallowing or vomiting may directly penetrate the lungs and cause serious lung damage (aspiration pneumonia). Symptoms may occur several hours after exposure.

4.3 Indication of any immediate medical attention and special treatment needed

The risk of chemical pneumonia. Doctor makes a decision regarding further medical treatment after thoroughly examination of the injured.

	Safety Data Sheet	Date of update: 24.02.2023
	Smoke Oil	Version:3.0/EN

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: CO₂ extinguishers, foam extinguishers, powder extinguishers, water spray.

Small fires extinguish with powder or snow extinguisher; extinguish large fires with extinguishing foam or dispersed currents of water; use remote sprinkler devices or fight fire from behind protective shields - the risk of explosion.

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 and other unidentified hydrocarbon degradation products. 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. 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

Limit the access for the outsiders into the breakdown area, until the suitable cleaning operations are completed. In case of large spills, isolate the affected area. Avoid direct contact with releasing product. Avoid breathing vapors. Use personal protective equipment. Provide adequate ventilation. 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 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. 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 vapors. 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 fabrics which are susceptible to electrify. During all transfer operations, use appropriate earthing and protection systems (the substance may be a potential battery of electricity).

7.2 Conditions for safe storage, including any incompatibilities

Store only in certified, properly labeled, closed containers on hard, impermeable surfaces made of materials resistant to hydrocarbons. Recommended packaging material: mild steel or high density polyethylene (HDPE). Do not expose polyethylene containers to high temperatures due to the risk of deformation. Do not use PVC packaging. Store in rooms equipped with a ventilation system.

	Safety Data Sheet	Date of update: 24.02.2023
	Smoke Oil	Version:3.0/EN

Keep containers away from heat, open flames and direct sunlight. Do not smoke or use open fire in the warehouse. and sparking tools. Work related to cleaning, controlling and maintaining the internal structure of storage tanks should be carried out by qualified personnel. Storage facilities should be designed so that in the event of a leak or spill, water and soil pollution will not occur.

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

Components of the product do not have occupational exposure limit values established on the Community level. 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.

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.

8.2. Exposure controls

Appropriate engineering controls

Work in accordance good occupational hygiene and safety practices. During operation, do not eat, drink or smoke. Avoid contact with skin and eyes. Avoid breathing vapors or aerosols. Ensure good local and general ventilation at work stations. Immediately take off contaminated clothing.

Individual protection measures, such as personal protective equipment

The necessity to use and selection of appropriate personal protective equipment should take into account the type of risk posed by the product, conditions at the workplace and the manner of handling the product. The personal protective equipment used must meet the requirements of Regulation (EU) 2016/425 and the relevant standards. The employer is obliged to provide protection measures appropriate to the activities performed and meeting all quality requirements, including their maintenance and cleaning. Any contaminated or damaged PPE must be replaced immediately.



Hand and body protection

Use protective gloves resistant to hydrocarbons (EN 374). Recommended material for gloves: eg. neoprene, nitrile rubber or PVC. 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.



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.

Eye/face protection

Use tight protective goggles in case of danger of eye contamination EN 166).

Respiratory protection

In case of insufficient ventilation and exposure to inhalation of mists or product vapors, wear half-mask / mask with filter type A.

Thermal hazards

Not applicable.

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	colorless
Odour	characteristic for petrolatum
Melting point/freezing point	ca. -6°C ²⁾
Boiling point or initial boiling point and boiling range	not determined
Flammability	nonflammable
Lower and upper explosion limit	1% obj./10% obj. ¹⁾ 0,9% obj./7% obj. ²⁾
Flash point	ca. 200°C ¹⁾ >182°C ²⁾
Auto-ignition temperature	>320°C ¹⁾
Decomposition temperature	not determined
pH	not determined
kinematic viscosity (100 °C):	2,6 mm ² /s (ISO 3104) ¹⁾
kinematic viscosity (40 °C):	9,3 mm ² /s (ISO 3104) ¹⁾ 14,5-17,5 mm ² /s ²⁾
kinematic viscosity (20 °C):	18 mm ² /s (ISO 3104) ¹⁾
Solubility	does not dissolve in water
Partition coefficient n-octanol/water (log value)	logPo/w>6 ¹⁾ logPo/w>3,5 ²⁾
Vapour pressure	<0,5 Pa (estimated value) ¹⁾ <0,013 kPa ²⁾
Density and/or relative density (15°C)	ok. 806 kg/m ³ (metoda: ISO 12185) ¹⁾ 842-855 kg/m ³ ²⁾
Relative vapour density	>1 (estimated value) ¹⁾ >2 (estimated value) ²⁾
Particle characteristics	not determined

9.2. Other information

Flow temperature: -39 ° C (method: ISO 3016) ¹⁾

¹⁾ data for C18-C50 branched, cyclic and linear hydrocarbons – distillates

²⁾ data for white mineral oil (petroleum)

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

It does not undergo dangerous polymerization. The product may soften some plastics.

10.2 Chemical stability

The product is stable under normal conditions.

	Safety Data Sheet	Date of update: 24.02.2023
	Smoke Oil	Version:3.0/EN

10.3 Possibility of hazardous reactions

Not known.

10.4 Conditions to avoid

Extreme temperatures, exposure to direct solar radiation.

10.5 Incompatible materials

Oxidants.

10.6 Hazardous decomposition products

Unknown.

Section 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

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.

LD₅₀ (orally , rat) >5 000 mg/kg

LD₅₀ (skin, rat) >5 000 mg/kg

LC₅₀ (inhalation, rat) >5 mg/l/4h

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

Skin corrosion/ irritation

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

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

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

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).

Information on likely routes of exposure

Routes of exposure: eye contact, skin contact, ingestion, inhalation. For more information – see subsection 4.2.

Symptoms related to the physical, chemical and toxicological characteristics

Health effects of acute exposure

Not known other than those listed in subsection 4.2.

Health effects of chronic exposure

Not known other than those listed in subsection 4.2.

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

Not known other than those listed in subsection 4.2.

	Safety Data Sheet	Date of update: 24.02.2023
	Smoke Oil	Version:3.0/EN

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

Substance is not classified as dangerous for environment.

Toxicity for fish	LL/EL/IL ₅₀	> 100 mg/l
	NOEC/NOEL	> 100 mg/l
Toxicity for invertebrates	LL/EL/IL ₅₀	> 100 mg/l
	NOEC/NOEL	> 100 mg/l
Toxicity for algae	LL/EL/IL ₅₀	> 100 mg/l
	NOEC/NOEL	> 100 mg/l

12.2 Persistence and degradability

Biodegradation is not expected.

12.3 Bioaccumulative potential

Product don't have the bioaccumulative potential (logPo/w) >3,5.

12.4 Mobility in soil

The product does not dissolve in water, floats on its surface creating a film that prevents the exchange of oxygen on the surface.

12.5 Results of PBT and vPvB assessment

Substance is not classified as PBT or vPvB.

12.6 Endocrine disrupting properties

The substance is not 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.

12.6 Other adverse effects

The mixture is not classified as hazardous to the ozone layer.

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. Do not dispose of municipal waste. The waste code should be given individually at the place of waste generation.

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. Empty, uncleaned packages may contain product residues (liquid, vapors) and may pose a fire / explosion hazard. Uncleaned packaging / containers must not be cut, drilled, grinded, welded, or performed in their vicinity.

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

	Safety Data Sheet	Date of update: 24.02.2023
	Smoke Oil	Version:3.0/EN

Section 14: Transport information

14.1 UN number or ID number

Substance is not classified as dangerous during transport.

14.2 UN proper shipping name

None.

14.3 Transport hazard class(es)

None.

14.4 Packing group

None.

14.5 Environmental hazards

The mixture is not hazardous for the environment in accordance with the criteria included in transport regulations and in accordance with the criteria covered by the UN Model Regulations.

14.6 Special precautions for user

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

14.7 Maritime transport in bulk according to IMO instruments

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.

	Safety Data Sheet	Date of update: 24.02.2023
	Smoke Oil	Version:3.0/EN

15.2 Chemical safety assessment

The substance safety was assessed. The relevant exposure scenarios are included to this SDS.

Section 16: Other information

Clarification of aberrations and acronyms

Asp. Tox. 1	Aspiration hazard cat. 1
PBT	Persistent, Bioaccumulative and Toxic substance
vPvB	very Persistent, very Bioaccumulative substance

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.

Other data

Classification was based on data on hazardous substances content established by calculation method under the guidance of Regulation 1272/2008/EC (CLP) as amended. The acute toxicity estimate (ATE_{mix}) for the classification of a substance in a mixture was determined using the appropriate conversion value from Table 3.1.2 (Annex I to CLP).

Modifications:	section: 1,2,8,9,11,12,13,14,15,16
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.