

Enginol

Article number REF 02006

Key Surgical GmbH

23738 Lensahn

Date printed 27.02.2020, Revision 16.04.2019

Version 01

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SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1 Product identifier

	Enginol
	Article number: REF 02006
IUPAC	White mineral oil (petroleum)
EINECS/ELINCS	232-455-8
CAS	8042-47-5

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

Raw material for industrial applications

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company	Key Surgical GmbH Zum Windpark 1 23738 Lensahn / GERMANY Phone +49 (0)4363 905900 Fax +49 (0)4363 90590590 Homepage www.keysurgical.de E-mail info@keysurgical.de
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Address enquiries to

Technical information	info@keysurgical.de
Safety Data Sheet	sdb@chemiebuero.de


1.4 Emergency telephone number

Company	+49 (0)4363 905900 Mo-Fr 8:00 - 16:00
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SECTION 2: Hazards identification
2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

Asp. Tox. 1: H304 May be fatal if swallowed and enters airways.

2.2 Label elements

Hazard pictograms	The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP). 
Signal word	DANGER
Contains:	White mineral oil (petroleum) EINECS: 232-455-8
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.

2.3 Other hazards

Human health dangers	Heated materials cause burns on the skin.
Other hazards	Further hazards were not determined with the current level of knowledge.

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SECTION 3: Composition / Information on ingredients

Product-type:

3.1 The product is a substance.

Range [%]	Substance
100	White mineral oil (petroleum)
	CAS: 8042-47-5, EINECS/ELINCS: 232-455-8, Reg-No.: 01-2119487078-27-XXXX
	GHS/CLP: Asp. Tox. 1: H304

Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Take off contaminated clothing and wash before reuse.
Adhere to personal protective measures when giving first aid.

Inhalation

Remove the victim into fresh air and keep him calm.
In the event of symptoms seek medical treatment.
Ensure fresh air. In respiratory arrest, artificial respiration. In case of respiratory distress give oxygen by qualified personnel, call doctor.

Skin contact

When in contact with the skin, clean with soap and water.
When using high-pressure equipment, injection of product can occur. If high-pressure injuries occur, immediately seek professional medical attention. Do not wait for symptoms to develop. For minor thermal burns, cool the burn. Hold the burned area under cold running water for at least five minutes, or until the pain subsides. Body hypothermia must be avoided. In the event of symptoms seek medical treatment.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
If hot product is splashed into the eye, it should be cooled down immediately to dissipate heat, under cold running water for at least 5 minutes. Immediately obtain specialist medical assessment and treatment for the casualty.

Ingestion

Do not induce vomiting.
Consult a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Eye contact:
Irritant effects
Burn.
Redness
Skin contact:
Irritant effects
Redness
Burn.
If swallowed:
Nausea, vomiting.
Diarrhoea

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
If swallowed or in the event of vomiting, risk of product entering the lungs.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

foam, dry powder, water spray jet, carbon dioxide
Sand.
soil

Extinguishing media that must not be used

Full water jet.

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5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.
Carbon monoxide (CO)

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Collect contaminated firefighting water separately, must not be discharged into the drains.
Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation.
Wear suitable protective equipment. For personal protection see SECTION 8.
High risk of slipping due to leakage/spillage of product.
Remove persons to safety.
Keep away from all sources of ignition.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.
Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3 Methods and material for containment and cleaning up

Take up with absorbent material (e.g. oil binder).
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Use only in well-ventilated areas.
Place the container in an upright position and protect it against falling over.
Open and handle container with care.
Avoid splash filling of bulk volumes when handling hot liquid product .
Avoid contact with eyes and skin. Use personal protective equipment.
The normal safety precautions for handling of molten, heated products must be observed.
Keep away from all sources of ignition - Refrain from smoking.
Take precautionary measures against static discharges.
Do not eat, drink or smoke when using this product.
Keep away from food and drink.
Wash hands before breaks and after work.
Use barrier skin cream.
Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.
Prevent penetration into the ground.
Do not store together with oxidizing agents.
Keep container tightly closed.
Keep container in a well-ventilated place.
Protect from contamination.
Keep away from heat, sparks and open flames.

7.3 Specific end use(s)

See product use, SECTION 1.2

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SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

Substance
White mineral oil (petroleum)
CAS: 8042-47-5, EINECS/ELINCS: 232-455-8, Reg-No.: 01-2119487078-27-XXXX
Long-term exposure: 5 mg/m ³ , oil mist TWA, ACGIH

DNEL

Substance
White mineral oil (petroleum), CAS: 8042-47-5
Industrial, inhalative, Long-term - systemic effects: 160 mg/m ³ .
Industrial, dermal, Long-term - systemic effects: 220 mg/kg kg/d.
general population, oral, Long-term - systemic effects: 40 mg/kg bw/day.
general population, dermal, Long-term - systemic effects: 93 mg/kg bw/day.
general population, inhalative, Long-term - systemic effects: 35 mg/m ³ .

8.2 Exposure controls

Additional advice on system design	<p>Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances. Use suitable discharges or exhaust ventilation if heat treatment is intended. Protection adapted to the manipulation of the fused product (danger of burning).</p>
Eye protection	<p>If there is a risk of splashing: Safety glasses. (EN 166:2001) Face shield. (EN 166)</p>
Hand protection	<p>The details concerned are recommendations. Please contact the glove supplier for further information. Gloves, heat-resistant (EN 407).</p>
Skin protection	<p>Protective clothing (EN 340) Wear protective clothing for operations with hot material: heat resistant coveralls (with trousers legs over boots and sleeves over cuffs of gloves), heat resistant heavy duty antiskid boots (e. g. leather).</p>
Other	<p>Avoid contact with eyes and skin. Do not breathe vapour/spray. Do not inhale smokes formed during heat treatment. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.</p>
Respiratory protection	<p>Breathing apparatus in the event of aerosol or mist formation. Short term: filter apparatus, filter A. (DIN EN 14387) Short term: filter apparatus, combination filter A-P2. (DIN EN 14387) Multi-purpose filter ABEK. (DIN EN 14387)</p>
Thermal hazards	<p>Heated materials cause burns on the skin.</p>
Delimitation and monitoring of the environmental exposition	<p>Protect the environment by applying appropriate control measures to prevent or limit emissions.</p>

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	liquid
Color	colourless
Odor	odourless
Odour threshold	not applicable
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	218 - 800
Flash point [°C]	> 180 (DIN ISO 2592)
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	< 0,01 (20 °C)
Density [g/ml]	0,852 (15 °C)(DIN 51757)
Bulk density [kg/m ³]	not applicable
Solubility in water	virtually insoluble
Partition coefficient [n-octanol/water]	> 4
Viscosity	16 mm ² /s (40 °C)(DIN EN ISO 3104)
Relative vapour density determined in air	No information available.
Evaporation speed	No information available.
Melting point [°C]	< -9 (ISO 3016)
Autoignition temperature [°C]	325 - 355
Decomposition temperature [°C]	> 350

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).
Decomposes begins at > 350 °C.

10.3 Possibility of hazardous reactions

No hazardous reactions known.

10.4 Conditions to avoid

To avoid thermal decomposition, do not overheat.
Excessive heating above the maximum recommended handling and storage temperature may cause degradation of the substance and evolution of irritant vapours and fumes.

10.5 Incompatible materials

Contact with strong oxidizers (peroxides, chromates, etc.) may cause a fire hazard.
A mixture with nitrates or other strong oxidisers (e.g. chlorates, perchlorates, liquid oxygen) may create an explosive mass.

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10.6 Hazardous decomposition products

Combustion (incomplete) will likely generate oxides of carbon, sulphur and nitrogen, as well as additional undetermined organic compounds of the same elements.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

Substance
White mineral oil (petroleum), CAS: 8042-47-5
LD50, dermal, Rabbit: >2000 mg/kg (OECD 402).
LD50, oral, Rat: >5000 mg/kg (OECD 401).
LC50, inhalative, Rat: >5000 mg/m ³ (4h) (OECD 403).

Serious eye damage/irritation	Based on the available information, the classification criteria are not fulfilled.
Skin corrosion/irritation	Based on the available information, the classification criteria are not fulfilled.
Respiratory or skin sensitisation	Based on the available information, the classification criteria are not fulfilled.
Specific target organ toxicity — single exposure	Based on the available information, the classification criteria are not fulfilled.
Specific target organ toxicity — repeated exposure	Based on the available information, the classification criteria are not fulfilled.
Mutagenicity	Based on the available information, the classification criteria are not fulfilled.
Reproduction toxicity	Based on the available information, the classification criteria are not fulfilled.
Carcinogenicity	Based on the available information, the classification criteria are not fulfilled.
Aspiration hazard	May be fatal if swallowed and enters airways. On basis of test data
General remarks	

Toxicological data of complete product are not available.

SECTION 12: Ecological information**12.1 Toxicity**

Substance
White mineral oil (petroleum), CAS: 8042-47-5
LC50, (96h), Leuciscus idus: >1000 mg/l (OECD 203).
NOEC, (21d), Daphnia sp.: >= 1000 mg/l.
NOEC, (28d), fish: >= 1000 mg/l.
LL50, (48h), Daphnia magna: >100 mg/l (OECD 202).
NOEL, (72h), Algae: >=100 mg/l (OECD 201).

12.2 Persistence and degradability

Behaviour in environment compartments	No information available.
Behaviour in sewage plant	Can be separated out mechanically in purification plants.
Biological degradability	31,13%, 28d - The product is not readily biodegradable.

12.3 Bioaccumulative potential

log Pow: > 4

12.4 Mobility in soil

No information available.

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12.5 Results of PBT and vPvB assessment

not applicable

12.6 Other adverse effects

Ecological data of complete product are not available.

Do not discharge product unmonitored into the environment or into the drainage.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Coordinate disposal with the authorities if necessary.

Waste no. (recommended)130205* mineral-based non-chlorinated engine, gear and lubricating oils
130899***Contaminated packaging**

Uncontaminated packaging may be taken for recycling.

Waste no. (recommended)

150110*

SECTION 14: Transport information**14.1 UN number****Transport by land according to ADR/RID** not applicable**Inland navigation (ADN)** not applicable**Marine transport in accordance with IMDG** not applicable**Air transport in accordance with IATA** not applicable**14.2 UN proper shipping name****Transport by land according to ADR/RID** NO DANGEROUS GOODS**Inland navigation (ADN)** NO DANGEROUS GOODS**Marine transport in accordance with IMDG** NOT CLASSIFIED AS "DANGEROUS GOODS"**Air transport in accordance with IATA** NOT CLASSIFIED AS "DANGEROUS GOODS"

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14.3 Transport hazard class(es)

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.4 Packing group

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.5 Environmental hazards

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

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**

EEC-REGULATIONS 2008/98/EC 2000/532/EC; 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014

TRANSPORT-REGULATIONS ADR (2019); IMDG-Code (2019, 39. Amdt.); IATA-DGR (2020)

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011).

- Observe employment restrictions for people Observe employment restrictions for young people.
Observe employment restrictions for mothers-to-be and nursing mothers.
The product is classified as non-hazardous in the sense of the 2012/18/EU (Seveso III) Directive.

- VOC (2010/75/CE) No information available.

Product registration number 01-2119487078-27-XXXX

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15.2 Chemical safety assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

16.1 Hazard statements (SECTION 03)

H304 May be fatal if swallowed and enters airways.

16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
 ATE = acute toxicity estimate
 CAS = Chemical Abstracts Service
 CLP = Classification, Labelling and Packaging
 DMEL = Derived Minimum Effect Level
 DNEL = Derived No Effect Level
 EC50 = Median effective concentration
 ECB = European Chemicals Bureau
 EEC = European Economic Community
 EINECS = European Inventory of Existing Commercial Chemical Substances
 EL50 = Median effective loading
 ELINCS = European List of Notified Chemical Substances
 EmS = Emergency Schedules
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IC50 = Inhibition concentration, 50%
 IMDG = International Maritime Code for Dangerous Goods
 IUCLID = International Uniform Chemical Information Database
 LC50 = Lethal concentration, 50%
 LD50 = Median lethal dose
 LC0 = lethal concentration, 0%
 LOAEL = lowest-observed-adverse-effect level
 LL50 = Median lethal loading
 LQ = Limited Quantities
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships
 NOAEL = No Observed Adverse Effect Level
 NOEC = No Observed Effect Concentration
 PBT = Persistent, Bioaccumulative and Toxic substance
 PNEC = Predicted No-Effect Concentration
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 STP = Sewage Treatment Plant
 TLV@/TWA = Threshold limit value – time-weighted average
 TLV@STEL = Threshold limit value – short-time exposure limit
 VOC = Volatile Organic Compounds
 vPvB = very Persistent and very Bioaccumulative

16.3 Other information

Classification procedure

Asp. Tox. 1: H304 May be fatal if swallowed and enters airways. (On basis of test data)

Modified position

none



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