

MK-dent PREMIUM SERVICE OIL (LU1011)

Print date 27.11.2023
Revision date 27.11.2023
Version 1.1 (en)
replaces version of 22.11.2017 (1.0)

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

1.1 Product identifier

Trade name/designation MK-dent PREMIUM SERVICE OIL (LU1011)

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

Sector of uses [SU]

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Use of the substance/mixture

Lubricant

1.3 Details of the supplier of the safety data sheet

Supplier

MK-dent GmbH
Marie-Curie-Straße 2
D-22941 Bargteheide
Telephone +49(0)4532-400490
Telefax +49(0)4532-4004910
E-mail info@mk-dent.com
Website www.mk-dent.com

Department responsible for information:
Produktinformation / Product Information
Telephone +49(0)4532-400490
Telefax +49(0)4532-4004910

1.4 Emergency telephone number

Poison information centre Göttingen (GIZ-Nord) +49 (0) 551-19 240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP] Classification procedure

Aerosol 1, H222 H229
Aquatic Chronic 2, H411

Hazard statements for physical hazards

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.

Hazard statements for environmental hazards

H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms



GHS02



GHS09

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Signal word

Danger

Hazard statements

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P102 Keep out of reach of children.
P251 Do not pierce or burn, even after use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P391 Collect spillage.
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Special rules for supplemental label elements for certain mixtures

EUH208 Contains peppermint oil. May cause allergic reactions.

Special rules on packaging

Tactile warning according to EN/ISO 11683.

2.3 Other hazards

Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

Description

ester oil

Hazardous ingredients

CAS No	EC No	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
74-98-6	200-827-9	propane	16.9 %	Flam. Gas 1; H220 Press. Gas	
106-97-8	203-448-7	butane	16.9 %	Flam. Gas 1; H220 Press. Gas	
75-28-5	200-857-2	isobutane	16.9 %	Flam. Gas 1; H220 Press. Gas	
540-84-1	208-759-1	2,2,4-trimethylpentane	3.8 %	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	ATE(oral): > 5000 mg/kg ATE(dermal): > 2000 mg/kg ATE(inhalation vapour): > 33.52 mg/L

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CAS No	EC No	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
84082-70-2	282-015-4	peppermint oil	0.45 %	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 Asp. Tox. 1; H304 Aquatic Chronic 3; H412	
REACH No.	Substance name				
01-2119486944-21	propane				
01-2119457965-22	2,2,4-trimethylpentane				
01-2119974601-36	peppermint oil				

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Remove contaminated, saturated clothing immediately.
In the event of persistent symptoms receive medical treatment.
Remove casualty to fresh air and keep warm and at rest.

Following inhalation

Remove casualty to fresh air and keep warm and at rest.
In the event of symptoms refer for medical treatment.

Following skin contact

Bei Berührung mit der Haut mit Wasser abspülen.
In case of irritation consult a doctor.

After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Following ingestion

Do NOT induce vomiting.
Medical treatment necessary.
Rinse mouth thoroughly with water.

4.2 Most important symptoms and effects, both acute and delayed

No data available

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Dry extinguishing powder
Carbon dioxide (CO₂)
Water spray jet

Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Fire gas of organic material has to be classed invariably as respiratory poison.
Nitrogen oxides (NO_x)
Carbon monoxide
Carbon dioxide (CO₂)

5.3 Advice for firefighters

Special protective equipment for firefighters

In case of fire: Wear self-contained breathing apparatus.
Breathing protection and eye protection is required for fire-fighting under presence of fume and vapour

Additional information

Cool endangered containers with water spray and possibly remove them from fire site.
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Avoid skin and eye contact
Do not inhale gases/vapours/aerosols.

For emergency responders

Remove persons to safety.
Keep people away and stay on the upwind side.
Personal protection equipment
Remove all sources of ignition.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

For containment

Take up with absorbent material (e.g. sand, kieselguhr, acid binder, general-purpose binder, sawdust).
After taking up the material dispose according to regulation.
Ensure adequate ventilation.

6.4 Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
Do not spray on an open flame or other ignition source.
Do not pierce or burn, even after use.
Do not breathe gas/vapour/aerosol.
Do not get in eyes, on skin, or on clothing.
Usual measures for fire prevention.
Take the usual precautions when handling with chemicals.

Advices on general occupational hygiene

Please observe work hygiene regulations.
When using do not eat, drink, smoke.
Remove contaminated, saturated clothing immediately.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep/Store only in original container.
Container under pressure. Protect from direct sunlight and temperatures above 50°C.

Storage class

2B Aerosol dispensers and lighters

Materials to avoid

Acid
alkalis
Oxidising agent

Further information on storage conditions

Keep away from heat and sources of ignition.

7.3 Specific end use(s)

Recommendation

See section 1.2

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

CAS No	EC No	Substance name	occupational exposure limit value
106-97-8	203-448-7	Butane	600 [ml/m ³ (ppm)] 1450 [mg/m ³] Short-term(ml/m ³) 750 Short-term(mg/m ³) 1810 EH40/2005
106-97-8	203-448-7	n-Butane	600 [ml/m ³ (ppm)] 1450 [mg/m ³] Short-term(ml/m ³) 750 Short-term(mg/m ³) 1810 (UK)

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DNEL worker

CAS No	Substance name	DNEL value	DNEL type	Remark
540-84-1	2,2,4-trimethylpentane	2035 mg/m ³	long-term inhalative (systemic)	
540-84-1	2,2,4-trimethylpentane	773 mg/kg	long-term dermal (systemic)	

DNEL Consumer

CAS No	Substance name	DNEL value	DNEL type	Remark
540-84-1	2,2,4-trimethylpentane	608 mg/m ³	long-term inhalative (systemic)	
540-84-1	2,2,4-trimethylpentane	699 mg/kg	long-term dermal (systemic)	
540-84-1	2,2,4-trimethylpentane	699 mg/kg	Long-term – oral, systemic effects	

8.2 Exposure controls

Appropriate engineering controls

Technical measures to prevent exposure

Sufficient ventilation and exhaustion.

Personal protection equipment

Eye/face protection

Eye glasses with side protection

The selected safety goggles must be in compliance with the specifications of EU Directive 89/686/EEC and the resultant standard EN 166.

Hand protection

Glove material specification [make/type, thickness, permeation time/life, wetting resistance]: Nitrilrubber (index 1)
The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374.

The exact breakthrough time of the glove material is to be inquired from the protection glove manufacturer and must be strictly adhered to.

Body protection:

Protective clothing

Respiratory protection

Respiratory protection necessary at:
insufficient exhaust
prolonged exposure

exceeding exposure limit values

Atemschutz nach EN 140 oder EN 136 verwenden: Filter Typ A & P

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state

Aerosol

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Colour
yellowish

Odour
characteristic

Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:			No data available
Melting point/freezing point	not determined		
Boiling point or initial boiling point and boiling range	not determined		
flammability	not determined		
Lower and upper explosion limit	not determined		
Flash point	-80 °C		
Auto-ignition temperature	400 °C		
Decomposition temperature			No decomposition if used as directed.
pH	not determined		
Viscosity	not determined		
Solubility(ies)	Water solubility		practically insoluble
Partition coefficient n-octanol/water (log value)	not determined		
Vapour pressure	not determined		
Density and/or relative density	not determined		
Relative vapour density	not determined		
particle characteristics	not determined		

9.2 Other information

Other safety characteristics

	Value	Method	Source, Remark
Explosive properties			Does not apply; nevertheless can be produced explosive vapour/air mixtures

Other information
none

SECTION 10: Stability and reactivity

10.1 Reactivity

The product is non-reactive under the recommended storage, use and temperature conditions.

10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

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10.3 Possibility of hazardous reactions

Reactions with strong acids and alkalies.
Reactions with oxidising agents.

10.4 Conditions to avoid

strong heating
Sunlight

10.5 Incompatible materials

strong acids
Oxidising agent
alkalis

10.6 Hazardous decomposition products

No risk of production of decomposition products when appropriately handled and stored.

SECTION 11: Toxicological information

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

Acute toxicity

Animal data

	Effective dose	Method,Evaluation	Source, Remark
Acute oral toxicity	CAS No540-84-1 2,2,4-trimethylpentane LD50: > 5000 mg/kg Species Rat	OECD 401	
Acute dermal toxicity	CAS No540-84-1 2,2,4-trimethylpentane LD50: > 2000 mg/kg Species Rabbit	OECD 402	
Acute inhalation toxicity	CAS No540-84-1 2,2,4-trimethylpentane Acute inhalation toxicity (vapour) LC50: > 33.52 mg/L Species Rat Exposure time 4 h	OECD 403	

Assessment/classification

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

Skin corrosion/irritation

Animal data

Result / Evaluation	Method	Source, Remark
slightly irritant but not relevant for classification.		

Assessment/classification

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

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Serious eye damage/irritation

Animal data

Result / Evaluation	Method	Source, Remark
slightly irritant but not relevant for classification.		

Assessment/classification

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

Sensitisation to the respiratory tract

Assessment/classification

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

Skin sensitisation

Assessment/classification

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

Germ cell mutagenicity

not determined

Carcinogenicity

not determined

Reproductive toxicity

not determined

Overall Assessment on CMR properties

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

STOT-single exposure

STOT SE 1 and 2

Other information

none

Assessment/classification

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

STOT-repeated exposure

Other information

none

Assessment/classification

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

Aspiration hazard

Assessment/classification

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

11.2 Information on other hazards

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Symptoms related to the physical, chemical and toxicological characteristics

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties			The substance/mixture does not contain any components that are to be classified according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 at levels of 0.1% or more have endocrine disrupting properties.

Other information

Other hazardous properties may not be excluded.
 The product is to be handled with the caution usual with chemicals.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

	Effective dose	Method,Evaluation	Source, Remark
Acute (short-term) fish toxicity	CAS No540-84-1 2,2,4-trimethylpentane LC50: 18.4 mg/L Species Oncorhynchus mykiss (Rainbow trout) Test duration 4 d	OECD 203	
	CAS No74-98-6 propane LC50: 24.11 mg/L Species fish Test duration 96 h	QSAR	
	CAS No106-97-8 butane LC50: 24.11 mg/L Species fish Test duration 96 h	QSAR	
	CAS No75-28-5 isobutane LC50: 24.11- 147.6 mg/L Species fish Test duration 96 h	calculated	
	CAS No540-84-1 2,2,4-trimethylpentane NOEC 0.82 mg/L Species Oncorhynchus mykiss (Rainbow trout) Test duration 28 d	QSAR	
Chronic (long-term) fish toxicity	not determined		
Acute (short-term) toxicity to crustacea	CAS No540-84-1 2,2,4-trimethylpentane EC50 0.4 mg/L Species Daphnia magna (Big water flea) Test duration 2 d		

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	Effective dose	Method,Evaluation	Source, Remark
	CAS No74-98-6 propane LC50 14.22 mg/L Species Daphnia magna (Big water flea) Test duration 48 h	QSAR	
	CAS No106-97-8 butane LC50 14.22 mg/L Species Daphnia magna (Big water flea) Test duration 48 h	QSAR	
	CAS No75-28-5 isobutane LC50 7.02- 69.43 mg/L Species Daphnia magna (Big water flea) Test duration 48 h	calculated	
	CAS No540-84-1 2,2,4- trimethylpentane NOEC 0.17 mg/L Species Daphnia magna (Big water flea) Test duration 21 d	OECD 211	
Chronic (long-term) toxicity to aquatic invertebrate	not determined		
Acute (short-term) toxicity to algae and cyanobacteria	CAS No540-84-1 2,2,4- trimethylpentane NOEC 0.658 mg/L Species Alge (Pseudokirchnerella subcapitata) Test duration 3 d	QSAR	
	CAS No74-98-6 propane EC50 7.71 mg/L Species Algae	QSAR	
	CAS No106-97-8 butane EC50 7.71 mg/L Species Algae Test duration 96 h	QSAR	
	CAS No75-28-5 isobutane EC50 7.71- 16.5 mg/L Species Algae Test duration 96 h	calculated	
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	not determined		
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms			No data available.

Assessment/classification

Toxic to aquatic life with long lasting effects.

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12.2 Persistence and degradability

	Value	Method	Source, Remark
Biodegradation	Degradation rate 22.4		2,2,4-Trimethylpentan Moderately/partially biodegradable.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties			The substance/this mixture does not contain any components, which have endocrine disrupting properties in quantities of 0.1% or more, in accordance with REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605.

12.7 Other adverse effects

Additional ecotoxicological information

Additional information

Do not allow uncontrolled discharge of product into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste codes/waste designations according to EWC/AVV

Waste code product	Waste name
150104	metallic packaging

Appropriate disposal / Product

Consult the appropriate local waste disposal expert about waste disposal.
Dispose of waste according to applicable legislation.

Appropriate disposal / Package

Dispose of in accordance with legal regulations.
Handle contaminated packages in the same way as the substance itself.

Remark

The waste code must be allocated in compliance with the EAK-regulation referring to the specific process and the sector.
The classification of waste is always the responsibility of the end user.

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SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	UN 1950	UN 1950	UN 1950
14.2 UN proper shipping name	AEROSOLS	AEROSOLS (2,2,4-trimethylpentane)	Aerosols, flammable
14.3 Transport hazard class(es)	2.1	2.1	2.1
14.4 Packing group	-	-	-
14.5 Environmental hazards	ENVIRONMENTALLY HAZARDOUS	ENVIRONMENTALLY HAZARDOUS Marine pollutant	ENVIRONMENTALLY HAZARDOUS

14.6 Special precautions for user

No data available

14.7 Maritime transport in bulk according to IMO instruments

not applicable

Land transport (ADR/RID)

UN number or ID number UN 1950
 UN proper shipping name AEROSOLS
 Transport hazard class(es) 2.1
 Hazard label(s) 2.1
 Classification code 5F
 Packing group -
 Environmental hazards ENVIRONMENTALLY HAZARDOUS
 Limited quantity (LQ) 1 L
 Special provisions 190, 327, 344, 625
 Tunnel restriction code D

Sea transport (IMDG)

UN number or ID number UN 1950
 UN proper shipping name AEROSOLS (2,2,4-trimethylpentane)
 Transport hazard class(es) 2.1
 Packing group -
 Environmental hazards ENVIRONMENTALLY HAZARDOUS
 Limited quantity (LQ) 1 L
 Marine pollutant Yes.
 EmS F-D, S-U

Air transport (ICAO-TI / IATA-DGR)

UN number or ID number UN 1950
 UN proper shipping name Aerosols, flammable
 Transport hazard class(es) 2.1
 Packing group -

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Environmental hazards ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

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

EU legislation

Authorisations

None of the components is listed.

Restrictions on use

None of the components is listed.

Other regulations (EU)

To follow:

Aerosol directive (75/324/EEC)

15.2 Chemical Safety Assessment

National regulations

A material safety assessment was not conducted.

SECTION 16: Other information

Abbreviations and acronyms

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Aerosol 1: Aerosols, Category 1

Aquatic Chronic 2: Long-term (chronic) aquatic hazard, Category 2

Key literature references and sources for data

Data sheets of the sub-supplier.

GESTIS Substance data base (<http://www.hvbg.de/d/bia/fac/zesp/zesp.htm>)

ECHA (European Chemical Agency)

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

The product is to be produced on the basis of the available hazard data of the ingredients, as defined in the classification criteria for mixtures for each hazard class in Annex I to Regulation (EC) No 1272/2008, classified.

Classification method:

Calculation

Test data

Additional information

National and local regulations concerning chemicals shall be observed.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

Each user is responsible for the implementation of the national special regulations.

Relevant H- and EUH-phrases (Number and full text)

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapour.

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H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.