

SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended.

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

1.1 Product identifier

Product name: LINDE HOCHLEISTUNGS-KETTENSpray 400M AER

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

Identified uses: Anticorrosion product

Uses advised against: No uses advised against identified.

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier

Fuchs Schmierstoffe GmbH
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1.4 Emergency telephone number:

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has been classified and labelled as hazardous according to regulation (EU) 1272/2008 (CLP).

Classification according to Regulation (EC) No 1272/2008 as amended.

Physical Hazards

Flammable aerosol

Category 1

H229: Pressurized container: May burst if heated.

Flammable aerosol

Category 1

H222: Extremely flammable aerosol.

Environmental Hazards

Chronic hazards to the aquatic environment

Category 3

H412: Harmful to aquatic life with long lasting effects.

Hazard summary

Physical Hazards:

Flammable aerosol.

2.2 Label Elements

Product name: LINDE HOCHLEISTUNGS-KETTENSpray 400M AER



Signal Words: Danger

Hazard Statement(s): H222: Extremely flammable aerosol.
H229: Pressurized container: May burst if heated.
H412: Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention: P102: Keep out of reach of children.
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.
P251: Do not pierce or burn, even after use.
P273: Avoid release to the environment.

Storage: P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

2.3 Other hazards: By handling of mineral oil products and chemical products no particular hazard is known when normal precautions (item 7) and personal protective equipment (item 8) are kept. The product may not be released into the environment without control.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

General information: Mixture of active ingredients with propellant

Chemical name	Identifier	Concentration *	REACH Registration No.	Notes
Butane	EINECS: 203-448-7	0,00 - <100,00%	01-2119474691-32	
Propane	EINECS: 200-827-9	0,00 - <100,00%	01-2119486944-21	
Isobutane (<0,1% 1,3-butadiene)	EINECS: 200-857-2	0,00 - <100,00%	01-2119485395-27	
Na sulphonate	EINECS: 271-781-5	1,00 - <5,00%		
phenolic antioxidant	EINECS: 204-881-4	0,10 - <1,00%	01-2119565113-46	
Triaryl phosphate, alkylated	EINECS: 273-065-8	0,10 - <1,00%		

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.

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Classification

Chemical name	Identifier	Classification
Butane	EINECS: 203-448-7	CLP: Flam. Gas 1;H220, Press. Gas H280
Propane	EINECS: 200-827-9	CLP: Flam. Gas 1;H220, Press. Gas H280
Isobutane (<0,1% 1,3-butadiene)	EINECS: 200-857-2	CLP: Flam. Gas 1;H220, Press. Gas Liq. Gas;H280
Na sulphonate	EINECS: 271-781-5	CLP: Eye Irrit. 2;H319
phenolic antioxidant	EINECS: 204-881-4	CLP: Aquatic Acute 1;H400, Aquatic Chronic 1;H410
Triaryl phosphate, alkylated	EINECS: 273-065-8	CLP: Aquatic Chronic 1;H410, Aquatic Acute 1;H400

CLP: Regulation No. 1272/2008.

For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

General: Instantly remove any clothing soiled by the product.

4.1 Description of first aid measures

Inhalation: Supply fresh air; consult doctor in case of symptoms.

Eye contact: Promptly wash eyes with plenty of water while lifting the eye lids.

Skin Contact: Wash with soap and water.

Ingestion: Rinse mouth thoroughly.

4.2 Most important symptoms and effects, both acute and delayed: Dizziness Freeze burns

4.3 Indication of any immediate medical attention and special treatment needed Get medical attention if symptoms occur.

SECTION 5: Firefighting measures

General Fire Hazards: Use water spray to keep fire-exposed containers cool. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

5.1 Extinguishing media

Suitable extinguishing media: CO₂, fire extinguishing powder or fog like water spraying. Extinguish larger fires with alcohol resistant foam or spray water with suitable surfactant added

Unsuitable extinguishing media: Water with a full water jet.

5.2 Special hazards arising from the substance or mixture: Danger of explosion with aerosol cans.

Product name: LINDE HOCHLEISTUNGS-KETTENSpray 400M AER

5.3 Advice for firefighters

Special fire fighting procedures:

Move container from fire area if it can be done without risk. Dispose of fire debris and contaminated fire fighting water in accordance with official regulations. Collect contaminated fire fighting water separately. It must not enter drains.

Special protective equipment for fire-fighters:

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind. Keep away from sources of ignition - No smoking.

6.2 Environmental Precautions:

Avoid release to the environment. Prevent further leakage or spillage if safe to do so.

6.3 Methods and material for containment and cleaning up:

Scrape up spillage or absorb with absorbing material. Stop the flow of material, if this is without risk. Dispose of the material collected according to regulations.

6.4 Reference to other sections:

See Section 8 of the SDS for Personal Protective Equipment. See Section 7 for information on safe handling See Section 13 for information on disposal.

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not eat, drink or smoke when working with the product. Take usual precautions when handling mineral oil products or chemical products. Avoid contact with flame and heat source, prevent contact with direct sunlight Use only in well-ventilated areas.

7.2 Conditions for safe storage, including any incompatibilities:

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Local regulations concerning handling and storage of waterpolluting products have to be followed. Local regulations for the storage and handling of aerosol cans and flammable liquids have to be kept. Keep away from heat/sparks/hot surfaces. - No smoking.

7.3 Specific end use(s):

not applicable

Storage Class:

2 B, Aerosols

Product name: LINDE HOCHLEISTUNGS-KETTENSPRAY 400M AER

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational Exposure Limits

Chemical name	type	Exposure Limit Values	Source
Butane	TWA	600 ppm 1.450 mg/m3	UK. EH40 Workplace Exposure Limits (WELs) (12 2011)
Butane	STEL	750 ppm 1.810 mg/m3	UK. EH40 Workplace Exposure Limits (WELs) (12 2011)

8.2 Exposure controls

Appropriate engineering controls:

Provide adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General information:

Wash hands before breaks and after work. Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. The usual precautionary measures should be adhered to in handling the chemicals or the mineral oil products.

Eye/face protection:

Safety glasses (EN 166) recommended during refilling.

Skin protection

Hand Protection:

Material: Nitrile butyl rubber (NBR).
Min. Breakthrough time: \geq 480 min
Recommended thickness of the material: \geq 0,38 mm

Avoid long-term and repeated skin contact. Suitable gloves can be recommended by the glove supplier. Use skin protection cream for preventive skin protection. Protective gloves, where permitted in acc. to safety directions. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Other:

Do not carry cleaning cloths impregnated with the product in trouser pockets. Wear suitable protective clothing.

Respiratory Protection:

Ensure good ventilation/exhaustion at the workplace. Avoid breathing vapour/ aerosol.

Thermal hazards:

Not known.

Hygiene measures:

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

Environmental Controls:

No data available.

Product name: LINDE HOCHLEISTUNGS-KETTENSpray 400M AER

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state:	Aerosols
Form:	Aerosols
Color:	Yellow
Odor:	Characteristic
Odor Threshold:	Not applicable for mixtures
pH:	not applicable
Freezing point:	Not applicable for mixtures
Boiling Point:	not applicable
Flash Point:	< 0 °C
Evaporation Rate:	Not applicable for mixtures
Flammability (solid, gas):	Value not relevant for classification
Flammability Limit - Upper (%)-:	Not applicable for mixtures
Flammability Limit - Lower (%)-:	Not applicable for mixtures
Vapor pressure:	Not applicable for mixtures
Vapor density (air=1):	Not applicable for mixtures
Density:	0,69 g/cm ³ (15 °C)
Solubility(ies)	
Solubility in Water:	Insoluble in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	Not applicable for mixtures
Autoignition Temperature:	Value not relevant for classification
Decomposition Temperature:	Value not relevant for classification
Flow time	Value not relevant for classification
Explosive properties:	Value not relevant for classification
Oxidizing properties:	Value not relevant for classification
9.2 Other information	No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity:	Stable under normal use conditions.
10.2 Chemical Stability:	Stable under normal use conditions.
10.3 Possibility of hazardous reactions:	Stable under normal use conditions.
10.4 Conditions to avoid:	Stable under normal use conditions.
10.5 Incompatible Materials:	Strong oxidizing substances. Strong acids. Strong bases.
10.6 Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

Product name: LINDE HOCHLEISTUNGS-KETTENSpray 400M AER

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Oral

Product:

Not classified for acute toxicity based on available data.

Specified substance(s)

phenolic antioxidant

LD 50 (Rat): 2.930 mg/kg (OECD 401)

Triaryl phosphate,
alkylated

LD 50 (Rat): > 5.000 mg/kg

Dermal

Product:

Not classified for acute toxicity based on available data.

Specified substance(s)

phenolic antioxidant

LD 50 (Rat): > 5.000 mg/kg (OECD 402)

Triaryl phosphate,
alkylated

LD 50 (Rat): > 2.001 mg/kg

Inhalation

Product:

Not classified for acute toxicity based on available data.

Specified substance(s)

Butane

LC 50 (Rat, 4 h): 658 mg/l
Gas

Skin Corrosion/Irritation:

Product:

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

Serious Eye Damage/Eye Irritation:

Product:

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

Respiratory or Skin Sensitization:

Product:

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

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

Specified substance(s)

phenolic antioxidant

No sensitizing effect (guinea pig); OECD 406

Germ Cell Mutagenicity

Product:

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

Carcinogenicity

Product:

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

Reproductive toxicity

Product name: LINDE HOCHLEISTUNGS-KETTENSpray 400M AER

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

Specific Target Organ Toxicity - Single Exposure

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

Specific Target Organ Toxicity - Repeated Exposure

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

Aspiration Hazard

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

Other adverse effects: No data available.

SECTION 12: Ecological information

12.1 Toxicity

Acute toxicity

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

Fish

Specified substance(s)

Isobutane (<0,1% 1,3-butadiene) LC 50 (Fish, 96 h): 28 mg/l

phenolic antioxidant LC 50 (Fish, 96 h): > 0,57 mg/l (OECD 203)

Triaryl phosphate, alkylated LC 50 (Fish, 96 h): 0,8 mg/l

Aquatic Invertebrates

Specified substance(s)

Isobutane (<0,1% 1,3-butadiene) EC 50 (Water Flea, 48 h): 16,3 mg/l

phenolic antioxidant EC 50 (Water Flea, 48 h): > 0,17 mg/l

Triaryl phosphate, alkylated EC 50 (Water Flea, 48 h): 0,202 mg/l

Chronic Toxicity Product: Based on available data, the classification criteria are met.

Aquatic Invertebrates

Specified substance(s)

phenolic antioxidant NOEC (Water Flea, 21 d): > 0,39 mg/l

Toxicity to Aquatic Plants

Specified substance(s)

Isobutane (<0,1% 1,3-butadiene) EC 50 (Alga, 72 h): 8,6 mg/l

phenolic antioxidant EC 50 (Alga, 72 h): > 0,42 mg/l

12.2 Persistence and Degradability

Product name: LINDE HOCHLEISTUNGS-KETTENSpray 400M AER

Biodegradation

Product: Not applicable for mixtures
Specified substance(s)
 phenolic antioxidant 30 % (OECD 302C)

12.3 Bioaccumulative potential

Product: Not applicable for mixtures
Specified substance(s)
 phenolic antioxidant May be accumulated in organism

12.4 Mobility in soil:

Product: Not applicable for mixtures

12.5 Results of PBT and vPvB assessment:

The product does not contain any substances fulfilling the PBT/vPvB criteria.

12.6 Other adverse effects:

Harmful to aquatic life with long lasting effects.

Water Hazard Class (WGK):

WGK 1: slightly water-endangering.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

General information: Dispose in accordance with all applicable regulations.

Disposal methods: Discharge, treatment, or disposal may be subject to national, state, or local laws.

European Waste Codes

16 05 04*: Gases in pressure containers (including halons) containing dangerous substances.

SECTION 14: Transport information

ADR/RID

14.1 UN Number: UN 1950
 14.2 UN Proper Shipping Name: AEROSOLS
 14.3 Transport Hazard Class(es)
 Class: 2
 Label(s): 2.1
 Hazard No. (ADR): -
 Tunnel restriction code: (D)
 14.4 Packing Group: -
 14.5 Environmental hazards: -
 14.6 Special precautions for user: -

Product name: LINDE HOCHLEISTUNGS-KETTENSpray 400M AER

ADN

14.1 UN Number: UN 1950
 14.2 UN Proper Shipping Name: AEROSOLS
 14.3 Transport Hazard Class(es)
 Class: 2
 Label(s): 2.1
 14.3 Packing Group: –
 14.5 Environmental hazards: –
 14.6 Special precautions for user: –

IMDG

14.1 UN Number: UN 1950
 14.2 UN Proper Shipping Name: AEROSOLS
 14.3 Transport Hazard Class(es)
 Class: 2.1
 Label(s): 2.1
 EmS No.: F-D, S-U
 14.3 Packing Group: –
 14.5 Environmental hazards: –
 14.6 Special precautions for user: –

IATA

14.1 UN Number: UN 1950
 14.2 Proper Shipping Name: Aerosols, flammable
 14.3 Transport Hazard Class(es):
 Class: 2.1
 Label(s): 2.1
 14.4 Packing Group: –
 14.5 Environmental hazards: –
 14.6 Special precautions for user: –

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:

EU Regulations

Regulation (EC) No. 2037/2000 Substances that deplete the ozone layer: none

Regulation (EC) No. 850/2004 on persistent organic pollutants: none

15.2 Chemical safety assessment: No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Revision Information: Vertical lines in the margin indicate an amendment.

Product name: LINDE HOCHLEISTUNGS-KETTENSPRAY 400M AER

Wording of the H-statements in section 2 and 3

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurized container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H319	Causes serious eye irritation.
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.

Other information:

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies. The classification results from the Conventional Method mentioned in regulation EU 1272/2008 (CLP).

Revision Date:

13.02.2017

Disclaimer:

The data contained in this safety data sheet are based on our current knowledge and experience and are given to the best of our knowledge and belief. It characterizes the product only with regard to safety requirements for handling, transport and disposal. The data do not describe the product's properties (tech. product specification). Neither should any agreed property nor the suitability of the product for any specific technical application be deduced from the data contained in this safety data sheet. Modifications on this document are not allowed. The data are not transferable to other products. In the case of mixing the product with other products or in the case of processing, the data in this safety data sheet are not necessarily valid for the new-made material. It is the responsibility of the recipient of the product to observe federal, state and local law. Please contact us to obtain up-to-date safety data sheets. This document was issued electronically and has no signature.