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

1.1. Product identifier

Innotech Helles Ketten- u. Seilfett 135

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

Use of the substance/mixture

Aerosol - Lubricating agent
Professional uses

1.3. Details of the supplier of the safety data sheet

Company name:	innotech-Vertriebs GmbH	
Street:	Junkerstrasse 16	
Place:	D-93055 Regensburg	
Telephone:	+49 (0) 941 70 08 78	Telefax: +49 (0) 941 70 46 60
e-mail:	info@innotech-r.de	
Contact person:	Mr. Massen	
Internet:	www.innotech-r.de	
Responsible Department:	sales department	

1.4. Emergency telephone number:

+49 (0) 941 70 08 78
Only available during office hours.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
Aerosol: Aerosol 1
Hazard Statements:
Extremely flammable aerosol.
Pressurised container: May burst if heated.

2.2. Label elements

Regulation (EC) No. 1272/2008

Signal word: Danger

Pictograms:

Hazard statements

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

Precautionary statements

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

2.3. Other hazards

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
106-97-8	Butane			25 - < 30 %
	203-448-7		01-2119474691-32	
	Flam. Gas 1, Liquefied gas; H220 H280			
109-87-5	Dimethoxymethane			15 - < 20 %
	203-714-2		01-2119664781-31	
	Flam. Liq. 2; H225			
74-98-6	Propane			12.5 - < 15 %
	200-827-9		01-2119486944-21	
	Flam. Gas 1, Liquefied gas; H220 H280			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion

Observe risk of aspiration if vomiting occurs. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2), Foam, Extinguishing powder.

Unsuitable extinguishing media

Water.

5.2. Special hazards arising from the substance or mixture

Extremely flammable aerosol. Vapours can form explosive mixtures with air.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. 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

Remove all sources of ignition.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion risk.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Do not pierce or burn, even after use.

Advice on protection against fire and explosion

Do not spray on naked flames or any incandescent material. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

Further information on handling

Heating causes rise in pressure with risk of bursting.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances.

Further information on storage conditions

Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

Aerosol - Lubricating agent

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
106-97-8	Butane	600	1450		TWA (8 h)	WEL
		750	1810		STEL (15 min)	WEL
109-87-5	Dimethoxymethane	1000	3160		TWA (8 h)	WEL
		1250	3950		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
109-87-5	Dimethoxymethane			
Worker DNEL, long-term		inhalation	systemic	126,6 mg/m³
Worker DNEL, long-term		dermal	systemic	17,9 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	31,5 mg/m³
Consumer DNEL, long-term		dermal	systemic	18,1 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	18,1 mg/kg bw/day

PNEC values

CAS No	Substance	
Environmental compartment		Value
109-87-5	Dimethoxymethane	
Freshwater		14,577 mg/l
Marine water		1,477 mg/l
Freshwater sediment		13,135 mg/kg
Micro-organisms in sewage treatment plants (STP)		10000 mg/l
Soil		4,654 mg/kg

8.2. Exposure controls

Appropriate engineering controls

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

Protective and hygiene measures

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

Eye/face protection

Wear eye protection/face protection. Suitable eye protection: Eye glasses with side protection DIN EN 166

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
Suitable material: FKM (fluoro rubber) (0,7 mm), Breakthrough time (maximum wearing time):120 min.EN ISO 374
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear anti-static footwear and clothing

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Suitable respiratory protection apparatus: Combination filtering device (EN 14387) A-P2

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	light red
Odour:	like: Ether
pH-Value:	not applicable
Changes in the physical state	
Melting point:	not applicable
Initial boiling point and boiling range:	< -20 °C
Flash point:	< -20 °C
Sustaining combustion:	No data available
Flammability	
Solid:	not applicable
Gas:	not applicable

Explosive properties

Heating may cause an explosion. In use, may form flammable/explosive vapour-air mixture.

Lower explosion limits:	2,2 vol. %
Upper explosion limits:	19,9 vol. %
Ignition temperature:	260 °C
Auto-ignition temperature	
Solid:	not applicable
Gas:	not applicable
Decomposition temperature:	not determined

Oxidizing properties

Not oxidising.

Vapour pressure:	not determined
Density (at 20 °C):	0,725 g/cm³
Water solubility: (at 20 °C)	practically insoluble

Solubility in other solvents

not determined

Partition coefficient:	not determined
Viscosity / kinematic:	not applicable
Vapour density:	not determined
Evaporation rate:	not determined

9.2. Other information

Solid content:	not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable aerosol.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
109-87-5	Dimethoxymethane				
	oral	LD50 6423 mg/kg	Rat		
	dermal	LD50 > 5000 mg/kg	Rabbit	Study report (1989)	OECD Guideline 402

Irritation and corrosivity

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

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

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

SECTION 12: Ecological information

12.1. Toxicity

The product is not: Ecotoxic.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
106-97-8	Butane						
	Acute fish toxicity	LC50 mg/l	49,9	96 h	Fish, no other information	United States Environmental Protection A	The Ecosar class program has been develo
	Acute algae toxicity	ErC50 mg/l	19,37	96 h	Algae	USEPA OPPT Risk Assessment Division (200	Calculation using ECOSAR Program v1.00.
	Acute crustacea toxicity	EC50 mg/l	69,43	48 h	Daphnia sp.	USEPA OPPT Risk Assessment Division (200	Calculation using ECOSAR Program v1.00.
109-87-5	Dimethoxymethane						
	Acute fish toxicity	LC50 mg/l	> 1000	96 h	Brachydanio rerio	OECD Guideline 203	
	Acute algae toxicity	ErC50 mg/l	9120	72 h	Pseudokirchneriella subcapitata	Study report (2015)	other: REACH guidance on QSAR R6, May 20
	Acute crustacea toxicity	EC50 mg/l	> 1200	48 h	Daphnia magna	Study report (1991)	OECD Guideline 202
	Fish toxicity	NOEC mg/l	450,281	30 d	not relevant	Study report (2012)	other: REACH guidance on QSAR R6, May 20
	Algea toxicity	NOEC mg/l	145,77	30 d	algae	Study report (2012)	other: REACH guidance on QSAR R6, May 20
	Crustacea toxicity	NOEC mg/l	150,5	30 d	Daphnia magna	Study report (2012)	other: REACH guidance on QSAR R6, May 20
74-98-6	Propane						
	Acute fish toxicity	LC50 mg/l	49,9	96 h	Fish, no other information	United States Environmental Protection A	The Ecosar class program has been develo
	Acute algae toxicity	ErC50 mg/l	19,37	96 h	Algae	USEPA OPPT Risk Assessment Division (200	Calculation using ECOSAR Program v1.00.
	Acute crustacea toxicity	EC50 mg/l	69,43	48 h	Daphnia sp.	USEPA OPPT Risk Assessment Division (200	Calculation using ECOSAR Program v1.00.

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
106-97-8	Butane	1,09
109-87-5	Dimethoxymethane	0
74-98-6	Propane	1,09

BCF

CAS No	Chemical name	BCF	Species	Source
109-87-5	Dimethoxymethane	0,6		Handbook of Chemical

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances; hazardous waste

Contaminated packaging

Completely emptied packages can be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 1950

14.2. UN proper shipping name: AEROSOLS

14.3. Transport hazard class(es): 2

14.4. Packing group: -

Hazard label: 2.1

Classification code: 5F
Special Provisions: 190 327 344 625
Limited quantity: 1 L
Excepted quantity: E0
Transport category: 2
Tunnel restriction code: D

Inland waterways transport (ADN)

14.1. UN number: UN 1950

14.2. UN proper shipping name: AEROSOLS

14.3. Transport hazard class(es): 2

14.4. Packing group: -

Hazard label: 2.1

Classification code: 5F
Special Provisions: 190 327 344 625
Limited quantity: 1 L
Excepted quantity: E0

Marine transport (IMDG)

14.1. UN number: UN 1950

14.2. UN proper shipping name: AEROSOLS

14.3. Transport hazard class(es): 2.1

14.4. Packing group: -

Hazard label: 2.1

Special Provisions: 63, 190, 277, 327, 344, 381, 959
Limited quantity: 1000 mL
Excepted quantity: E0
EmS: F-D, S-U

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1950

14.2. UN proper shipping name: AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es): 2.1

14.4. Packing group: -

Hazard label: 2.1

Special Provisions: A145 A167 A802
Limited quantity Passenger: 30 kg G
Passenger LQ: Y203
Excepted quantity: E0

IATA-packing instructions - Passenger: 203
IATA-max. quantity - Passenger: 75 kg
IATA-packing instructions - Cargo: 203
IATA-max. quantity - Cargo: 150 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Warning: Flammable gases.

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 regulatory information

2010/75/EU (VOC):	55 % (398,75 g/l)
2004/42/EC (VOC):	55 % (398,75 g/l)
Information according to 2012/18/EU (SEVESO III):	P3a FLAMMABLE AEROSOLS

Additional information

To follow: 850/2004/EC, 1107/2009/EC, 649/2012/EC
Aerosol directive (75/324/EEC).

National regulatory information

Employment restrictions:	Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
Water contaminating class (D):	1 - slightly water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,4,6,7,8,9,14,15,16.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic

vPvB: very persistent, very bioaccumulative
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
ICAO: International Civil Aviation Organization
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
VOC: Volatile Organic Compounds
SVHC: Substance of Very High Concern

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

Classification	Classification procedure
Aerosol 1; H222-H229	On basis of test data

Relevant H and EUH statements (number and full text)

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singulary responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)