# according to 1907/2006/EC, Article 31

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

- · 1.1 Product identifier
- · Trade name: Zettex Superlube Hexaflon
- · Article number:
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Sector of Use

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU21 Consumer uses: Private households / general public / consumers

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

- · Product category PC24 Lubricants, greases, release products
- · Process category

PROC7 Industrial spraying

PROC11 Non industrial spraying

- · Application of the substance / the mixture Lubricant
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Zettex Europe BV

Plaza 20, 4782 SK Moerdijk

The Netherlands

+31(0)888-938839

info@zettex.nl

www.zettex.nl

• **1.4 Emergency telephone number:** +31(0)888-938839

### **SECTION 2: Hazards identification**

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms







GHS02

GHS07

GHS09

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#### · Signal word Danger

#### · Hazard-determining components of labelling:

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

Pentane

#### · Hazard statements

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

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

#### · Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

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.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P321 Specific treatment (see on this label).

P362+P364 Take off contaminated clothing and wash it before reuse.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

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.

#### · 2.3 Other hazards

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

### **SECTION 3: Composition/information on ingredients**

- · 3.2 Mixtures
- · Description: Active substance with propellant

· Dangerous components:		
CAS: 92128-66-0 EC number: 921-024-6 Reg.nr.: 01-2119475514-35	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	25-<50%
CAS: 109-66-0 EINECS: 203-692-4 Reg.nr.: 01-2119459286-30	Pentane Flam. Liq. 1, H224; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H336	10-<25%
CAS: 106-97-8 EINECS: 203-448-7 Reg.nr.: 01-2119474691-32	butane (containing < 0.1% butadiene (203-450-8)) Flam. Gas 1, H220; Press. Gas (Comp.), H280	10-<25%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21	propane Flam. Gas 1, H220; Press. Gas (Comp.), H280	10-<25%
CAS: 75-28-5 EINECS: 200-857-2 Reg.nr.: 01-2119485395-27	isobutane (containing < 0,1 % butadiene (203-450-8)) Flam. Gas 1, H220; Press. Gas (Comp.), H280	2.5-<10%

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· Additional information:

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#### **SECTION 4: First aid measures**

- · 4.1 Description of first aid measures
- · After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: Do not induce vomiting; call for medical help immediately.
- · 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

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

No further relevant information available.

#### **SECTION 5: Firefighting measures**

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

Water haze

Fire-extinguishing powder

Carbon dioxide

Alcohol resistant foam

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment: Mount respiratory protective device.

#### **SECTION 6: Accidental release measures**

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

 $\cdot$  6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· 6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

# **SECTION 7: Handling and storage**

- · 7.1 Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- · Information about fire and explosion protection:

Do not spray onto a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

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- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles:

Store in a cool location.

Observe official regulations on storing packagings with pressurised containers.

· Information about storage in one common storage facility:

Observe official regulations on storing packagings with pressurised containers.

· Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

· 7.3 Specific end use(s) No further relevant information available.

### **SECTION 8: Exposure controls/personal protection**

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:			
109-66-0 Pentane			
WEL	Long-term value: 1800 mg/m³, 600 ppm		
106-9	106-97-8 butane (containing < 0.1% butadiene (203-450-8))		
WEL	Short-term value: 1810 mg/m³, 750 ppm Long-term value: 1450 mg/m³, 600 ppm Carc (if more than 0.1% of buta-1.3-diene)		
74-98	74-98-6 propane		
WEL	WEL Long-term value: 1800 mg/m <sup>3</sup>		
75-28	75-28-5 isobutane (containing < 0,1 % butadiene (203-450-8))		
WEL	WEL Short-term value: 2400 mg/m³ Long-term value: 1900 mg/m³		
· DNEI	· DNELs		
92128	92128-66-0 Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane		
Oral		DNEL Long term-systemic	699 mg/kg bw/day (Consumer)
Derma	al	DNEL Long term-systemic	699 mg/kg bw/day (Consumer)
			773 mg/kg bw/day (Worker)
Inhala	tive	DNEL Long term-systemic	608 mg/m3 (Consumer)

2035 mg/m3 (Worker)

109-66-0 Pentane

Oral	DNEL Long term-systemic	214 mg/kg bw/day (Consumer)
Dermal	DNEL Long term-systemic	214 mg/kg bw/day (Consumer)
		432 mg/kg bw/day (Worker)
Inhalative	DNEL Long term-systemic	643 mg/m3 (Consumer)
		3000 mg/m3 (Worker)

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

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Avoid contact with the eyes and skin.

#### · Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Filter AX/P2 Filter A/P2

Use suitable respiratory protective device in case of insufficient ventilation.

Filter A2P2

· Protection of hands:



Protective gloves

Solvent resistant gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

#### · Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.5 \text{ mm}$ 

#### · Penetration time of glove material

For continuous contact we recommend gloves with breakthrough time of at least 240 minutes, with the preference given to a breakthrough time greater than 480 minutes. For short-term or splash guard we recommend the same. We are aware that suitable gloves that offer this level of protection may not be available. In that case, a shorter breakthrough time are acceptable as long as the procedures governing maintenance and timely replacement are followed. The thickness of the gloves is not a good measure of the resistance of the gloves against a chemical substance, because this depends on the exact composition of the material from which the gloves are made.

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

#### · Eye protection:

Safety glasses



Tightly sealed goggles

· **Body protection:** Use protective suit. (EN-13034/6)

### **SECTION 9: Physical and chemical properties**

- · 9.1 Information on basic physical and chemical properties
- · General Information

· Appearance:

Form: Aerosol
Colour: Whitish

Odour: Sweetish

Odour threshold: Not determined.

• **pH-value:** Not determined.

· Change in condition

Melting point/freezing point: Undetermined. Initial boiling point and boiling range: -44.5  $^{\circ}\text{C}$ 

· Flash point: -97 °C

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· Flammability (solid, gas):	Not applicable.
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.  Not determined.
· Explosion limits: Lower: Upper:	0.8 Vol % 10.9 Vol %
· Vapour pressure at 20 °C:	4 hPa
<ul> <li>Density at 20 °C:</li> <li>Relative density</li> <li>Vapour density</li> <li>Evaporation rate</li> </ul>	0.654 g/cm³ Not determined. Not determined. Not applicable.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity: Dynamic: Kinematic:	Not determined. Not determined.
· Solvent content: Organic solvents:	90.8 %
Solids content: • 9.2 Other information	7.1 % No further relevant information available.

# **SECTION 10: Stability and reactivity**

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

# **SECTION 11: Toxicological information**

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50	· LD/LC50 values relevant for classification:		
92128-66-	92128-66-0 Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane		
Oral	LD50	>5840 mg/kg (rat)	
Dermal	LD50	>2920 mg/kg (rabbit)	
Inhalative	LC50/4h	>25 mg/l (rat)	

- · Primary irritant effect:
- · Skin corrosion/irritation

Causes skin irritation.

- · 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.

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- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):
- · 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

May cause drowsiness or dizziness.

- · 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

· Aquatic toxicity:	· Aquatic toxicity:		
92128-66-0 Hydi	92128-66-0 Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane		
NOELR (72h)	3 mg/l (Pseudokirchneriella subcapitata)		
EL50(48h)	3 mg/l (Daphnia magna)		
EL50 (72h)	EL50 (72h) 30-100 mg/l (Pseudokirchneriella subcapitata)		
LL50 (96h)	11.4 mg/l (Oncorhynchus mykiss (96h))		
NOEC (21 days)	EC (21 days) 0.17 mg/l (Daphnia magna)		
LOEC (21 days)	LOEC (21 days) 0.32 mg/l (Daphnia magna)		
109-66-0 Pentan	109-66-0 Pentane		
NOEC (72h)	7.51 mg/l (Pseudokirchneriella subcapitata)		
EC50 (72h)	EC50 (72h) 10.7 mg/l (Pseudokirchneriella subcapitata)		
LC50/96h	LC50/96h 4.26 mg/l (Oncorhynchus mykiss (96h))		
EC50/48h	2.7 mg/l (Daphnia magna)		

- · 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Toxic for fish
- · Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

#### **SECTION 13: Disposal considerations**

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.

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14.1 UN-Number ADR, ADN, IMDG, IATA	UN1950
14.2 UN proper shipping name	
ADR, ADN	UN1950 AEROSOLS
IMDG	AEROSOLS (PENTANES), MARINE POLLUTANT
IATA	AEROSOLS, flammable
14.3 Transport hazard class(es)	
ADR	
Class	2 5F Gases.
Label	2.1
ADN	0.57
ADN/R Class: IMDG	2 5F
Class Label	2.1 2.1
IATA	
Class	2.1
Label	2.1
14.4 Packing group	
ADR, IMDG, IATA	Void
14.5 Environmental hazards:	Product contains environmentally hazardous substances:
Marine pollutant:	Yes
Special marking (ADR):	Symbol (fish and tree) Symbol (fish and tree)
14.6 Special precautions for user	Warning: Gases.
Danger code (Kemler):	vi arming. Gases.
EMS Number:	F-D.S-U
Stowage Code	SW1 Protected from sources of heat.
	SW22 For AEROSOLS with a maximum capacity of 1
	litre: Category A. For AEROSOLS with a capacity abov 1 litre: Category B. For WASTE AEROSOLS: Category

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· Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· 14.7 Transport in bulk according to Ai	nnex II of
Marpol and the IBC Code	Not applicable.
Transport/Additional information:	
ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0
· · · · ·	Not permitted as Excepted Quantity
Transport category	2
Tunnel restriction code	D
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0
	Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS

### **SECTION 15: Regulatory information**

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category

P3a FLAMMABLE AEROSOLS

E2 Hazardous to the Aquatic Environment

- · Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t
- · Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- · National regulations:

Class	Share in %
NK	75-<100

- · VOC-CH 90.75 %
- · VOC-EU 593.5 g/l
- · Danish MAL Code 5-3
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

#### **SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

#### · Relevant phrases

H220 Extremely flammable gas.

H224 Extremely flammable liquid and vapour.

H225 Highly flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

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H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

- · Department issuing SDS: Research & Development
- · Contact:
- · 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 Harmonised 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 (division of the American Chemical Society)

MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)

DNEL: Derived No-Effect Level (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1: Flammable gases - Category 1

Aerosol 1: Aerosols - Category 1

Press. Gas (Comp.): Gases under pressure - Compressed gas

Flam. Liq. 1: Flammable liquids - Category 1

Flam. Liq. 2: Flammable liquids - Category 2

Skin Irrit. 2: Skin corrosion/irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

- GI