

## K2 LUBE

11294-0015

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

#### 1.1. Product identifier

K2 LUBE

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

##### Use of the substance/mixture

Ceramic insulation

Insulating agent for dental technology use / ceramic plaster

#### 1.3. Details of the supplier of the safety data sheet

Company name: YETI Dentalprodukte GmbH

Street: Industriestrasse 3

Place: D-78234 Engen

Telephone: +49 7733-9410-0

Telefax: +49 7733-9410-22

Responsible Department: sdb@yeti-dental.com

Responsible for the safety data sheet: sds@gbk-ingelheim.de

#### 1.4. Emergency telephone

+49 7733-9410-0 (Mo-Do 8:00 - 16:30, Fr 8:00 - 15:00)

#### number:

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Regulation (EC) No. 1272/2008

Hazard categories:

Flammable liquid: Flam. Liq. 2

Aspiration hazard: Asp. Tox. 1

Skin corrosion/irritation: Skin Irrit. 2

Specific target organ toxicity - single exposure: STOT SE 3

Hazardous to the aquatic environment: Aquatic Acute 1

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Highly flammable liquid and vapour.

May be fatal if swallowed and enters airways.

Causes skin irritation.

May cause drowsiness or dizziness.

Very toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

##### Regulation (EC) No. 1272/2008

##### Hazard components for labelling

heptane; n-heptane

methylcyclohexane

cyclohexane

Signal word:

Danger

Pictograms:



##### Hazard statements

H225 Highly flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

##### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### Special labelling of certain mixtures

EUH066 Repeated exposure may cause skin dryness or cracking.

### Additional advice on labelling

Classification in compliance with the assessment procedure specified in the Regulation (EC) no 1272/2008.

### 2.3. Other hazards

Results of PBT and vPvB assessment: Not applicable.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Chemical characterization

Mixture of the following substances with non-hazardous admixtures:

#### Hazardous components

CAS No	Chemical name	Quantity
	EC No	Index No
	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
142-82-5	heptane; n-heptane	10 - < 25 %
	205-563-8	601-008-00-2
	Flam. Liq. 2, Asp. Tox. 1, Skin Irrit. 2, STOT SE 3, Aquatic Acute 1, Aquatic Chronic 1; H225 H304 H315 H336 H400 H410	
108-87-2	methylcyclohexane	2,5 - 10 %
	203-624-3	601-018-00-7
	01-2119556887-18	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Acute 1 (M-Factor = 1), Aquatic Chronic 2; H225 H315 H336 H304 H400 H411	
110-82-7	cyclohexane	2,5 - 10 %
	203-806-2	601-017-00-1
	01-2119463273-41	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 1; H225 H315 H336 H304 H400 H410	

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).

Remove contaminated soaked clothing immediately. Keep warm and calm injured person. Take away from danger area and lay down affected person.

#### After inhalation

Move to fresh air in case of accidental inhalation of vapours or decomposition products.

Refer for medical treatment.

#### After contact with skin

Wash off with soap and plenty of water.

Consult a doctor if skin irritation persists.

#### After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Seek medical treatment by eye specialist.

#### After ingestion

Do not induce vomiting. Rinse out mouth and give plenty of water to drink. Never give anything by mouth to an unconscious person. Summon a doctor immediately. Induce vomiting only upon the advice of a physician. Administer active charcoal (slurry with 20 - 40 grams with a ratio of 10:1). Do not administer milk or digestible oils!

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

May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness. Repeated exposure may cause skin dryness or cracking.

Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing.

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Liver and renal damage is possible. Risk of pulmonary oedema.

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

Treat symptoms.

Laxan: sodium sulfate (1 tablespoon / 250 ml of water)

If necessary, rinse out the stomach.

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## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

Alcohol-resistant foam, dry chemical, carbon dioxide (CO<sub>2</sub>), water-spray.

#### **Unsuitable extinguishing media**

Full water jet.

### **5.2. Special hazards arising from the substance or mixture**

Fire may produce:

Carbon monoxide and carbon dioxide

### **5.3. Advice for firefighters**

Use breathing apparatus with independent air supply.

Protective suit.

#### **Additional information**

Vapours are heavier than air and spread along ground. The vapour/air mixture is explosive, even in empty, uncleaned receptacles. Risk of bursting of the receptacle. Cool containers at risk with water spray jet. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

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

### **6.1. Personal precautions, protective equipment and emergency procedures**

In case of vapour formation use respirator. Ensure adequate ventilation. Use personal protective clothing. Get unprotected persons to safety. Keep away from heat and sources of ignition. Avoid contact with the skin and the eyes. Do not inhale vapour/aerosol.

### **6.2. Environmental precautions**

Do not discharge into the drains/surface waters/ground water. Risk of explosion.

### **6.3. Methods and material for containment and cleaning up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder). Shovel into suitable container for disposal. Clean contaminated surface thoroughly. Take measures against electrostatic charging.

### **6.4. Reference to other sections**

Observe protective instructions (see Sections 7 and 8).

Information for disposal see section 13.

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## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

#### **Advice on safe handling**

Keep container tightly closed. Do not breathe vapours. Use only in thoroughly ventilated areas. Avoid contact with skin, eyes and clothing.

#### **Advice on protection against fire and explosion**

Do not smoke - volatile. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Use only explosion-proof equipment. Vapours may form explosive mixture with air. Ignitable mixtures can form in the empty container.

#### **Further information on handling**

Take off contaminated clothing and wash it before reuse. Preventive skin protection recommended. Wash hands before breaks and after work.

### **7.2. Conditions for safe storage, including any incompatibilities**

#### **Requirements for storage rooms and vessels**

Keep container tightly closed in a dry, cool and well-ventilated place.

Pay attention to anti-explosion rules.

#### **Advice on storage compatibility**

Incompatible with oxidizing agents.

#### **Further information on storage conditions**

Use only in well-ventilated areas. Keep containers tightly closed in a cool, well-ventilated place. Protect from heat and direct solar radiation. (> 40 °C)

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### 7.3. Specific end use(s)

Ceramic insulation

Insulating agent for dental technology use / ceramic plaster

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
110-82-7	Cyclohexane	100	350		TWA (8 h)	WEL
		300	1050		STEL (15 min)	WEL
142-82-5	n-Heptane	500	2085		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

### 8.2. Exposure controls



#### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over the use of personal protective equipment.

#### Protective and hygiene measures

Do not inhale vapours. Avoid contact with eyes and skin. Wash hands before breaks and immediately after handling the product. When using do not eat, drink or smoke. Take off immediately all contaminated clothing.

#### Eye/face protection

Tightly fitting goggles (EN 166).

Eye wash bottle with pure water (EN 15154).

#### Hand protection

Splash protection: Protective gloves resistant to chemicals made off butyl, minimum coat thickness 0,7 mm, permeation resistance (wear duration) > 240 minutes, i.e. protective glove <Butoject 898> made by www.kcl.de.

This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions. Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.

#### Skin protection

Long sleeved clothing (EN 368). Wear fire retardant protective coveralls. Take precautions against electrostatic discharges.

#### Respiratory protection

In case of vapour / mist formation use respirator. (Full mask, filter A).

#### Environmental exposure controls

Do not empty into drains Explosion risk.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Colourless
Odour:	Solvent-like
pH-Value (at 20 °C):	n.d.

#### Changes in the physical state

Melting point:	n.d.
Initial boiling point and boiling range:	98 °C
Sublimation point:	n.d.
Softening point:	n.d.
Pour point:	n.d.

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:	n.d.
Flash point:	- 4 °C
Flammability	
Solid:	n.d.
Gas:	n.d.
Explosive properties	In use, may form flammable/explosive vapour-air mixture. Heating will cause pressure rise with risk of bursting.
Lower explosion limits:	1,1 vol. %
Upper explosion limits:	6,7 vol. %
Ignition temperature:	215 °C
Auto-ignition temperature	
Solid:	n.d.
Gas:	n.d.
Decomposition temperature:	n.d.
Oxidizing properties	n.d.
Vapour pressure: (at 20 °C)	48 hPa
Vapour pressure:	n.d.
Density (at 20 °C):	0,83 g/cm <sup>3</sup>
Bulk density:	n.d.
Water solubility: (at 20 °C)	Immiscible
Solubility in other solvents	n.d.
Partition coefficient:	n.d.
Viscosity / dynamic:	n.d.
Viscosity / kinematic:	n.d.
Flow time:	n.d.
Vapour density:	n.d.
Evaporation rate:	n.d.
Solvent separation test:	n.d.
Solvent content:	30,8 %

### **9.2. Other information**

Other information

No data available.

(n.a. = not applicable; n.d. = not determined)

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## **SECTION 10: Stability and reactivity**

### **10.1. Reactivity**

No decomposition if stored and applied as directed.

Formations of peroxides possible. In use, may form flammable/explosive vapour-air mixture. Uncleaned empty vessels may contain product gases which can form explosive mixtures with air.

### **10.2. Chemical stability**

Sensitive to light.

Sensitive to air.

### **10.3. Possibility of hazardous reactions**

Reactions with oxidizing agents.

Reactions with alkalies.

### **10.4. Conditions to avoid**

Vapour/air mixtures are explosive at intensive warming.

Heating can release vapours which can be ignited.

### **10.5. Incompatible materials**

Oxidizing agents (strong), strong bases.

Plastics may be corroded.

### **10.6. Hazardous decomposition products**

Carbon monoxide and carbon dioxide.

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## **SECTION 11: Toxicological information**

### **11.1. Information on toxicological effects**

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### Acute toxicity

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

nausea.

Vomiting.

Aspiration hazard.

Hazard of lung oedema.

Risk of pneumonia.

CAS No	Chemical name				
	Exposure route	Method	Dose	Species	Source
108-87-2	methylcyclohexane				
	oral	LD50	> 3200 mg/kg	Ratte	GESTIS
110-82-7	cyclohexane				
	oral	LD50	12705 mg/kg	Rat	
	dermal	LD50	2000 mg/kg	Rabbit	
	inhalative (4 h) vapour	LC50	14 mg/l	Rat	

### Irritation and corrosivity

Causes skin irritation.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

### Sensitising effects

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

### STOT-single exposure

May cause drowsiness or dizziness. (heptane; n-heptane)

### Severe effects after repeated or prolonged exposure

Repeated exposure may cause skin dryness or cracking.

### Carcinogenic/mutagenic/toxic effects for reproduction

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

### Aspiration hazard

May be fatal if swallowed and enters airways.

### Further information

After absorption of large amounts: disorders of the central nervous system, dizziness, intoxication, drop in blood pressure, anaesthesia. Leads to functional disorders of the respiratory tract and the heart.

Handle in accordance with good industrial hygiene and safety practices.

## SECTION 12: Ecological information

### 12.1. Toxicity

No data available.

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h]   [d]	Species	Source
142-82-5	heptane; n-heptane					
	Acute fish toxicity	LC50	375 mg/l	96 h		GESTIS
108-87-2	methylcyclohexane					
	Acute crustacea toxicity	EC50	1,47 mg/l	48 h	Daphnia magna	ECOTOX
110-82-7	cyclohexane					
	Acute fish toxicity	LC50	4,53 mg/l	96 h	Fish	
	Acute crustacea toxicity	EC50	3,78 mg/l	48 h	Daphnia magna	

### 12.2. Persistence and degradability

No data available.

### 12.3. Bioaccumulative potential

No data available.

### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
142-82-5	heptane; n-heptane	4,66
108-87-2	methylcyclohexane	3,88

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### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.

### 12.6. Other adverse effects

Do not flush into surface water or sanitary sewer system.

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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Advice on disposal

In accordance with regulations for special waste, must be taken to a special waste disposal. Should not be disposed of with household waste. Do not empty into drains  
Keep in closed original container. Do not mix with other products.

#### Waste disposal number of waste from residues/unused products

070699 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; wastes not otherwise specified

#### Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal.  
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.  
Contaminated packagings are to be treated like the product itself.

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## SECTION 14: Transport information

### Land transport (ADR/RID)

**14.1. UN number:** UN 1206  
**14.2. UN proper shipping name:** HEPTANES  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3



Classification code: F1  
Limited quantity: 1 L  
Excepted quantity: E2  
Transport category: 2  
Hazard No: 33  
Tunnel restriction code: D/E

### Inland waterways transport (ADN)

**14.1. UN number:** UN 1206  
**14.2. UN proper shipping name:** HEPTANES  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3



Classification code: F1  
Limited quantity: 1 L  
Excepted quantity: E2

### Marine transport (IMDG)

**14.1. UN number:** UN 1206  
**14.2. UN proper shipping name:** HEPTANES  
**14.3. Transport hazard class(es):** 3, P

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### 14.4. Packing group:

II

Hazard label:

3, P



Special Provisions:

-

Limited quantity:

1 L

Excepted quantity:

E2

EmS:

F-E, S-D

### Air transport (ICAO-TI/IATA-DGR)

#### 14.1. UN number:

UN 1206

#### 14.2. UN proper shipping name:

HEPTANES

#### 14.3. Transport hazard class(es):

3

#### 14.4. Packing group:

II

Hazard label:

3



Limited quantity Passenger:

1 L

Passenger LQ:

Y341

Excepted quantity:

E2

IATA-packing instructions - Passenger:

353

IATA-max. quantity - Passenger:

5 L

IATA-packing instructions - Cargo:

364

IATA-max. quantity - Cargo:

60 L

### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:

yes



### 14.6. Special precautions for user

Handle in accordance with good industrial hygiene and safety practice.

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

The transport takes place only in approved and appropriate packaging.

## SECTION 15: Regulatory information

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

#### National regulatory information

Employment restrictions:

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.

Water contaminating class (D):

2 - water contaminating

#### 15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

## SECTION 16: Other information



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### 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

IMDG = International Maritime Code for Dangerous Goods

IATA/ICAO = International Air Transport Association / International Civil Aviation Organization

MARPOL = International Convention for the Prevention of Pollution from Ships

IBC-Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

REACH = Registration, Evaluation, Authorization and Restriction of Chemicals

CAS = Chemical Abstract Service

EN = European norm

ISO = International Organization for Standardization

DIN = Deutsche Industrie Norm

PBT = Persistent Bioaccumulative and Toxic

LD = Lethal dose

LC = Lethal concentration

EC = Effect concentration

IC = Median immobilisation concentration or median inhibitory concentration

### Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

EUH066 Repeated exposure may cause skin dryness or cracking.

### Further Information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

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