

### Qlima Kristal

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

##### 1.1. Product identifier

Product name : Qlima Kristal  
 Registration number REACH : Not applicable (mixture)  
 Product type REACH : Mixture

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

###### 1.2.1 Relevant identified uses

Liquid fuel for portable heaters

###### 1.2.2 Uses advised against

No uses advised against

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

###### Supplier of the safety data sheet

PVG LIQUIDS NV  
 Belgicastraat 1C - Haven 2290  
 B-9042 Gent  
 ☎ +32 9 250 90 80  
 liquid600@pvg.eu

##### 1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch) :  
 +32 14 58 45 45 (BIG)

#### SECTION 2: Hazards identification

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

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Asp. Tox.	category 1	H304: May be fatal if swallowed and enters airways.

##### 2.2. Label elements



Contains: hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics; hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics.

**Signal word** Danger

###### H-statements

H304 May be fatal if swallowed and enters airways.

###### P-statements

P101 If medical advice is needed, have product container or label at hand.  
 P102 Keep out of reach of children.  
 P331 Do NOT induce vomiting.  
 P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
 P405 Store locked up.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

###### Supplemental information

EUH066 Repeated exposure may cause skin dryness or cracking.

##### 2.3. Other hazards

No other hazards known

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

##### 3.1. Substances

Not applicable

##### 3.2. Mixtures

# Qlima Kristal

Name REACH Registration No	CAS No EC No List No	Conc. (C)	Classification according to CLP	Note	Remark
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics 01-2119457273-39	64742-48-9 265-150-3 918-481-9	20%<C<30%	Asp. Tox. 1; H304	(13)(1)(10)	Constituent
hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics 01-2119480162-45	927-285-2	70%<C<80%	Asp. Tox. 1; H304	(1)(10)	Constituent

(1) For H-statements in full: see heading 16

(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

(13) Aromatics ≤ 1 %

Note: numbers 9xx-xxx-x are provisional list numbers assigned by Echa pending an official EC inventory number

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General:

If you feel unwell, seek medical advice.

#### After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

#### After skin contact:

Wash immediately with lots of water. Do not apply (chemical) neutralizing agents without medical advice. Soap may be used. Take victim to a doctor if irritation persists.

#### After eye contact:

Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply (chemical) neutralizing agents without medical advice. Take victim to an ophthalmologist if irritation persists.

#### After ingestion:

Rinse mouth with water. Do not apply (chemical) neutralizing agents without medical advice. Do not induce vomiting. Consult a doctor/medical service if you feel unwell.

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

#### 4.2.1 Acute symptoms

##### After inhalation:

EXPOSURE TO HIGH CONCENTRATIONS: Headache. Dizziness.

##### After skin contact:

ON CONTINUOUS EXPOSURE/CONTACT: Dry skin. Cracking of the skin.

##### After eye contact:

No effects known.

##### After ingestion:

Risk of aspiration pneumonia.

#### 4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### 5.1.1 Suitable extinguishing media:

Small fire: Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting class B foam extinguisher, Quick-acting CO2 extinguisher.

Major fire: Class B foam (not alcohol-resistant).

#### 5.1.2 Unsuitable extinguishing media:

Small fire: Water (quick-acting extinguisher, reel); risk of puddle expansion.

Major fire: Water; risk of puddle expansion.

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

Upon combustion: CO and CO2 are formed.

### 5.3. Advice for firefighters

#### 5.3.1 Instructions:

No specific fire-fighting instructions required.

#### 5.3.2 Special protective equipment for fire-fighters:

Gloves. Protective clothing. Heat/fire exposure: compressed air/oxygen apparatus.

# Qlima Kristal

## SECTION 6: Accidental release measures

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

No naked flames.

#### 6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

#### 6.1.2 Protective equipment for emergency responders

Gloves. Protective clothing.

Suitable protective clothing

See heading 8.2

### 6.2. Environmental precautions

Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Prevent spreading in sewers.

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

Take up liquid spill into a non combustible material e.g.: dry sand/earth. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

### 6.4. Reference to other sections

See heading 13.

## SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 7.1. Precautions for safe handling

Keep away from naked flames/heat. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Gas/vapour heavier than air at 20°C. Avoid prolonged and repeated contact with skin. Remove contaminated clothing immediately. Do not discharge the waste into the drain. Keep container tightly closed.

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

#### 7.2.1 Safe storage requirements:

Store at ambient temperature. Keep out of direct sunlight. Store in a dry area. Ventilation at floor level. Fireproof storeroom. Provide for a tub to collect spills. Meet the legal requirements.

#### 7.2.2 Keep away from:

Heat sources, oxidizing agents.

#### 7.2.3 Suitable packaging material:

Carbon steel, polyethylene, polypropylene, stainless steel.

#### 7.2.4 Non suitable packaging material:

No data available

### 7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 Occupational exposure

##### a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

##### b) National biological limit values

If limit values are applicable and available these will be listed below.

#### 8.1.2 Sampling methods

Product name	Test	Number
Petroleum Distillate (Naphthas)	NIOSH	1550
Petroleum Distillates Fractions	OSHA	48

#### 8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

#### 8.1.4 Threshold values

##### DNEL/DMEL - Workers

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Effect level (DNEL/DMEL)	Type	Value	Remark
			No data available

##### DNEL/DMEL - General population

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Effect level (DNEL/DMEL)	Type	Value	Remark
			No data available

#### 8.1.5 Control banding

If applicable and available it will be listed below.

Reason for revision: 3.2, 11, 15.1

Publication date: 2014-04-24

Date of revision: 2019-06-17

Revision number: 0101

Product number: 42837

3 / 12

# Qlima Kristal

## 8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

### 8.2.2 Individual protection measures, such as personal protective equipment

Avoid prolonged and repeated contact with skin. Do not eat, drink or smoke during work.

#### a) Respiratory protection:

Insufficient ventilation: wear respiratory protection.

#### b) Hand protection:

Protective gloves against chemicals (EN 374).

- materials (good resistance)

Tetrafluoroethylene, nitrile rubber.

- materials (poor resistance)

Butyl rubber, natural rubber.

#### c) Eye protection:

Face shield.

#### d) Skin protection:

Protective clothing.

### 8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

## SECTION 9: Physical and chemical properties

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

Physical form	Liquid
Odour	No data available on odour
Odour threshold	No data available
Colour	Variable in colour, depending on the national fiscal legislation
Particle size	Not applicable (liquid)
Explosion limits	No data available
Flammability	Not classified as flammable
Log Kow	Not applicable (mixture)
Dynamic viscosity	No data available
Kinematic viscosity	No data available
Melting point	No data available
Boiling point	183 °C - 249 °C
Evaporation rate	No data available
Relative vapour density	> 10
Vapour pressure	No data available
Solubility	Water ; < 0.01 g/100 ml
Relative density	0.77
Decomposition temperature	No data available
Auto-ignition temperature	No data available
Flash point	> 65 °C
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	No data available

### 9.2. Other information

Surface tension	0.025 N/m ; 25 °C
Absolute density	> 771 kg/m <sup>3</sup>

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Temperature above flashpoint: higher fire/explosion hazard.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No data available.

### 10.4. Conditions to avoid

#### Precautionary measures

Keep away from naked flames/heat. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks.

### 10.5. Incompatible materials

Oxidizing agents.

Reason for revision: 3.2, 11, 15.1

Publication date: 2014-04-24

Date of revision: 2019-06-17

Revision number: 0101

Product number: 42837

4 / 12

# Qlima Kristal

## 10.6. Hazardous decomposition products

Upon combustion: CO and CO<sub>2</sub> are formed.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### 11.1.1 Test results

##### Acute toxicity

###### Qlima Kristal

No (test) data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	> 5000 mg/kg bw		Rat (male / female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	≥ 3160 mg/kg bw	24 h	Rabbit (male / female)	Read-across	
Inhalation (vapours)	LC50	Equivalent to OECD 403	≥ 6100 mg/l	4 h	Rat (male / female)	Experimental value	

hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	> 5000 mg/kg bw		Rat (male / female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	≥ 3160 mg/kg bw	24 h	Rabbit (male / female)	Experimental value	
Inhalation (aerosol)	LC50	Equivalent to OECD 403	> 5.6 mg/l air	4 h	Rat (male)	Experimental value	

##### Conclusion

Not classified for acute toxicity

##### Corrosion/irritation

###### Qlima Kristal

No (test) data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405		1; 24; 48; 72 hours	Rabbit	Experimental value	
Skin	Not irritating	Equivalent to OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	

hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405		24; 72 hours	Rabbit	Experimental value	Single treatment
Skin	Not irritating	Equivalent to OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	

##### Conclusion

Not classified as irritating to the eyes

Not classified as irritating to the skin

Not classified as irritating to the respiratory system

##### Respiratory or skin sensitisation

###### Qlima Kristal

No (test) data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Equivalent to OECD 406		24; 48 hours	Guinea pig (female)	Experimental value	

Reason for revision: 3.2, 11, 15.1

Publication date: 2014-04-24

Date of revision: 2019-06-17

Revision number: 0101

Product number: 42837

5 / 12

# Qlima Kristal

hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Equivalent to OECD 406		24; 48 hours	Guinea pig (male / female)	Experimental value	
Skin	Not sensitizing	Patch test			Human	Experimental value	

## Conclusion

Not classified as sensitizing for skin

Not classified as sensitizing for inhalation

## Specific target organ toxicity

### Qlima Kristal

No (test) data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	Equivalent to OECD 408	≥ 5000 mg/kg bw		No effect		Rat (male / female)	Experimental value
Dermal								Data waiving
Inhalation (vapours)	NOAEC	Equivalent to OECD 413	> 10400 mg/m <sup>3</sup>		No effect	14 weeks (5 days / week)	Rat (female)	Experimental value

hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	Equivalent to OECD 408	≥ 5000 mg/kg bw/day		No effect	13 weeks (daily)	Rat (male / female)	Experimental value
Dermal								Data waiving
Inhalation (vapours)	NOAEC	Equivalent to OECD 413	≥ 10400 mg/m <sup>3</sup> air		No effect	13 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value

## Conclusion

Not classified for subchronic toxicity

## Mutagenicity (in vitro)

### Qlima Kristal

No (test) data on the mixture available

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Chinese hamster lung fibroblasts (V79)	No effect	Experimental value	

hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 473	Human lymphocytes	No effect	Experimental value	

## Mutagenicity (in vivo)

### Qlima Kristal

No (test) data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (stomach tube))	Equivalent to OECD 474		Mouse (male / female)	Bone marrow	Experimental value

hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (stomach tube))	Equivalent to OECD 474		Mouse (male / female)		Experimental value

Reason for revision: 3.2, 11, 15.1

Publication date: 2014-04-24

Date of revision: 2019-06-17

Revision number: 0101

Product number: 42837

6 / 12

# Qlima Kristal

## Conclusion

Not classified for mutagenic or genotoxic toxicity

## Carcinogenicity

### Qlima Kristal

No (test) data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)	NOAEC	Equivalent to OECD 453	≥ 2200 mg/m <sup>3</sup> air	105 weeks (6h / day, 5 days / week)	Rat (female)	No effect		Experimental value

hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)	NOAEC	Equivalent to OECD 453	≥ 2200 mg/m <sup>3</sup> air	105 weeks (6h / day, 5 days / week)	Rat (female)	No carcinogenic effect		Experimental value

## Conclusion

Not classified for carcinogenicity

## Reproductive toxicity

### Qlima Kristal

No (test) data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	NOAEC	Equivalent to OECD 414	≥ 1575 mg/m <sup>3</sup>	10 days (6h / day)	Rat (female)	No effect		Experimental value
Maternal toxicity (Inhalation (vapours))	NOAEL	Equivalent to OECD 414	≥ 1575 mg/m <sup>3</sup>	10 days (6h / day)	Rat	No effect		Experimental value
Effects on fertility (Oral (stomach tube))	NOAEL (P)	Equivalent to OECD 415	≥ 3000 mg/kg bw/day	13 weeks (daily)	Rat (male)	No effect		Experimental value
	NOAEL (P)	Equivalent to OECD 415	≥ 1500 mg/kg bw/day	21 weeks (daily)	Rat (female)	No effect		Experimental value

hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	NOAEC	Equivalent to OECD 414	≥ 900 ppm	10 days (gestation, 6h / day)	Rat (female)	No effect		Weight of evidence
Maternal toxicity (Inhalation (vapours))	NOAEC	Equivalent to OECD 414	≥ 900 ppm	10 days (gestation, 6h / day)	Rat	No effect		Experimental value
Effects on fertility (Inhalation (vapours))	NOAEC	Equivalent to OECD 413	≥ 400 ppm	14 weeks (6h / day, 5 days / week)	Rat (male / female)	No effect		Experimental value

## Conclusion

Not classified for reprotoxic or developmental toxicity

## Aspiration hazard

Classification is based on the relevant ingredients

May be fatal if swallowed and enters airways.

## Toxicity other effects

### Qlima Kristal

No (test) data on the mixture available

Classification is based on the relevant ingredients

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
				Skin dryness or cracking			Literature study Skin

hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics

Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
				Skin dryness or cracking			Expert judgement Skin

## Conclusion

Repeated exposure may cause skin dryness or cracking.

Reason for revision: 3.2, 11, 15.1

Publication date: 2014-04-24

Date of revision: 2019-06-17

Revision number: 0101

Product number: 42837

7 / 12

# Qlima Kristal

## Chronic effects from short and long-term exposure

### Qlima Kristal

No effects known.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Qlima Kristal

No (test) data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LL50	OECD 203	> 1000 mg/l	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EL50	OECD 202	> 1000 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EL50	OECD 201	> 1000 mg/l	72 h	Pseudokirchneriella subcapitata	Static system		Experimental value; Growth rate

hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LL50	OECD 203	> 1000 mg/l	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EL50	OECD 202	> 1000 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EL50	OECD 201	> 1000 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
	NOELR	OECD 201	1000 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
Long-term toxicity fish	NOELR		0.103 mg/l	28 day(s)	Oncorhynchus mykiss		Fresh water	QSAR
Long-term toxicity aquatic crustacea	NOELR	OECD 211	1.0 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; GLP
Toxicity aquatic micro-organisms	EL50		> 1000 mg/l	48 h	Tetrahymena pyriformis		Fresh water	QSAR; Inhibition

### Conclusion

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

### 12.2. Persistence and degradability

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

#### Biodegradation water

Method	Value	Duration	Value determination
OECD 301F: Manometric Respirometry Test	80 %; GLP	28 day(s)	Experimental value

hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics

#### Biodegradation water

Method	Value	Duration	Value determination
OECD 301F: Manometric Respirometry Test	80 %; GLP	28 day(s)	Experimental value

#### Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	8.366 h	1500000 /cm <sup>3</sup>	Calculated value

#### Biodegradation soil

Method	Value	Duration	Value determination
			Data waiving

### Conclusion

Does not contain any not readily biodegradable component(s)

### 12.3. Bioaccumulative potential

#### Qlima Kristal

#### Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

Reason for revision: 3.2, 11, 15.1

Publication date: 2014-04-24

Date of revision: 2019-06-17

Revision number: 0101

Product number: 42837

8 / 12



# Qlima Kristal

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

## BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		112 - 159	128 day(s)	Pisces	Literature study

## Log Kow

Method	Remark	Value	Temperature	Value determination
		> 3		

hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics

## BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	BCFBAF v3.01	480.6 l/kg; Fresh weight			Estimated value

## Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

## Conclusion

Does not contain bioaccumulative component(s)

## 12.4. Mobility in soil

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

### (log) Koc

Parameter	Method	Value	Value determination
			Data waiving

hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics

### (log) Koc

Parameter	Method	Value	Value determination
log Koc		4.16 - 5.88	QSAR

### Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	19 %	0 %	52.9 %	25 %	3.1 %	Calculated value

## Conclusion

Contains component(s) that adsorb(s) into the soil  
Contains component(s) with potential for mobility in the soil

## 12.5. Results of PBT and vPvB assessment

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

## 12.6. Other adverse effects

### Qlima Kristal

#### Fluorinated greenhouse gases (Regulation (EU) No 517/2014)

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

#### Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

#### Groundwater

Groundwater pollutant

hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics

#### Groundwater

Groundwater pollutant

## SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 13.1. Waste treatment methods

#### 13.1.1 Provisions relating to waste

##### European Union

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

13 07 03\* (wastes of liquid fuels: other fuels (including mixtures)). Depending on branch of industry and production process, also other waste codes may be applicable.

#### 13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

#### 13.1.3 Packaging/Container

Reason for revision: 3.2, 11, 15.1

Publication date: 2014-04-24

Date of revision: 2019-06-17

Revision number: 0101

Product number: 42837

9 / 12

# Qlima Kristal

## European Union

Waste material code packaging (Directive 2008/98/EC).

15 01 10\* (packaging containing residues of or contaminated by dangerous substances).

## SECTION 14: Transport information

### Road (ADR)

14.1. UN number	Transport	Not subject
14.2. UN proper shipping name		
14.3. Transport hazard class(es)		
Hazard identification number		
Class		
Classification code		
14.4. Packing group		
Packing group		
Labels		
14.5. Environmental hazards		
Environmentally hazardous substance mark		no
14.6. Special precautions for user		
Special provisions		
Limited quantities		

### Rail (RID)

14.1. UN number	Transport	Not subject
14.2. UN proper shipping name		
14.3. Transport hazard class(es)		
Hazard identification number		
Class		
Classification code		
14.4. Packing group		
Packing group		
Labels		
14.5. Environmental hazards		
Environmentally hazardous substance mark		no
14.6. Special precautions for user		
Special provisions		
Limited quantities		

### Inland waterways (ADN)

14.1. UN number	UN number	9003
14.2. UN proper shipping name	Proper shipping name	Substances with a flash-point above 60 °C and not more than 100 °C
14.3. Transport hazard class(es)		
Class		9
Classification code		
14.4. Packing group		
Packing group		
Labels		
14.5. Environmental hazards		
Environmentally hazardous substance mark		no
14.6. Special precautions for user		
Special provisions		
Limited quantities		
Specific mention		Dangerous only when carried in tank vessels.

### Sea (IMDG/IMSBC)

14.1. UN number	Transport	Not subject
14.2. UN proper shipping name		
14.3. Transport hazard class(es)		
Class		
14.4. Packing group		
Packing group		
Labels		
14.5. Environmental hazards		
Marine pollutant		
Environmentally hazardous substance mark		no
14.6. Special precautions for user		

Reason for revision: 3.2, 11, 15.1

Publication date: 2014-04-24

Date of revision: 2019-06-17

Revision number: 0101

Product number: 42837

10 / 12

# Qlima Kristal

Special provisions	
Limited quantities	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code	
Annex II of MARPOL 73/78	Not applicable, based on available data

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

14.1. UN number	
Transport	Not subject
14.2. UN proper shipping name	
14.3. Transport hazard class(es)	
Class	
14.4. Packing group	
Packing group	
Labels	
14.5. Environmental hazards	
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	
Passenger and cargo transport	
Limited quantities: maximum net quantity per packaging	

## SECTION 15: Regulatory information

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

#### European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
100 %	

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
<ul style="list-style-type: none"> <li>· hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</li> <li>· hydrocarbons, C11-C14, isoalkanes, cyclics, &lt;2% aromatics</li> </ul>	Liquid substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1.	<ol style="list-style-type: none"> <li>1. Shall not be used in:                             <ul style="list-style-type: none"> <li>— ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,</li> <li>— tricks and jokes,</li> <li>— games for one or more participants, or any article intended to be used as such, even with ornamental aspects,</li> </ul> </li> <li>2. Articles not complying with paragraph 1 shall not be placed on the market.</li> <li>3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:                             <ul style="list-style-type: none"> <li>— can be used as fuel in decorative oil lamps for supply to the general public, and,</li> <li>— present an aspiration hazard and are labelled with H304,</li> </ul> </li> <li>4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).</li> <li>5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:                             <ol style="list-style-type: none"> <li>a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life-threatening lung damage";</li> <li>b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter may lead to life threatening lung damage";</li> <li>c) lamp oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.</li> </ol> </li> <li>6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled H304, intended for supply to the general public.</li> <li>7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.'</li> </ol>

#### National legislation Belgium

Qlima Kristal

No data available

#### National legislation The Netherlands

Qlima Kristal

Reason for revision: 3.2, 11, 15.1

Publication date: 2014-04-24

Date of revision: 2019-06-17

Revision number: 0101

Product number: 42837

11 / 12

# Qlima Kristal

Waterbezwaarlijkheid	A (4); Algemene Beoordelingsmethodiek (ABM)
----------------------	---

## National legislation France

Qlima Kristal

No data available

## National legislation Germany

Qlima Kristal

WGK	1; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017
-----	--

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

TA-Luft	5.2.5/I
---------	---------

hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics

TA-Luft	5.2.5/I
---------	---------

## National legislation United Kingdom

Qlima Kristal

No data available

## Other relevant data

Qlima Kristal

No data available

## 15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.  
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

A chemical safety assessment has been performed.

hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics

A chemical safety assessment has been performed.

## SECTION 16: Other information

### Full text of any H-statements referred to under heading 3:

H304 May be fatal if swallowed and enters airways.

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
CLP (EU-GHS)	Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EC50	Effect Concentration 50 %
EC50	EC50 in terms of reduction of growth rate
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative & Toxic
PNEC	Predicted No Effect Concentration
STP	Sludge Treatment Process
vPvB	very Persistent & very Bioaccumulative

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.

Reason for revision: 3.2, 11, 15.1

Publication date: 2014-04-24

Date of revision: 2019-06-17

Revision number: 0101

Product number: 42837

12 / 12