

Trade name: Marlotherm XC**Product no.:** 5009357**Current version :** 1.2.0, issued: 19.10.2021**Replaced version:** 1.1.0, issued: 01.12.2020**Region:** GB**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name****Marlotherm XC**

Substance name cumene
REACH registration no. 01-2119473983-24

Identification numbers

CAS no. 98-82-8
EC no. 202-704-5
Index no. 601-024-00-X

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

heat transfer fluids
Coatings
Intermediate
laboratory chemical

Uses advised against

No data available.

1.3 Details of the supplier of the safety data sheet**Address**

Krahn Chemie Deutschland GmbH
Grimm 10
20457 Hamburg
Deutschland

Telephone no. +49 40 320 92-0
Fax no. +49 40 320 92-322

Information provided by / telephone

+49 40 320 92-0

Advice on Safety Data Sheet

msds@krahn.eu

1.4 Emergency telephone number

For medical advice (in German and English):
+49 551 192 40 (Giftinformationszentrum Nord)
In case of transport incidents and other emergencies:
+44 (0)1235 239 670 (NCEC, National Chemical Emergency Centre)

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification in accordance with Regulation (EC) No 1272/2008 (CLP)**

Aquatic Chronic 2; H411
Asp. Tox. 1; H304
Flam. Liq. 3; H226
STOT SE 3; H335

Classification information

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:
Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP
Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3 and 4 of Annex I to CLP.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)****Product identifier**

98-82-8 (cumene)

Hazard pictograms

GHS02



GHS07



GHS08



GHS09

Signal word

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Danger

Hazard statement(s)

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H335	May cause respiratory irritation.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273	Avoid release to the environment.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331	Do NOT induce vomiting.
P370+P378	In case of fire: Use dry sand, extinguishing powder or alcohol-resistant foam to extinguish.
P391	Collect spillage.

2.3 Other hazards

PBT assessment

The product is not considered to be a PBT.

vPvB assessment

The product is not considered to be a vPvB.

SECTION 3: Composition/information on ingredients**3.1 Substances****Chemical characterization**

Substance name cumene

Identification numbers

CAS no.	98-82-8
EC no.	202-704-5
Index no.	601-024-00-X

3.2 Mixtures

Not applicable. The product is not a mixture.

SECTION 4: First aid measures**4.1 Description of first aid measures****General information**

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing. If the patient is likely to become unconscious, place and transport in stable sideways position.

After inhalation

Ensure supply of fresh air. Remove affected person from the immediate area. In case of breathing difficulties give oxygen.

After skin contact

In case of contact with skin wash off with plenty of water.

After eye contact

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes).

After ingestion

Rinse the mouth thoroughly with water. Do not induce vomiting - aspiration hazard. Call a doctor immediately. Never give anything by mouth to an unconscious person. In case of vomiting keep head of person in face-down position to prevent penetration of vomitus into the trachea.

4.2 Most important symptoms and effects, both acute and delayed**Effects**

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing media**

Carbon dioxide; Dry chemical extinguisher; Water mist

Unsuitable extinguishing media

High power water jet; Water spray jet

5.2 Special hazards arising from the substance or mixture

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In the event of fire, the following can be released: Carbon monoxide (CO); Carbon dioxide (CO₂)

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing. Cool endangered containers with water spray jet. Run-off water from fire fighting must not be discharged into drains or enter surface water. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Do not inhale vapours. Keep away from ignition sources.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

6.3 Methods and material for containment and cleaning up

Prevent spread over a wide area. Take up with absorbent material (e.g., sand, kieselguhr, universal binder). Send in suitable containers for recovery or disposal.

6.4 Reference to other sections

No data available.

SECTION 7: Handling and storage**7.1 Precautions for safe handling****Advice on safe handling**

Provide good ventilation at the work area (local exhaust ventilation, if necessary). If workplace exposure limits are exceeded, respiratory protection approved for this particular job must be worn. Risks inherent to handling the product must be minimised by applying the appropriate protective and preventive measures. Working processes should - so far as possible, according to the state of the art - be designed to rule out bodily contact or the release of hazardous substances. Observe information on personal protection equipment (see section 8).

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and after work. Avoid product contact with skin, eyes and clothing; Provide eye wash fountain in work area. Do not inhale vapours. Remove soiled or soaked clothing immediately.

Advice on protection against fire and explosion

Keep away from sources of heat and ignition. Take precautionary measures against static charges. Use explosion-proof equipment/fittings and non-sparking tools.

7.2 Conditions for safe storage, including any incompatibilities**Technical measures and storage conditions**

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight.

Requirements for storage rooms and vessels

Containers which are opened must be carefully closed and kept upright to prevent leakage. Always keep in containers of same material as the original.

Incompatible products

Do not store together with: oxidizing agents; Acids

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Occupational exposure limit values**

No	Substance name	CAS no.	EC no.
1	cumene	98-82-8	202-704-5
List of approved workplace exposure limits (WELs) / EH40			
Cumene			
	WEL short-term (15 min reference period)	250 mg/m ³	50 ppm
	WEL long-term (8-hr TWA reference period)	125 mg/m ³	25 ppm
	Comments	Sk	
EU 2019/1831			
Cumene			

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WEL short-term (15 min reference period)	250	mg/m ³	50	ppm
WEL long-term (8-hr TWA reference period)	50	mg/m ³	10	ppm
Skin resorption / sensibilisation	Skin			

DNEL, DMEL and PNEC values**DNEL values (worker)**

DNL Values (Worker)					
No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	cumene			98-82-8 202-704-5	
	dermal	Long term (chronic)	systemic	15.4	mg/kg/day
	inhalative	Long term (chronic)	systemic	100	mg/m³
	inhalative	Short term (acute)	local	250	mg/m³

DNEL value (consumer)

Table 1: Data on substances (consumers)				CAS / EC no	
No	Substance name			Value	
	Route of exposure	Exposure time	Effect		
1	cumene			98-82-8 202-704-5	
	oral	Long term (chronic)	systemic	5	mg/kg/day
	dermal	Long term (chronic)	systemic	1.2	mg/kg/day
	inhalative	Long term (chronic)	systemic	16.6	mg/m³

PNEC values

PNEC values			
No	Substance name		CAS / EC no
	ecological compartment	Type	Value
1	cumene		98-82-8 202-704-5
	water	fresh water	0.035 mg/L
	water	marine water	0.0035 mg/L
	water	Aqua intermittent	0.012 mg/L
	water	fresh water sediment	3.22 mg/kg dry weight
	water	marine water sediment	0.322 mg/kg dry weight
	soil	-	0.624 mg/kg dry weight
	sewage treatment plant	-	200 mg/L

8.2 Exposure controls**Appropriate engineering controls**

Provide good ventilation.

Personal protective equipment**Respiratory protection**

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection

Safety glasses with side protection shield (EN 166)

Hand protection

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Other

Chemical-resistant work clothes. Make sure when selecting personal protective equipment (PPE), that it is suitable for the activity, workplace conditions in which it will be used according to the applying European CEN standards and upon consultation with the PPE supplier.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

State of aggregation
liquid
Form/Colour
liquid
colourless

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Odour			
aromatic			
Odour threshold			
Value	0.4	- 6.4	ppm
pH value			
Value	5.6		
Concentration	500	g/l	
Boiling point / boiling range			
Value	152.7 °C		
Melting point/freezing point			
Value	-96 °C		
Decomposition temperature			
No data available			
Pour point			
Value	-75 °C		
Flash point			
Value	31 °C		
Method	DIN 51755		
Ignition temperature			
No data available			
Auto-ignition temperature			
Value	420 °C		
Flammability			
No data available			
Lower explosion limit			
Value	0.9 % vol		
Upper explosion limit			
Value	6.5 % vol		
Vapour pressure			
Value	4.96 hPa		
Reference temperature	20 °C		
Relative vapour density			
Value	4.15		
Reference temperature	20 °C		
Relative density			
Value	0.870		
Reference temperature	15 °C		
Density			
Value	86 g/cm³		
Reference temperature	20 °C		
Solubility in water			
Comments	insoluble		
Solubility			
No data available			
Partition coefficient n-octanol/water (log value)			
No	Substance name	CAS no.	EC no.
1	cumene	98-82-8	202-704-5
log Pow	3.55		
Reference temperature	23 °C		
Method	OECD 107		
Viscosity			
Value	0.74 mm²/s		
Reference temperature	38 °C		
Type	kinematic		
Value	0.79 mPa*s		
Reference temperature	20 °C		
Type	dynamic		
Particle characteristics			

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No data available.

SECTION 10: Stability and reactivity**10.1 Reactivity**

May form explosive peroxides.

10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

Dangerous reactions are not to be expected when handling product according to its intended use.

10.4 Conditions to avoid

Heat, naked flames and other ignition sources.

10.5 Incompatible materials

Oxidizing agents; Acids

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute oral toxicity**

No data available

Acute dermal toxicity

No data available

Acute inhalational toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Reproduction toxicity

No data available

Carcinogenicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration hazard

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Contact with hot material may cause thermal burns.

11.2 Information on other hazards**Endocrine disrupting properties**

No data available.

Other information

No data available.

SECTION 12: Ecological information

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Toxicity to fish (acute)
No data available
Toxicity to fish (chronic)
No data available
Toxicity to Daphnia (acute)
No data available
Toxicity to Daphnia (chronic)
No data available
Toxicity to algae (acute)
No data available
Toxicity to algae (chronic)
No data available
Bacteria toxicity
No data available

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log value)			
1	cumene	98-82-8	202-704-5
log Pow		3.55	
Reference temperature		23	°C
Method	OECD 107		

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	
PBT assessment	The product is not considered to be a PBT.
vPvB assessment	The product is not considered to be a vPvB.

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

12.8 Other information

Other information
Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Disposal of the product should be carried out in accordance with all applicable regulations following consultation with the responsible local authority and the disposal company in an authorised and suitable disposal facility.
Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

SECTION 14: Transport information**14.1 Transport ADR/RID/ADN**

Class	3
Classification code	F1
Packing group	III
Hazard identification no.	30
UN number	UN1918
Proper shipping name	ISOPROPYLBENZENE
Tunnel restriction code	D/E
Label	3

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substance mark

Symbol "fish and tree"

14.2 Transport IMDG

Class	3
Packing group	III
UN number	UN1918
Proper shipping name	ISOPROPYLBENZENE
EmS	F-E, S-E
Label	3
Marine pollutant mark	Symbol "fish and tree"

14.3 Transport ICAO-TI / IATA

Class	3
Packing group	III
UN number	UN1918
Proper shipping name	Isopropylbenzene
Label	3

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

14.7 Maritime transport in bulk according to IMO instruments

Not relevant

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations****Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)**

In accordance with the REACH regulation (EC) 1907/2006, the product does not contain any substances that are considered as subject to listing in annex XIV, inventory of substances requiring authorisation.

REACH candidate list of substances of very high concern (SVHC) for authorisation

In accordance with article 57 and article 59 of the Reach regulation (EC) 1907/2006, this substance is not considered as subject to listing in annex XIV, inventory of substances requiring authorisation ("Authorization list").

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES

The product is considered being subject to REACH regulation (EC) 1907/2006 annex XVII.	No 3, 40
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Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

This product is subject to Part I of Annex I, risk category:	E2, P5c
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If the properties of the substance/product give rise to more than one classification, for the purposes of 2012/18/UE, the lowest qualifying quantities set out in Part 1 and Part 2 of Annex I shall apply.

Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control)

Comments	not applicable
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National regulations**National chemical inventories**

USA (TSCA)	listed
DSL/NDSL (Canada)	DSL listed
ENCS (Japan)	ENCS/ISHL listed
ECL (Korea)	listed
AICS (Australia)	listed
IECSC / NEPA (China)	listed
PICCS (Philippines)	listed
CSNN (Taiwan)	TCSI listed

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this substance.

SECTION 16: Other information**Sources of key data used to compile the data sheet:**

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Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.
Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.
National Threshold Limit Values of the corresponding countries as amended in each case.
Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.
The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

Creation of the safety data sheet

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This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.

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