

# Safety Data Sheet

According to (EC) No. 1907/2006 (and 2020/878)

Day of issue: 11. May 2025

Day of revision: 11. May 2025

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

### 1.1. Product identifier

UFI: Not relevant

KemiLumin Sirius Cat. No. 5410 (component A)

KemiLumin Vega Cat. No. 5420 (component A)

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

For research and analysis. Restricted to professional users.

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

See below

Responsible person for the safety data sheet (e-mail): [altox@altox.dk](mailto:altox@altox.dk)

### 1.4. Emergency telephone number

NHS (England or Wales): Dial 111 or 0845 4647 NHS 24 (Scotland): Dial 111

National Poisons Information Centre (Ireland): +353 (1) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week)

Healthcare Professionals: +353 (1) 809 2566 (24-hour service)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

CLP (1272/2008): None

### 2.2. Label elements

EUH210: Safety data sheet available on request.

### 2.3. Other hazards

PBT/vPvB: The ingredients are not considered PBT/vPvB according to criteria set out in Regulation 2023/707.

Endocrine disrupting properties: The substances are not identified as having endocrine disrupting properties in accordance with the criteria set out in Regulation 2023/707.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

% w/w	Substance Name	CAS-no.	EC-no.	Index-no.	REACH reg.-no.	Classification
<10	Ethane 1,2-diol	107-21-1	203-473-3	603-027-00-1	01-2119456816-28	Acute Tox. 4;H302 (ATE=500) STOT RE 2;H373

Wording of hazard statements - see section 16

**SECTION 4: First aid measures****4.1. Description of first aid measures**

- Inhalation: Move the affected person to fresh air. Keep at rest. If needed: get medical attention.
- Skin contact: Remove contaminated clothing and wash with soap and water. In case of rash, wound, or other skin irritation: Seek medical advice.
- Eye contact: Flush with water or physiological salt water, holding eye lids open, remember to remove contact lenses, if any. If irritation persists: Seek medical advice.
- Ingestion: Rinse mouth and drink plenty of water. Keep under surveillance. If needed: get medical attention.

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

May cause slight irritation of skin, eyes, lungs and gastrointestinal tract.

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

Show this safety data sheet to a physician or emergency ward.

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

Not combustible; aqueous solution.

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

Not relevant (the product is not combustible).

**5.3. Advice for firefighters**

When extinguishing surrounding fires use breathing apparatus with an independent source of air.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment - see section 8.

**6.2. Environmental precautions**

Avoid empty into drains. If large amounts of the mixture contaminate sewages, inform appropriate authorities in accordance with local regulations.

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

Absorb spilled liquid and place spillage in a plastic container. Further handling of spillage - see section 13.

**6.4. Reference to other sections**

See references above.

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

Avoid contact with skin, eyes and clothing.

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

At 2-8°C. Keep container closed when not in use. Protected against direct sunlight.

**7.3. Specific end use(s)**

See section 1.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters**

Occupational exposure limits (EH40/2020):

	Long-term exposure limit (8-hr TWA)	Short-term exposure limit (15-minute STEL)	Comment
Ethane-1,2-diol			Sk
Particulate	10 mg/m <sup>3</sup>	-	
Vapour	20 ppm = 52 mg/m <sup>3</sup>	40 ppm = 104 mg/m <sup>3</sup>	
Sk: Can be absorbed through the skin			

**SECTION 8: Exposure controls/personal protection (continued)**

DNEL:	Exposure	Value	Population	Effects
Ethane-1,2-diol	Long term - inhalation	35 mg/m <sup>3</sup>	Worker	Local
	Long term - dermal	106 mg/kg/d	Worker	Systemic
	Long term - inhalation	7 mg/m <sup>3</sup>	Consumer	Local
	Long term - dermal	53 mg/kg/d	Consumer	Systemic
PNEC:	Medium	Value		
Ethane-1,2-diol	Freshwater	10 mg/l		
	Marine water	1 mg/l		
	Intermittent release (Fresh water)	10 mg/l		
	Intermittent release (Marine water)	1 mg/l		
	Freshwaters sediment	37 mg/kg		
	Marine water sediment	3.7 mg/kg		
	Soil	1.53 mg/kg		
	STP	199.5 mg/l		

**8.2. Exposure controls**

Appropriate engineering controls: None particular.

Personal protective equipment:

Inhalation: Not relevant during normal use.

Skin: In case of prolonged or repeated work: Wear protective gloves (>0,3 mm) (EN 374) e.g. of nitrile.  
Breakthrough time: approximately 3 hours.

Eyes: Not relevant during normal use. Safety goggles (EN ISO 16321-1) when there is risk of eye contact.

Environmental exposure controls: None particular.

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

Physical state:	Liquid
Colour:	Colourless to slight yellow
Odour:	None
Melting point / freezing point (°C):	No available data
Initial boiling point and boiling range (°C):	100
Flammability (solid, gas):	Not relevant
Lower and upper explosion limit (vol.-%):	Not relevant
Flash point (°C):	380
Auto-ignition temperature (°C):	Not relevant
Decomposition temperature (°C):	No available data
pH:	9.40-9.60
Kinematic viscosity:	No available data
Solubility:	Completely soluble in water
Partition coefficient: n-octanol/water, Log K <sub>ow</sub> :	No available data
Vapour pressure (hPa, 20°C):	No available data
Density and/or relative density (g/cm <sup>3</sup> ):	1.0014
Particle characteristics:	Not relevant - liquid

**9.2. Other information**

None relevant

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

No available data.

**10.2. Chemical stability**

Stable under normal conditions - see section 7.

**10.3. Possibility of hazardous reactions**

None known

**10.4. Conditions to avoid**

Excessive heating and freezing

**10.5. Incompatible materials**

None known

**10.6. Hazardous decomposition products**

None known

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

Acute toxicity:	Based on available data, the classification criteria are not met.
Skin corrosion/irritation:	Based on available data, the classification criteria are not met.
Serious eye damage/irritation:	Based on available data, the classification criteria are not met.
Respiratory or skin sensitization:	Based on available data, the classification criteria are not met.
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:	Based on available data, the classification criteria are not met.
STOT-repeated exposure:	Based on available data, the classification criteria are not met.
Aspiration hazard:	Based on available data, the classification criteria are not met.

Hazard class	Data	Test	Data source
Acute toxicity:			
Inhalation	No available/applicable data	-	-
Dermal	LD <sub>50</sub> (mouse) = >3500 mg/kg (Ethane-1,2-diol)	No info	Supplier
Oral	LD <sub>50</sub> (rat) = >4500 mg/kg (Ethane-1,2-diol)	No info	Supplier
Corrosion/irritation:	No skin or eye irritation, rabbit (Ethane-1,2-diol)	No info	ECHA
Sensitization:	Not skin sensitising, guinea pig (Ethane-1,2-diol)	OECD 406	ECHA
CMR:	No CMR effects (Ethane-1,2-diol)	OECD 471	ECHA

Information on likely routes of exposure: Skin, lungs and ingestion.

**Symptoms:**

Inhalation:	Inhalation of atomized liquid may cause irritation of the upper respiratory tract.
Skin:	May cause irritation with redness. Ethane-1,2-diol may be absorbed through the skin.
Eyes:	May cause irritation with redness.
Ingestion:	Ingestion of large amounts can cause irritation with nausea and stomach ache.
Chronic effects:	Prolonged or frequent exposure to vapours of volatile organic compounds may result in damage on liver, kidneys, blood or central nervous system (including brain damage).

**11.2. Information on other hazards:**

None known

**SECTION 12: Ecological information****12.1. Toxicity**

Aquatic	Data	Test (Media)	Data source
Fish	LC <sub>50</sub> (Pimephales promelas, 96h) = 72860 mg/l (Ethane-1,2-diol)	EPA 600/4-90/027	ECHA
Crustacean	EC <sub>50</sub> (Daphnia magna, 48h) = >100 mg/l (Ethane-1,2-diol)	OECD 202	ECHA
Algae	NOEC (Pseudokirchneriella sub. 72h) = >100 mg/l (Ethane-1,2-diol)	OECD 201	ECHA

**12.2. Persistence and degradability**

Ethane-1,2-diol is readily degradable (>90%, 10d, OECD Guideline 301A)

**12.3. Bioaccumulative potential**

Ethane-1,2-diol: Log K<sub>ow</sub> <1 - No bioaccumulation expected.

**12.4. Mobility in soil**

No available or applicable data.

**12.5. Results of PBT and vPvB assessment**

No ingredients are PBT/vPvB, according to the criteria set out in Regulation 2023/707.

**12.6. Endocrine disrupting properties:**

None known.

**12.7. Other adverse effects**

None known.

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

Disposal should be according to local, state or national legislation. Dispose of through authority facilities or pass to chemical disposal company.

**EWC-code:**

16 05 09 (mixture itself)

15 02 03 (Paper towel, inert material etc. contaminated with the mixture)

**SECTION 14: Transport information**

Not dangerous goods according to ADR/RID/IMDG/IATA

**14.1. UN number or ID number:** None

**14.2. UN proper shipping name** None

**14.3. Transport hazard class(es)** None

**14.4. Packing group** None

**14.5. Environmental hazards** None

**14.6. Special precautions for user** None

**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**

None

**15.2. Chemical safety assessment**

No CSR

**SECTION 16: Other information****Hazard statements mentioned in section 3:**

H302: Harmful if swallowed.

H373: May cause damage to organs through prolonged or repeated exposure.

EUH210: Safety data sheet available on request.

**Abbreviations:**

CMR = Carcinogenicity, mutagenicity and reproductive toxicity.

CSR = Chemical Safety Report

DNEL = Derived No-Effect Level

EC50 = Effect Concentration 50 %

FW = Fresh Water

LC<sub>50</sub> = Lethal Concentration 50 %

LD<sub>50</sub> = Lethal Dose 50 %

PBT = Persistent, Bioaccumulative, Toxic

PNEC = Predicted No-Effect Concentration

vPvB = very Persistent, very Bioaccumulative

**Literature:**

ECHA = European Chemicals Agency

**Training advice:**

No special training is required. However, the user should be well instructed in the execution of his/her task, be familiar with this Safety Data Sheet and have normal training in the use of personal protective equipment.

**Changes since the previous edition:**

Not relevant – first version

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# Safety Data Sheet

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

### 1.1. Product identifier

UFI: Not relevant

KemiLumin Sirius Cat. No. 5410 (component B)

KemiLumin Vega Cat. No. 5420 (component B)

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

For research and analysis. Restricted to professional users.

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

See below

Responsible person for the safety data sheet (e-mail): [altox@altox.dk](mailto:altox@altox.dk)

### 1.4. Emergency telephone number

NHS (England or Wales): Dial 111 or 0845 4647 NHS 24 (Scotland): Dial 111

National Poisons Information Centre (Ireland): +353 (1) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week)

Healthcare Professionals: +353 (1) 809 2566 (24-hour service)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

CLP (1272/2008): None

### 2.2. Label elements

EUH210: Safety data sheet available on request.

### 2.3. Other hazards

PBT/vPvB: The ingredients are not considered PBT/vPvB according to criteria set out in Regulation 2023/707.

Endocrine disrupting properties: The substances are not identified as having endocrine disrupting properties in accordance with the criteria set out in Regulation 2023/707.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

% w/w	Substance Name	CAS-no.	EC-no.	Index-no.	REACH reg.-no.	Classification
<1	Acetic acid	64-19-7	200-580-7	607-002-00-6	01-2119456816-28	Flam. Liq. 3;H226 Skin Corr. 1A;H314 Eye Dam. 1;H318

SCL (Specific Concentration limits) for classification: Skin Corr. 1A;H314:  $C \geq 90\%$ ; Skin Corr. 1B;H314:  $25\% \leq C < 90\%$ ; Eye Irrit. 2;H319:  $10\% \leq C < 25\%$ ; Skin Irrit. 2;H315:  $10\% \leq C < 25\%$  (Harmonized classification)

Wording of hazard statements - see section 16

**SECTION 4: First aid measures****4.1. Description of first aid measures**

- Inhalation: Move the affected person to fresh air. Keep at rest. If needed: get medical attention.
- Skin contact: Remove contaminated clothing and wash with soap and water. In case of rash, wound, or other skin irritation: Seek medical advice.
- Eye contact: Flush with water or physiological salt water, holding eye lids open, remember to remove contact lenses, if any. If irritation persists: Seek medical advice.
- Ingestion: Rinse mouth and drink plenty of water. Keep under surveillance. If needed: get medical attention.

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

May cause slight irritation of skin, eyes, lungs and gastrointestinal tract.

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

Show this safety data sheet to a physician or emergency ward.

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

Not combustible; aqueous solution.

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

Not relevant (the product is not combustible).

**5.3. Advice for firefighters**

When extinguishing surrounding fires use breathing apparatus with an independent source of air.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment - see section 8.

**6.2. Environmental precautions**

Avoid empty into drains. If large amounts of the mixture contaminate sewages, inform appropriate authorities in accordance with local regulations.

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

Absorb spilled liquid and place spillage in a plastic container. Further handling of spillage - see section 13.

**6.4. Reference to other sections**

See references above.

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

Avoid contact with skin, eyes and clothing.

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

At 2-8°C. Keep container closed when not in use. Protected against direct sunlight.

**7.3. Specific end use(s)**

See section 1.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters**

Occupational exposure limits (EH40/2020):

	Long-term exposure limit (8-hr TWA)	Short-term exposure limit (15-minute STEL)	Comment
Acetic acid	10 ppm = 25 mg/m <sup>3</sup>	20 ppm = 50 mg/m <sup>3</sup>	-

**SECTION 8: Exposure controls/personal protection (continued)**

DNEL:	Exposure	Value	Population	Effects
Acetic acid	Long term - inhalation	25 mg/m <sup>3</sup>	Worker	Local
	Long term - dermal	25 mg/m <sup>3</sup>	Worker	Local

PNEC:	Medium	Value
Acetic acid	Freshwater	3.058 mg/l
	Marine water	0.306 mg/l
	Freshwaters sediment	11.36 mg/kg
	Marine water sediment	0.1136 mg/kg
	Soil	0.47 mg/kg
	STP	85 mg/l

**8.2. Exposure controls**

Appropriate engineering controls: None particular.

Personal protective equipment:

Inhalation: Not relevant during normal use.

Skin: In case of prolonged or repeated work: Wear protective gloves (>0,3 mm) (EN 374) e.g. of nitrile.  
Breakthrough time: approximately 3 hours.

Eyes: Not relevant during normal use. Safety goggles (EN ISO 16321-1) when there is risk of eye contact.

Environmental exposure controls: None particular.

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

Physical state:	Liquid
Colour:	Colourless to slight yellow
Odour:	None
Melting point / freezing point (°C):	No available data
Initial boiling point and boiling range (°C):	100
Flammability (solid, gas):	Not relevant
Lower and upper explosion limit (vol.-%):	Not relevant
Flash point (°C):	380
Auto-ignition temperature (°C):	Not relevant
Decomposition temperature (°C):	No available data
pH:	4.85-5.05
Kinematic viscosity:	No available data
Solubility:	Completely soluble in water
Partition coefficient: n-octanol/water, Log K <sub>ow</sub> :	No available data
Vapour pressure (hPa, 20°C):	No available data
Density and/or relative density (g/cm <sup>3</sup> ):	0,9993
Particle characteristics:	Not relevant - liquid

**9.2. Other information**

None relevant

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

No available data.

**10.2. Chemical stability**

Stable under normal conditions - see section 7.

**10.3. Possibility of hazardous reactions**

None known

**10.4. Conditions to avoid**

Excessive heating and freezing

**10.5. Incompatible materials**

None known

**10.6. Hazardous decomposition products**

None known

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

Acute toxicity:	Based on available data, the classification criteria are not met.
Skin corrosion/irritation:	Based on available data, the classification criteria are not met.
Serious eye damage/irritation:	Based on available data, the classification criteria are not met.
Respiratory or skin sensitization:	Based on available data, the classification criteria are not met.
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:	Based on available data, the classification criteria are not met.
STOT-repeated exposure:	Based on available data, the classification criteria are not met.
Aspiration hazard:	Based on available data, the classification criteria are not met.

Hazard class	Data (Acetic acid)	Test	Data source
Acute toxicity:			
Inhalation	LC <sub>50</sub> (rat) = 11,4 mg/l	No info	IUCLID
Dermal	LC <sub>50</sub> (rat) = 11,4 mg/l	No info	IUCLID
Oral	LD <sub>50</sub> (rat) = 3310 mg/kg (	No info	IUCLID
Corrosion/irritation:	Severe irritation to corrosion of skin and eyes, rabbit	No info	IUCLID
Sensitization:	No available/applicable data.	-	-
CMR:	TDLo (rat, oral) = 5760 mg/kg/32W intermittent: "Equivocal tumorigenic agent"	No info	RTECS
	TDLo (lactating female rat, oral) = 700 mg/kg 18d after birth: "Effects on new-born"	No info	RTECS

Information on likely routes of exposure: Skin, lungs and ingestion.

**Symptoms:**

Inhalation:	Inhalation of atomized liquid may cause irritation of the upper respiratory tract.
Skin:	May cause irritation with redness.
Eyes:	May cause irritation with redness.
Ingestion:	Ingestion of large amounts can cause irritation with nausea and stomach ache.
Chronic effects:	None known.

**11.2. Information on other hazards:**

None known

**SECTION 12: Ecological information****12.1. Toxicity**

Aquatic	Data (Acetic acid)	Test (Media)	Data source
Fish	LC <sub>50</sub> (Oncorhynchus mykiss, 96h) > 300 mg/l	OECD 203	ECHA
Crustacean	EC <sub>50</sub> (Acartia tonsa, 48h) > 300 mg/l	OECD 202	ECHA
Algae	EC <sub>50</sub> (Skeletonema costatum, 72h) > 1000 mg/l	ISO 10253	ECHA

**12.2. Persistence and degradability**

Acetic acid is rapidly degradable (OECD 301).

**12.3. Bioaccumulative potential**

Acetic acid: Log K<sub>ow</sub> <1 - No bioaccumulation expected.

**12.4. Mobility in soil**

No available or applicable data.

**12.5. Results of PBT and vPvB assessment**

No ingredients are PBT/vPvB, according to the criteria set out in Regulation 2023/707.

**12.6. Endocrine disrupting properties:**

None known.

**12.7. Other adverse effects**

None known.

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

Disposal should be according to local, state or national legislation. Dispose of through authority facilities or pass to chemical disposal company.

**EWC-code:**

16 05 09 (mixture itself)

15 02 03 (Paper towel, inert material etc. contaminated with the mixture)

**SECTION 14: Transport information**

Not dangerous goods according to ADR/RID/IMDG/IATA

**14.1. UN number or ID number:** None

**14.2. UN proper shipping name:** None

**14.3. Transport hazard class(es):** None

**14.4. Packing group:** None

**14.5. Environmental hazards:** None

**14.6. Special precautions for user:** None

**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**

None

**15.2. Chemical safety assessment**

No CSR

**SECTION 16: Other information****Hazard statements mentioned in section 3:**

H226: Flammable liquid and vapour.

H314: Causes severe skin burns and eye damage.

H318: Causes serious eye damage.

EUH210: Safety data sheet available on request.

**Abbreviations:**

CMR = Carcinogenicity, mutagenicity and reproductive toxicity.

CSR = Chemical Safety Report

DNEL = Derived No-Effect Level

EC50 = Effect Concentration 50 %

FW = Fresh Water

LC<sub>50</sub> = Lethal Concentration 50 %

LD<sub>50</sub> = Lethal Dose 50 %

PBT = Persistent, Bioaccumulative, Toxic

PNEC = Predicted No-Effect Concentration

vPvB = very Persistent, very Bioaccumulative

**Literature:**

ECHA = European Chemicals Agency

**Training advice:**

No special training is required. However, the user should be well instructed in the execution of his/her task, be familiar with this Safety Data Sheet and have normal training in the use of personal protective equipment.

**Changes since the previous edition:**

Not relevant – first version

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