kementec

Safety Data Sheet

According to (EC) No. 1907/2006 (and 2020/878)
Day of issue: 11. May 2025
Day of revision: 21. November 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
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^3	-	
Vapour	20 ppm = 52 mg/m^3	40 ppm = 104 mg/m^3	

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^3	Worker	Local
	Long term - dermal	106 mg/kg/d	Worker	Systemic
	Long term - inhalation	7 mg/m^3	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

SECTION 9: Physical and chemical properties (continued)

Solubility:	Completely soluble in water
Partition coefficient: n-octanol/water, Log K_{ow}:	No available data
Vapour pressure (hPa, 20°C):	No available data
Density and/or relative density (g/cm^3):	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_{50} (mouse) = >3500 mg/kg (Ethane-1,2-diol)	No info	Supplier
Oral	LD_{50} (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.

SECTION 11: Toxicological information (continued)

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_{50} (Pimephales promelas, 96h) = 72860 mg/l (Ethane-1,2-diol)	EPA 600/4-90/027	ECHA
Crustacean	EC_{50} (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_{ow} <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_{50} = Lethal Concentration 50 %
LD_{50} = 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:
None

Prepared by: Altox a/s – Tonsbakken 16-18 – DK-2740 Skovlunde - Phone +45 - 38 34 77 98/ PW - Quality control: PH

Kementec Solutions A/S | Kuldyssen 10 DK-2630 Taastrup | Tel: +45 39 27 17 71 VAT: DK 25 80 67 35 | support@kementec.com www.kementec.com

kementec

Safety Data Sheet

According to (EC) No. 1907/2006 (and 2020/878)
Day of issue: 11. May 2025
Day of revision: 21. November 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 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
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 ≥ 90%; Skin Corr. 1B;H314: 25% ≤ C < 90%; Eye Irrit. 2;H319: 10% ≤ C < 25%; Skin Irrit. 2;H315: 10% ≤ 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^3	20 ppm = 50 mg/m^3	-

SECTION 8: Exposure controls/personal protection (continued)

DNEL:	Exposure	Value	Population	Effects
Acetic acid	Long term - inhalation	25 mg/m^3	Worker	Local
	Long term - dermal	25 mg/m^3	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_{ow}:	No available data
Vapour pressure (hPa, 20°C):	No available data
Density and/or relative density (g/cm^3):	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_{50} (rat) = 11,4 mg/l	No info	IUCLID
Dermal	LC_{50} (rat) = 11,4 mg/l	No info	IUCLID
Oral	LD_{50} (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:	TD_{Lo} (rat, oral) = 5760 mg/kg/32W intermittent: "Equivocal tumorigenic agent" TD_{Lo} (lactating female rat, oral) = 700 mg/kg 18d after birth: "Effects on new-born"	No info No info	RTECS 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_{50} (Oncorhynchus mykiss, 96h) > 300 mg/l	OECD 203	ECHA
Crustacean	EC_{50} (Acartia tonsa, 48h) > 300 mg/l	OECD 202	ECHA
Algae	EC_{50} (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_{ow} <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_{50} = Lethal Concentration 50 %
LD_{50} = 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:
None

Prepared by: Altox a/s – Tonsbakken 16-18 – DK-2740 Skovlunde - Phone +45 - 38 34 77 98/ PW - Quality control: PH

Kementec Solutions A/S
Kuldyssen 10
DK-2630 Taastrup
Tel: +45 39 27 17 71
VAT: DK 25 80 67 35
support@kementec.com
www.kementec.com