

SAFETY DATA SHEET

Safety data sheet according to (EC) No. 1907/2006

The Safety data sheet is prepared by a Danish Consultant Company that has made a toxicological evaluation of all components in the mixture.

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier:****FIXATIV**

UFI: K6J0-N09G-000Q-4Y45

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

Fixative for hobby use.

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

Schjerning Farver A/S

Østerallé 21

Tel: +45 86 34 22 11 (Directly Schjerning)

8400 Ebeltoft

Denmark

Responsible person for the safety data sheet (e-mail): jb@schjerning.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:**

Extremely flammable aerosol.

CLP (1272/2008): Flam. Aer. 1;H222 H229

2.2. Label elements:**Danger**

H222: Extremely flammable aerosol.

H229: Pressurised container: May burst if heated.

P101: If medical advice is needed, have product container or label at hand.

P102: Keep out of reach of children.

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

P211: Do not spray on an open flame or other ignition source.

P251: Do not pierce or burn, even after use.

P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50°C.

P501: Dispose of contents/container according to local regulations.

2.3. Other hazards: None known.

PBT/vPvB: No ingredients are PBT/vPvB, according to the criteria in REACH Annex XIII.

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	CAS-no.	EC-no.	Index-no.	REACH reg.no.	Classification	SCL, M-factor, ATE	Note
30-60	Ethanol	64-17-5	200-578-6	603-002-00-5	-	Flam. Liq. 2;H225	-	1
20-50	Dimethyl ether	115-10-6	204-065-8	603-019-00-8	-	Flam. Gas 1;H220 Press. Gas	-	1
< 5	Propan-2-ol	67-63-0	200-661-7	603-117-00-0	-	Flam. Liq. 2;H225 Eye Irrit. 2;H319 STOT SE 3;H336	-	1

1) The substance is an organic solvent.

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. In case of discomfort: Seek medical advice.
- Skin contact: Remove contaminated clothing and wash skin with water and mild soap. If irritation persists: seek medical advice.
- Eye contact: Immediately flush with water or physiological salt water for at least 15 minutes, holding eye lids open, remember to remove contact lenses, if any. If irritation persists: seek medical advice. Continue to flush on the way.
- Ingestion: Rinse mouth and drink plenty of water. Do not induce vomiting. If vomiting occurs keep head down to avoid vomit in the lungs. In case of discomfort: Seek medical advice.
- Burns: Flush with water until pain ceases. Remove cloth that isn't burnt to the skin. If needed seek medical attention, continue to flush on the way.

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

May cause irritation of the skin and eyes. Contact with skin may cause degreasing of the skin. Frequent or repeated inhalation of even small amounts of organic solvents can result in damage of the liver, kidneys and central nervous system (brain damage).

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:

Use water spray (never water jet), dry chemical, foam or carbon dioxide.

5.2. Special hazards arising from the substance or mixture:

Do not inhale smoke fumes. In case of fire, the product may form hazardous decomposition products such as oxides of carbon. Aerosol dispensers may explode when exposed to fire.

5.3. Advice for firefighters:

Remove containers if possible. 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. Remove sources of ignition. Ventilate area of leak or spill.

6.2. Environmental precautions:

Do not empty into drains - see section 12. Inform appropriate authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up:

Clean up small amounts with a wet cloth. Larger amounts can be cleaned up with paper towels and placed in a suitable container. Clean with water. 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 eyes. Avoid breathing vapours/aerosols. Provide adequate ventilation. Avoid contact with skin, eyes and clothing. Change contaminated clothes. Wash contaminated skin with water and mild soap. Never to be handled close to fire, sparks and hot surfaces - No smoking. Do not spray on flames or red-hot objects.

7.2. Conditions for safe storage, including any incompatibilities:

Fireproof. Keep out of the reach of children. Protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use. Heating may result in increased pressure and risk of container bursting. Observe official regulations on storage of pressurized containers. Store securely and out of reach of unauthorized personnel and separated from food, feed etc.

7.3. Specific end use(s):

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters:

Occupational exposure limits, UK (EH40/ed.2020):

Substance	8-hour TWA	15-min STEL	Comments
Ethanol	1000 ppm = 1920 mg/m ³	-	-
Dimethyl ether	400 ppm = 766 mg/m ³	500 ppm = 958 mg/m ³	-
Propan-2-ol	400 ppm = 999 mg/m ³	500 ppm = 1250 mg/m ³	-

DNEL/PNEC: No CSR.

8.2. Exposure controls:

Appropriate engineering controls: Provide efficient ventilation.

Personal protective equipment:

Inhalation: In case of inadequate ventilation: Use an approved mask with type AX gas filter (Brown – for organic vapors with a boiling point < 65°C) (EN 140). The filter has a limited lifetime and must be changed. Read the instruction.

Skin: Wear protective gloves of nitrile (EN 374) in case of prolonged work with the mixture.

Breakthrough time: Approximately 3 hours.

Eyes: Wear tight fitting safety goggles (EN166) when risk of eye contact.

Environmental exposure controls: None in particular.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties:

Physical state:	Liquid in a pressurized container (aerosol)
Colour:	Clear
Odour:	Characteristic
Melting point/freezing point (°C):	Not determined
Boiling point or initial boiling point and boiling range (°C):	> 35
Flammability (solid, gas):	Not relevant (liquid)
Lower and upper explosion limit (vol-%):	Not determined
Flash point (°C):	> 0
Auto-ignition temperature (°C):	Not determined
Decomposition temperature (°C):	Not relevant
pH:	Not determined
Kinematic viscosity:	Not determined
Solubility:	Insoluble in water
Partition coefficient n-octanol/water (log value):	Not relevant
Vapour pressure:	593 (Dimethyl ether)
Density and/or relative density:	< 1
Relative vapour density:	Not determined
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:

Vapours can be ignited by a spark, glow or a hot surface. Vapours are heavier than air and may form explosive mixtures with air.

10.4. Conditions to avoid:

Formation of sparks and glows. Excessive heating and sources of ignition.

10.5. Incompatible materials:

May react strongly with oxidizing agents and strong acids and bases.

10.6. Hazardous decomposition products:

In case of extensive heating the mixture may form hazardous decomposition product such as oxides of carbon.

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
Akut toksicitet: Inhalation Dermal Oral	LC ₅₀ (rat) = 125 mg/l/4h (Ethanol)	No info	IUCLID
	LC ₅₀ (rat) = 46.5 mg/L/4h (Propan-2-ol)	OECD 404	IUCLID
	LC ₅₀ (inhalation, rat) = 309 mg/l/4h (Dimethyl ether)	No info	ECHA
	LD _{Lo} (rabbit) = 20000 mg/kg (Ethanol)	No info	IUCLID
	LD ₅₀ (rabbit) = 12800 mg/kg (Propan-2-ol)	No info	IUCLID
	LD ₅₀ (rat) = 1780 mg/kg (Ethanol)	OECD 401	IUCLID
	LD ₅₀ (rat) = 4570 mg/kg (Propan-2-ol)	No info	IUCLID
Corrosion/irritation:	No skin irritation, rabbit (Ethanol)	OECD 404	IUCLID
	None to moderate eye irritation, rabbit (Ethanol)	OECD 405	IUCLID
	Eye irritation, rabbit (Propan-2-ol)	OECD 405	ECHA
Sensitization:	No sensitization, hud, guinea pig (Ethanol)	GPMT	IUCLID
	No sensitization, guinea pig (Propan-2-ol)	OECD 406	ECHA
CMR:	Mutagen effect data are not conclusive (Ethanol)	Diverse	IUCLID
	No mutagen effect (Propan-2-ol)	OECD 476	ECHA
	No carcinogen effect (Propan-2-ol)	OECD 451	ECHA
	No reproductive toxic effect (Propan-2-ol)	No info	IUCLID

Information on likely routes of exposure: Lungs and gastrointestinal tract.

Symptoms:

Inhalation: Vapors and aerosol mist can cause a respiratory tract irritation with coughing, and large amounts can cause indisposition, nausea, grogginess, headache, and loss of consciousness.

Skin: Possibly irritation with redness. Degreases skin.

Eyes: May cause irritation with redness.

Ingestion: Can irritate the mucous membranes of the gastrointestinal tract. Large amounts may cause symptoms as mentioned under "Inhalation".

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). Prolonged or repeated skin contact can cause eczema and lead to cracking, redness, and itching of the skin.

11.2. Information on other hazards:

None known.

SECTION 12: Ecological information

12.1 Toxicity:

Aquatic	Data	Test (Media)	Reference
Fish	LC ₅₀ (Pimephales promelas, 96h) = 15300 mg/l (Ethanol)	No info (FW)	IUCLID
	LC ₅₀ (Rasbora heteromorpha, 96h) = 4200 mg/l (Propan-2-ol)	No info	ECHA
	LC ₅₀ (Poecilia reticulata, 96h) = > 4100 mg/l (Dimethyl ether)	No info	ECHA
Crustacean	EC ₅₀ (Daphnia magna, 48h) = 9268 - 14221 mg/l (Ethanol)	No info (FW)	IUCLID
	LC ₅₀ (Daphnia magna, 48h) = >10000 mg/l (Propan-2-ol)	OECD 201	ECHA
	EC ₅₀ (Daphnia magna, 48h) = 4400 mg/l (Dimethyl ether)	NEN6501 (FW)	ECHA
Algae	EC ₅₀ (Scenedesmus subspicatus, 72h) >1000 mg/l (Propan-2-ol)	OECD 201	ECHA

12.2 Persistence and degradability:

Ethanol, dimethyl ether and propan-2-ol are rapidly degradable.

12.3. Bioaccumulative potential:

Ethanol, dimethyl ether and propan-2-ol: Log K_{ow} < 1 (calculated) – no bioaccumulation is expected.

SECTION 12: Ecological information (continue)

12.4. Mobility in soil:

Ethanol, dimethyl ether and propan-2-ol: K_{oc} (calculated) < 10 – high mobility in soil.

12.5. Results of PBT and vPvB assessment:

No ingredients are PBT/vPvB, according to the criteria in REACH Annex XIII.

12.6. Endocrine disrupting properties:

None known.

12.7. Other adverse effects:

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods:

Occupational: The mixture is to be considered as hazardous waste. 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 04 (aerosol) and 15 02 02 (Paper towel, inert material etc. contaminated with the mixture)

SECTION 14: Transport information

14.1 UN number or ID number: 1950

14.2 UN proper shipping name: AEROSOLS, flammable

14.3 Transport hazard class(es): 2

14.4 Packing group: 5F

14.5 Environmental hazards: No.

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:

Occupational use:

Must not be used by persons under 18 years of age. The employer shall assess the working conditions and, if there is any risk to the safety or health and any effects on the pregnancy or breastfeeding of workers, take the necessary measures to adjust the working conditions (Directive 92/85/EEC).

15.2. Chemical safety assessment:

No CSR.

SECTION 16: Other information

Hazard statements mentioned in section 2 and 3:

H220: Extremely flammable gas.

H222: Extremely flammable aerosol.

H225: Highly flammable liquid and vapour.

H229: Pressurised container: May burst if heated.

H280: Contains gas under pressure; may explode if heated.

H319: Causes serious eye irritation.

H336: May cause drowsiness or dizziness.

Abbreviations:

ATE = Acute Toxicity Estimates

CMR = Carcinogenicity, mutagenicity and reproductive toxicity.

CSR = Chemical Safety Report

DNEL = Derived No-Effect Level

EC₅₀ = Effect Concentration 50 %

ECHA diss. = European Chemical Agency Registration dossier

FW = Fresh Water

LC₅₀ = Lethal Concentration 50 %

LD₅₀ = Lethal Dose 50 %

PBT = Persistent, Bioaccumulative, Toxic

PNEC = Predicted No-Effect Concentration

SCL = Specific Concentration limits

vPvB = very Persistent, very Bioaccumulative

SECTION 16: Other information (continue)

Literature:

ECHA diss. = European Chemical Agency Registration dossier

EPA Ecotox = The US Environmental Protection Agency's database on ecotoxicological effects for chemicals.

IARC = International Agency for Research on Cancer (monograph, resumé)

IUCLID = International Uniform Chemical Database Information

RTECS = Register of Toxic Effects of Chemical Substances.

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:

Revision of the format according to Regulation 2020/878.

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