

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

1.1 Product identifier:

Gerstaecker Universal Fixativ 400ml

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

/

Concentration in use: /

1.3 Details of the supplier of the safety data sheet:

Johannes Gerstaecker Verlag GmbH

Wecostraße , 4

D-53783 Eitorf (Germany)

Phone: 0049224388995 — Fax:

E-mail: info@gerstaecker.com — Website:

1.4 Emergency telephone number:

+495272602160

2 SECTION 2: Hazards identification:

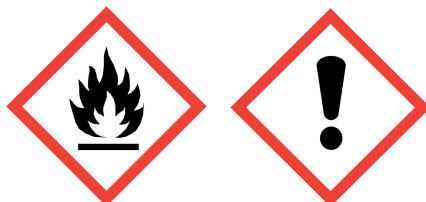
2.1 Classification of the substance or mixture:

Classification of the substance or mixture in accordance with regulation (EU) 1272/2008:

H222 Flam. Aerosol 1 H229 H319 Eye Irrit. 2

2.2 Label elements:

Pictograms:



Signal word:

Danger

Hazard statements:

H222 Flam. Aerosol 1: Extremely flammable aerosol.
H229: Pressurised container: May burst if heated.
H319 Eye Irrit. 2: Causes serious eye irritation.

Precautionary statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251: Do not pierce or burn, even after use.
P264: Wash hands thoroughly after handling.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.
P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F.

Contains:

none

2.3 Other hazards:

none

3 SECTION 3: Composition/information on ingredients:

Ethanol	≤ 60 %	CAS number: 64-17-5 EINECS: 200-578-6 REACH Registration number: 01-2119457610-43 CLP Classification: H225 Flam. Liq. 2 H319 Eye Irrit. 2
Isopropanol	≤ 20 %	CAS number: 67-63-0 EINECS: 200-661-7 REACH Registration number: 01-2119457558-25 CLP Classification: H225 Flam. Liq. 2 H319 Eye Irrit. 2 H336 STOT SE 3
n-Butane (<0,01% Butadiene -1,3)	≤ 20 %	CAS number: 106-97-8 EINECS: 203-448-7 REACH Registration number: Annex V CLP Classification: H220 Flam. Gas 1
Propane	≤ 6 %	CAS number: 74-98-6 EINECS: 200-827-9 REACH Registration number: Annex V CLP Classification: H220 Flam. Gas 1

Methyl ethyl ketone	≤ 4 %	CAS number:	78-93-3
		EINECS:	201-159-0
		REACH Registration number:	01-2119457290-43
		CLP Classification:	EUH066 H225 Flam. Liq. 2 H319 Eye Irrit. 2 H336 STOT SE 3

For the full text of the H phrases mentioned in this section, see section 16.

4 SECTION 4: First aid measures:

4.1 Description of first aid measures:

Always ask medical advice as soon as possible should serious or continuous disturbances occur.

Skin contact:	remove contaminated clothing, rinse with plenty of water, if necessary seek medical attention.
Eye contact:	first prolonged rinsing with water (contact lenses to be removed if this is easily done) then take to physician.
Ingestion:	rinse mouth, do not induce vomiting, take to hospital immediately.
Inhalation:	let sit upright, fresh air, rest and take to hospital.

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

Skin contact:	redness, pain
Eye contact:	redness, pain, blurred vision
Ingestion:	diarrhoea, headache, abdominal cramps, sleepiness, vomiting
Inhalation:	none

4.3 Indication of any immediate medical attention and special treatment needed:

none

5 SECTION 5: Fire-fighting measures:

5.1 Extinguishing media:

CO₂, foam, powder, sprayed water

5.2 Special hazards arising from the substance or mixture:

none

5.3 Advice for firefighters:

Extinguishing agents to be avoided: none

6 SECTION 6: Accidental release measures:

6.1 Personal precautions, protective equipment and emergency procedures:

Do not walk into or touch spilled substances and avoid inhalation of fumes, smoke, dusts and vapours by staying up wind. Remove any contaminated clothing and used contaminated protective equipment and dispose of it safely.

6.2 Environmental precautions:

do not allow to flow into sewers or open water.

6.3 Methods and material for containment and cleaning up:

Contain released substance, store into suitable containers. If possible remove by using absorbent material.

6.4 Reference to other sections:

for further information check sections 8 & 13.

7 SECTION 7: Handling and storage:

7.1 Precautions for safe handling:

handle with care to avoid spillage.

7.2 Conditions for safe storage, including any incompatibilities:

keep in a sealed container in a closed, frost-free, ventilated room.

7.3 Specific end use(s):

/




8 SECTION 8: Exposure controls/personal protection:

8.1 Control parameters:

Listing of the hazardous ingredients in section 3, of which the TLV value is known

n-Butane (<0,01% Butadiene -1,3) 2,370 mg/m³, Ethanol 1,907 mg/m³, Propane 1,800 mg/m³, Methyl ethyl ketone 600 mg/m³, Isopropanol 424 mg/m³

8.2 Exposure controls:

Inhalation protection:	respiratory protection is not required. Use ABEK type gas masks in case of irritating exposure. If necessary, use with sufficient exhaust ventilation.	
Skin protection:	handling with nitril-gloves (EN 374). Breakthrough time: >480' Material thickness: 0,35 mm. Thoroughly check gloves before use. Take of the gloves properly without touching the outside with your bare hands. The manufacturer of the protective gloves has to be consulted about the suitability for a specific work station. Wash and dry your hands.	
Eye protection:	keep an eye-rinse bottle within reach. Tight-fitting safety goggles. Wear a face shield and protective suit in case of exceptional processing problems.	
Other protection:	impermeable clothing. The type of protective equipment depends on the concentration and amount of hazardous substances at the work station in question.	

9 SECTION 9: Physical and chemical properties:

9.1 Information on basic physical and chemical properties:

Melting point/melting range:	/
Boiling point/Boiling range:	-45 °C — 100 °C
pH:	/
pH 1% diluted in water:	/
Vapour pressure/20°C,:	853 000 Pa
Vapour density:	not applicable
Relative density, 20°C:	0.7910 kg/l
Appearance/20°C:	liquid
Flash point:	11 °C
Flammability (solid, gas):	not applicable
Auto-ignition temperature:	365 °C
Upper flammability or explosive limit, (Vol %):	9.500 %
Lower flammability or explosive limit, (Vol %):	1.800 %
Explosive properties:	not applicable
Oxidising properties:	not applicable
Decomposition temperature:	/
Solubility in water:	not soluble
Partition coefficient: n-octanol/water:	not applicable
Odour:	characteristic
Odour threshold:	not applicable
Dynamic viscosity, 20°C:	1 mPa.s
Kinematic viscosity, 40°C:	1 mm ² /s
Evaporation rate (n-BuAc = 1):	6.000

9.2 Other information:

Volatile organic component (VOC):	97.40 %
Volatile organic component (VOC):	721.008 g/l
Sustained combustion test :	/

10 SECTION 10: Stability and reactivity:

10.1 Reactivity:

stable under normal conditions.

10.2 Chemical stability:

extremely high or low temperatures.

10.3 Possibility of hazardous reactions:

none

10.4 Conditions to avoid:

protect from sunlight and do not expose to temperatures exceeding + 50°C.

10.5 Incompatible materials:

keep away from sources of ignition

10.6 Hazardous decomposition products:

doesn't decompose with normal use

11 SECTION 11: Toxicological information:

11.1 Information on toxicological effects:

H319 Eye Irrit. 2: Causes serious eye irritation.

Calculated acute toxicity, ATE oral: /

Calculated acute toxicity, ATE dermal: /

Ethanol	LD50 oral, rat: ≥ 5 000 mg/kg LD50 dermal, rabbit: ≥ 5 000 mg/kg LC50, Inhalation, rat, 4h: ≥ 50 mg/l
Isopropanol	LD50 oral, rat: ≥ 5 000 mg/kg LD50 dermal, rabbit: ≥ 5 000 mg/kg LC50, Inhalation, rat, 4h: ≥ 50 mg/l
n-Butane (<0,01% Butadiene -1,3)	LD50 oral, rat: ≥ 5 000 mg/kg LD50 dermal, rabbit: ≥ 5 000 mg/kg LC50, Inhalation, rat, 4h: ≥ 50 mg/l
Propane	LD50 oral, rat: ≥ 5 000 mg/kg LD50 dermal, rabbit: ≥ 5 000 mg/kg LC50, Inhalation, rat, 4h: ≥ 50 mg/l
Methyl ethyl ketone	LD50 oral, rat: 2 737 mg/kg LD50 dermal, rabbit: ≥ 5 000 mg/kg LC50, Inhalation, rat, 4h: ≥ 50 mg/l

12 SECTION 12: Ecological information:

12.1 Toxicity:

Ethanol	LC50 (Fish): 13000 mg/L (Oncorhynchus mykiss)(96h) EC50 (Daphnia): 12340 mg/L (48h) EC50 (Algae): 275 mg/L (Chlorella vulgaris)(72h)
Isopropanol	LC50 (Fish): 10000 mg/l LC50 (Daphnia): > 10000 mg/L (24h)
Methyl ethyl ketone	LC50 (Fish): 2993 mg/L (96h) NOEC (Fish): 1170 mg/L (96h) EC50 (Daphnia): 308 mg/L (48h) NOEC (Daphnia): 68 mg/L (48h) EC50 (Algae): 2029 mg/L (96h)

12.2 Persistence and degradability:

No additional data available

12.3 Bioaccumulative potential:

	Additional data:
Ethanol	Log Pow: -0,35
Isopropanol	Log Pow: 0.05
n-Butane (<0,01% Butadiene -1,3)	log Pow: 2,890
Methyl ethyl ketone	Log Pow: 0.3

12.4 Mobility in soil:

Water hazard class, WGK (AwSV): 1
Solubility in water: not soluble

12.5 Results of PBT and vPvB assessment:

No additional data available

12.6 Other adverse effects:

No additional data available

13 SECTION 13: Disposal considerations:

13.1 Waste treatment methods:

Draining into the sewers is not permitted. Removal should be carried out by licensed services. Possible restrictive regulations by local authority should always be adhered to.

14 SECTION 14: Transport information:

14.1 UN number:

1950

14.2 UN proper shipping name:

UN 1950 Aerosols, flammable, 5F, (D)

14.3 Transport hazard class(es):

Class(es): 5F
Identification number of the hazard: not applicable

14.4 Packing group:

not applicable

14.5 Environmental hazards:

not dangerous to the environment

14.6 Special precautions for user:

Hazard characteristics: Risk of fire. Risk of explosion. Containments may explode when heated.
Additional guidance: Take cover. Keep out of low areas.



15 SECTION 15: Regulatory information:

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

Water hazard class, WGK (AwSV):	1
Volatile organic component (VOC):	97.400 %
Volatile organic component (VOC):	721.008 g/l
Composition by regulation (EC) 648/2004:	Aliphatic hydrocarbons 15% - 30%

15.2 Chemical Safety Assessment:

No data available

16 SECTION 16: Other information:

Legend to abbreviations used in the safety data sheet:

ADR:	The European Agreement concerning the International Carriage of Dangerous Goods by Road
BCF:	Bioconcentration factor
CAS:	Chemical Abstracts Service
CLP:	Classification, Labelling and Packaging of chemicals
EINECS:	European INventory of Existing Commercial chemical Substances
Nr.:	number
PTB:	persistent, toxic, bioaccumulative
TLV:	Threshold Limit Value
vPvB:	very persistent and very bioaccumulative substances
WGK:	Water hazard class
WGK 1:	slightly hazardous for water
WGK 2:	hazardous for water
WGK 3:	extremely hazardous for water

Legend to the H Phrases used in the safety data sheet:

EUH066: Repeated exposure may cause skin dryness or cracking. **H220 Flam. Gas 1:** Extremely flammable gas. **H222 Flam. Aerosol 1:** Extremely flammable aerosol. **H225 Flam. Liq. 2:** Highly flammable liquid and vapour. **H229:** Pressurised container: May burst if heated. **H319 Eye Irrit. 2:** Causes serious eye irritation. **H336 STOT SE 3:** May cause drowsiness or dizziness.

CLP Calculation method:

Calculation method

Reason of revision, changes of following items:

Sections: 9.1, 9.2

MSDS reference number:

This safety information sheet has been compiled in accordance with annex II/A of the regulation (EU) No 2015/830. Classification has been calculated in accordance with European regulation 1272/2008 with their respective amendments. It has been compiled with the utmost care. We cannot, however, accept responsibility for damage, of any kind, that may be caused by using these data or the product concerned. To use this preparation for an experiment or a new application, the user must carry out a material suitability and safety study himself.