

# Fixation Solution

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Issue date: 1/24/2024 Revision date: 1/24/2024 Version: 1.00

# SAFIA

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

#### 1.1. Product identifier

Product form : Mixture  
Trade name : Fixation Solution  
UFI : A800-P0UR-Q00U-TA34

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
Industrial/Professional use spec : Mycotoxin analysis

##### 1.2.2. Uses advised against

No additional information available

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

**Manufacturer/Supplier**  
SAFIA Technologies GmbH  
Richard-Willstätter-Straße 11  
12489 Berlin  
T +49 162 7323 405  
[schwaar@safia.tech](mailto:schwaar@safia.tech), [www.safia.tech](http://www.safia.tech)

**Email competent person**  
[sds@kft.de](mailto:sds@kft.de)

#### 1.4. Emergency telephone number

Emergency number : GIZ-Nord, Göttingen  
Germany  
+49 551 19240

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 3 H226  
Skin sensitisation, Category 1 H317  
Specific target organ toxicity – Single exposure, Category 3, H335  
Respiratory tract irritation  
Full text of H- and EUH-statements: see section 16

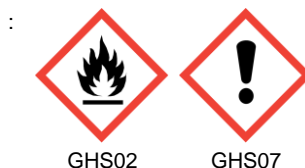
##### Adverse physicochemical, human health and environmental effects

Flammable liquid and vapour. May cause an allergic skin reaction. May cause respiratory irritation.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

: Warning

Contains

: glutaral, glutaraldehyde, 1,5-pentanedial

Hazard statements (CLP)

: H226 - Flammable liquid and vapour.  
H317 - May cause an allergic skin reaction.  
H335 - May cause respiratory irritation.

Precautionary statements (CLP)

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

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P261 - Avoid breathing spray, vapours, mist.  
P280 - Wear protective gloves, protective clothing.  
P312 - Call doctor, a POISON CENTER if you feel unwell.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.

### 2.3. Other hazards

Contains no PBT and/or vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	Ethanol (64-17-5), glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Ethanol (64-17-5), glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Component	
Substance(s) not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605	Ethanol (64-17-5), glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ethanol substance with national workplace exposure limit(s) (DE)	CAS-No.: 64-17-5 EC-No.: 200-578-6 EC Index-No.: 603-002-00-5	$\geq 5 - < 10$	Flam. Liq. 2, H225 Eye Irrit. 2, H319
glutaral, glutaraldehyde, 1,5-pentanedial substance listed as REACH Candidate (Glutaral) substance with national workplace exposure limit(s) (DE)	CAS-No.: 111-30-8 EC-No.: 203-856-5 EC Index-No.: 605-022-00-X REACH-no: 01-2119455549-26-xxxx	$\geq 0.25 - < 1$	Acute Tox. 3 (Oral), H301 (ATE=77 mg/kg bodyweight) Acute Tox. 2 (Inhalation:dust,mist), H330 (ATE=0.28 mg/l/4h) Skin Corr. 1B, H314 Resp. Sens. 1, H334 Skin Sens. 1A, H317 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 2, H411 EUH071

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Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
Ethanol	CAS-No.: 64-17-5 EC-No.: 200-578-6 EC Index-No.: 603-002-00-5	(50 ≤ C < 100) Eye Irrit. 2, H319
glutaral, glutaraldehyde, 1,5-pentanedial	CAS-No.: 111-30-8 EC-No.: 203-856-5 EC Index-No.: 605-022-00-X REACH-no: 01-2119455549-26-xxxx	(0.5 ≤ C < 5) STOT SE 3, H335 (5 ≤ C < 100) EUH071

Full text of H- and EUH-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire. Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Strong water jet.

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

Fire hazard	: Flammable liquid and vapour.
Explosion hazard	: Explosive vapour/air mixtures may be formed.
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Carbon dioxide. Carbonmonoxide.

### 5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.

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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. Avoid breathing spray, vapours, mist.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid sub-soil penetration. Prevent entry to sewers and public waters.

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

Methods for cleaning up : Take up liquid spill into absorbent material. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Notify authorities if product enters sewers or public waters.

Other information : Disposal must be done according to official regulations.

#### 6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Additional hazards when processed : In use, may form flammable vapour-air mixture.  
Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Avoid contact with skin and eyes. Avoid breathing spray, vapours, mist. Use only outdoors or in a well-ventilated area.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

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

Technical measures : Ground/bond container and receiving equipment.  
Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.  
Heat and ignition sources : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from heat and direct sunlight.  
Information about storage in one common storage facility : Keep away from food, drink and animal feeding stuffs.

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

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1 National occupational exposure and biological limit values

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Ethanol (64-17-5)	
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	Ethanol
AGW (OEL TWA)	380 mg/m <sup>3</sup>
	200 ppm
Peak exposure limitation factor	4(II)
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); Y - Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden
Regulatory reference	TRGS900

glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)	
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	Glutaral
AGW (OEL TWA)	0.2 mg/m <sup>3</sup>
	0.05 ppm
Peak exposure limitation factor	2(I)
Remark	AGS - Ausschuss für Gefahrstoffe; Sah - Atemwegs- und Hautsensibilisierender Stoff; Y - Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden
Regulatory reference	TRGS900

### 8.1.2. Recommended monitoring procedures

No additional information available

### 8.1.3. Air contaminants formed

No additional information available

### 8.1.4. DNEL and PNEC

Ethanol (64-17-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	267 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	380 mg/m <sup>3</sup>
DNEL/DMEL (General population)	
Long-term - systemic effects, inhalation	114 mg/m <sup>3</sup>
PNEC (Water)	
PNEC aqua (freshwater)	0.96 mg/l
PNEC aqua (marine water)	0.79 mg/l
PNEC aqua (intermittent, freshwater)	2.75 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	3.6 mg/kg dwt
PNEC sediment (marine water)	2.9 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.63 mg/kg dwt

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<b>PNEC (Oral)</b>	
PNEC oral (secondary poisoning)	380 mg/kg food
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	580 mg/l
<b>glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)</b>	
<b>DNEL/DMEL (Workers)</b>	
Acute - local effects, inhalation	0.42 mg/m³
Long-term - systemic effects, dermal	6.25 mg/kg bodyweight/day
Long-term - local effects, inhalation	0.21 mg/m³
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	0.07 mg/kg bodyweight/day
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.003 mg/l
PNEC aqua (marine water)	0.00025 mg/l
PNEC aqua (intermittent, freshwater)	0.006 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.091 mg/kg dwt
PNEC sediment (marine water)	0.009 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.21 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	0.8 mg/l

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

### 8.2.2. Personal protection equipment

#### 8.2.2.1. Eye and face protection

##### Eye protection:

Use splash goggles when eye contact due to splashing is possible. ISO 16321-1

#### 8.2.2.2. Skin protection

##### Skin and body protection:

Wear suitable protective clothing. EN ISO 13688. EN 13034

##### Hand protection:

In case of repeated or prolonged contact wear gloves. Nitrile rubber. ISO 374-1. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear

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### 8.2.2.3. Respiratory protection

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. EN 143. Breathing apparatus with filter. A-P2. . Breathing equipment is only to be used in order to handle the residual risk of short term jobs if all other risk minimizing measures have been carried out e.g. retention and/or local exhaust

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

#### Other information:

Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Always wash hands after handling the product.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: colourless.
Odour	: Not available
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: > 78 °C (literature data)
Flammability	: Not available
Explosive properties	: Product is not explosive. Explosive vapour/air mixtures may be formed.
Oxidising properties	: Non oxidizing.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: > 45 °C (literature data)
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 7.5 – 8 (20 °C)
pH solution concentration	: 100 %
Viscosity, kinematic	: Not available
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport. Flammable liquid and vapour.

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### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)  
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)  
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

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ATE CLP (oral)	> 2000 mg/kg bodyweight
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#### glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)

LD50 oral rat	77 mg/kg bodyweight (female; Regulation by EPA)
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LD50 dermal rabbit	> 2000 mg/kg bodyweight (Regulation by EPA OPP 81-2)
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LC50 Inhalation - Rat (Dust/Mist)	0.28 mg/l/4h (female; OECD 403)
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Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)  
pH: 7.5 – 8 (20 °C)

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)  
pH: 7.5 – 8 (20 °C)

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

STOT-single exposure : May cause respiratory irritation.

#### glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)

STOT-single exposure	May cause respiratory irritation.
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STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified (Based on available data, the classification criteria are not met)



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Hazardous to the aquatic environment, long-term (chronic) : Not classified (Based on available data, the classification criteria are not met)

glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)	
LC50 - Fish [1]	13 mg/l (96 h; EPA; Lepomis macrochirus; U.S. EPA)
LC50 - Fish [2]	10 mg/l (96 h; Oncorhynchus mykiss; U.S. EPA)
EC50 - Crustacea [1]	3 mg/l (Acartia tonsa; ISO 14669 Study)
EC50 - Other aquatic organisms [1]	0.78 mg/l (96 h; Crassostrea virginica; Salt water study; Regulation by EPA FIFRA 72-3)
EC50 72h algae	0.6 mg/l (72 h; Scenedesmus subspicatus; EU Method C.3)
NOEC (chronic)	0.021 mg/l (21 d; Daphnia magna; OECD 211)
NOEC chronic fish	1.6 mg/l (97 d; Oncorhynchus mykiss; (OECD 210 method))
NOEC chronic crustacea	5 mg/l (21 d; Daphnia magna)
NOEC chronic algae	0.025 mg/l (72 h; Scenedesmus subspicatus; EU Method C.3)

### 12.2. Persistence and degradability

Fixation Solution	
Persistence and degradability	Not rapidly degradable
Ethanol (64-17-5)	
Persistence and degradability	Readily biodegradable.
Biodegradation	84 % (20 d; Literature data)
glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)	
Persistence and degradability	Readily biodegradable.
Biodegradation	> 90 % (OECD 301A method)

### 12.3. Bioaccumulative potential

Ethanol (64-17-5)	
Partition coefficient n-octanol/water (Log Pow)	-0.35 (24 °C; pH 7,4; (OECD 107 method))
Bioaccumulative potential	Bioaccumulation unlikely.
glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)	
Bioconcentration factor (BCF REACH)	0.5 (calculated; BCFBAF v3.00)
Partition coefficient n-octanol/water (Log Pow)	-0.36
Bioaccumulative potential	Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.

### 12.4. Mobility in soil

Ethanol (64-17-5)	
Surface tension	22.31 mN/m (20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	≈ 0.2 (Handbook and/or Scientific papers)
Ecology - soil	Small adsorption.
glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)	
Ecology - soil	Adsorbs into the soil.

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### 12.5. Results of PBT and vPvB assessment

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	Ethanol (64-17-5), glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Ethanol (64-17-5), glutaral, glutaraldehyde, 1,5-pentanedial (111-30-8)

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods	: Disposal must be done according to official regulations. European waste catalogue. Do not discharge into drains or the environment. Do not dispose of with domestic waste.
Product/Packaging disposal recommendations	: Recycle or dispose of in compliance with current legislation.
Additional information	: Flammable vapours may accumulate in the container.
HP Code	: HP3 - "Flammable:" – flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C; – flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air; – flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction; – flammable gaseous waste: gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa; – water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities; – other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste. HP5 - "Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:" waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.

## SECTION 14: Transport information






In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1170	UN 1170	UN 1170	UN 1170	UN 1170
14.2. UN proper shipping name				
ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	Ethanol solution	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
Transport document description				
UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III, (D/E)	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III	UN 1170 Ethanol solution, 3, III	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III

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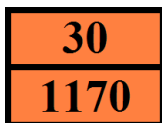
according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

14.3. Transport hazard class(es)				
3	3	3	3	3
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Classification code (ADR) : F1  
Special provisions (ADR) : 144, 601  
Limited quantities (ADR) : 5I  
Excepted quantities (ADR) : E1  
Transport category (ADR) : 3  
Hazard identification number (Kemler No.) : 30  
Orange plates :



Tunnel restriction code (ADR) : D/E

#### Transport by sea

Special provisions (IMDG) : 144, 223  
Limited quantities (IMDG) : 5 L  
Excepted quantities (IMDG) : E1  
EmS-No. (Fire) : F-E  
EmS-No. (Spillage) : S-D

#### Air transport

PCA Excepted quantities (IATA) : E1  
PCA Limited quantities (IATA) : Y344  
PCA limited quantity max net quantity (IATA) : 10L  
PCA packing instructions (IATA) : 355  
PCA max net quantity (IATA) : 60L  
CAO max net quantity (IATA) : 220L  
Special provisions (IATA) : A3, A58, A180

#### Inland waterway transport

Classification code (ADN) : F1  
Special provisions (ADN) : 144, 601  
Limited quantities (ADN) : 5 L  
Excepted quantities (ADN) : E1  
Carriage permitted (ADN) : T  
Additional requirements/Remarks (ADN) :

#### Rail transport

Classification code (RID) : F1  
Special provisions (RID) : 144, 601  
Limited quantities (RID) : 5L  
Excepted quantities (RID) : E1

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Transport category (RID) : 3  
Hazard identification number (RID) : 30

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Other information, restriction and prohibition regulations : Take note of Directive 94/33/EC on the protection of young people at work.

#### REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
3(a)	Fixation Solution ; Ethanol
3(b)	Fixation Solution ; Ethanol ; glutaral, glutaraldehyde, 1,5-pentanedial
3(c)	glutaral, glutaraldehyde, 1,5-pentanedial
40.	Ethanol

#### REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

#### REACH Candidate List (SVHC)

Contains substance(s) listed on the REACH Candidate List in concentrations  $\geq 0.1\%$  or SCL: glutaral, glutaraldehyde, 1,5-pentanedial (EC 203-856-5, CAS 111-30-8)

#### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

#### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

#### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

#### Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

#### Seveso Directive (Disaster Risk Reduction)

Seveso III Part I (Categories of dangerous substances)	Qualifying quantity (tonnes)	
	Lower-tier	Upper-tier
P5c FLAMMABLE LIQUIDS Flammable liquids, Categories 2 or 3 not covered by P5a and P5b	5000	50000

#### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

#### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

# Fixation Solution

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 15.1.2. National regulations

#### Germany

Employment restrictions	: Employment prohibitions or restrictions on the protection of young people at work according to § 22 JArbSchG in the case of formation of hazardous substances have to be observed.
National regulations	: This safety data sheet is for informational purposes only and does not fully comply with national legal requirements. The national distributor is responsible for a legally compliant safety data sheet.
National Rules and Recommendations	: TRGS 400: Risk Assessment for Activities involving Hazardous Substances. TRGS 401: Risks resulting from skin contact - identification, assessment, measures. TRGS 402: Identification and Assessment of the Risks from Activities involving Hazardous Substances: Inhalation Exposure. TRGS 510: Storage of hazardous substances in non-stationary containers. TRGS 520: Construction and operation of collection points and temporary storage for small amounts of hazardous waste. TRGS 900: Occupational Exposure Limits.
Water hazard class (WGK)	: WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1).
Storage class (LGK, TRGS 510)	: LGK 3 - Flammable liquids.
Hazardous Incident Ordinance (12. BImSchV)	: Listed in the 12. BImSchV (Annex I) under: 1.2.5.3 - Quantity threshold for operational area under § 1 para. 1 - Sentence 1 :5000000 kg - Sentence 2 :50000000 kg

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration

# Fixation Solution

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative
CAS-No.	Chemical Abstract Service number

Data sources : Information provided by the manufacturer. MSDS of the supplier. European Chemicals Agency, <http://echa.europa.eu/>.

Department issuing data specification sheet: : KFT Chemieservice GmbH  
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D-64347 Griesheim  
  
Phone: +49 6155-8981-400  
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SDS Service: +49 6155 8981-522

Contact person : Iulia Trocina

Full text of H- and EUH-statements:	
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
EUH071	Corrosive to the respiratory tract.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A

# Fixation Solution

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
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Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Flam. Liq. 3	H226	On basis of test data
Skin Sens. 1	H317	Calculation method
STOT SE 3	H335	Calculation method

KFT SDS EU 11 - Version 23.2

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.