

## Safety Data Sheet

according to UK REACH Regulation

### DELAUNAY's Fixative

Revision date: 22.06.2023

Product code: 16001.xxxxx

Page 1 of 15

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

### 1.1. Product identifier

DELAUNAY's Fixative

UFI: 6S9E-V12A-V00X-9SGD

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

#### Use of the substance/mixture

Use as laboratory reagent. The product is intended for research, analysis and scientific education.

#### Uses advised against

Any non-intended use.

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

Company name: MORPHISTO GmbH  
Street: Schumannstr. 142/144  
Place: D-63069 Offenbach  
Telephone: +49 (0) 69 / 400 3019-60      Telefax: +49 (0) 69 / 400 3019-64  
E-mail: info@morphisto.de  
Contact person: Morphisto GmbH  
E-mail: gefahrstoffmanagement@morphisto.de  
Internet: http://www.morphisto.de

### 1.4. Emergency telephone number:

Poison Information Center Mainz, Germany, Tel: +49(0)6131/19240

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### GB CLP Regulation

Flam. Liq. 2; H225  
Eye Irrit. 2; H319  
STOT SE 3; H336

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

#### GB CLP Regulation

#### Hazard components for labelling

Acetone

Signal word: Danger

#### Pictograms:



#### Hazard statements

H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.

#### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

## Safety Data Sheet

according to UK REACH Regulation

### DELAUNAY's Fixative

Revision date: 22.06.2023

Product code: 16001.xxxxx

Page 2 of 15

P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P312 Call a POISON CENTER/doctor if you feel unwell.  
P337+P313 If eye irritation persists: Get medical advice/attention.

#### Special labelling of certain mixtures

EUH066 Repeated exposure may cause skin dryness or cracking.

#### Labelling of packages where the contents do not exceed 125 ml

Signal word: Danger

Pictograms:



#### 2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulating and toxic (PBT) or very persistent and very bioaccumulating (vPvB) at levels of 0.1% or higher. Ecological information: The substance/mixture does not contain any components that are considered to be hazardous according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in amounts of 0.1 % or more have endocrine disrupting properties. Toxicological information: The substance/mixture does not contain any components that are to be classified according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1 % or more have endocrine disrupting properties.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
67-64-1	Acetone			45 - < 50 %
	200-662-2	606-001-00-8	01-2119471330-49	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066			
64-17-5	Ethanol, Ethylalkohol			45 - < 50 %
	200-578-6	603-002-00-5	01-2119457610-43	
	Flam. Liq. 2, Eye Irrit. 2; H225 H319			
78-93-3	butanone; ethyl methyl ketone			< 1 %
	201-159-0	606-002-00-3	01-2119457290-43	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066			

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

##### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
67-64-1	200-662-2	Acetone	45 - < 50 %
		inhalation: LC50 = 76 mg/l (vapours); dermal: LD50 = 20000 mg/kg; oral: LD50 = 5800 mg/kg	
64-17-5	200-578-6	Ethanol, Ethylalkohol	45 - < 50 %
		inhalation: LC50 = 124,7 mg/l (vapours); dermal: LD50 = >2000 mg/kg; oral: LD50 = >5000 mg/kg Eye Irrit. 2; H319: >= 50 - 100	
78-93-3	201-159-0	butanone; ethyl methyl ketone	< 1 %
		dermal: LD50 = >2000 mg/kg; oral: LD50 = 2054 mg/kg	

**Safety Data Sheet**

according to UK REACH Regulation

**DELAUNAY's Fixative**

Revision date: 22.06.2023

Product code: 16001.xxxxx

Page 3 of 15

**Further Information**

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

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

First aider: Pay attention to self-protection! In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove contaminated, saturated clothing immediately. Remove casualty to fresh air and keep warm and at rest. To supervise the blood circulation.

**After inhalation**

Remove casualty to fresh air and keep warm and at rest. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). If unconscious but breathing normally, place in recovery position and seek medical advice. In case of breathing difficulties administer oxygen. As soon as possible glucocorticoid dose aerosol can breathe repeated deep inhalation.

**After contact with skin**

Take off immediately all contaminated clothing and wash it before reuse. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. If skin irritation or rash occurs: Get medical advice/attention.

**After contact with eyes**

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**After ingestion**

Rinse mouth thoroughly with water. Let water be drunk in little sips (dilution effect). Do NOT induce vomiting. Never give anything by mouth to an unconscious person or a person with cramps. Call a physician immediately.

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

Headache. Dizziness. Nausea. Intoxication. unconsciousness. dehydration of skin..Functional disorders of the CNS and cardiovascular system.

**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**

Carbon dioxide (CO<sub>2</sub>). Dry extinguishing powder. alcohol resistant foam. Atomized water.

**Unsuitable extinguishing media**

High power water jet.

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

Highly flammable. Vapours can form explosive mixtures with air. Concentrated vapours are heavier than air.

Reignition possible over considerable distance.

In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO<sub>2</sub>).

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes.

**Additional information**

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Fight fire remotely due to the risk of explosion.

**Safety Data Sheet**

according to UK REACH Regulation

**DELAUNAY's Fixative**

Revision date: 22.06.2023

Product code: 16001.xxxxx

Page 4 of 15

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

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Ventilate affected area. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

**For non-emergency personnel**

Remove persons to safety. Clear danger zone. Follow emergency plan. Consult an expert.

**For emergency responders**

Move undamaged containers from immediate hazard area if it can be done safely. Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Beware of reignition.

**6.2. Environmental precautions**

Do not allow uncontrolled discharge of product into the environment. Explosion risk. Discharge into the environment must be avoided. Prevent spread over a wide area (e.g. by containment or oil barriers). Cover drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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

Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

**For cleaning up**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Clean contaminated articles and floor according to the environmental legislation.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

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

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Provide adequate ventilation as well as local exhaustion at critical locations. Personal protection equipment (See section 8.) Always close containers tightly after the removal of product. Before starting work, apply solvent-resistant skincare preparations. Use only antistatically equipped (spark-free) tools.

**Advice on protection against fire and explosion**

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air. Flammable vapours can accumulate in head space of closed systems. Heating causes rise in pressure with risk of bursting. Have fire-extinguishers in readiness before opening containers. Wear anti-static footwear and clothing

**Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Protect skin by using skin protective cream. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff. Take off contaminated clothing and wash it before reuse. Street clothing should be stored separately from work clothing.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed. Store in a place accessible by authorized persons only. Provide adequate

## Safety Data Sheet

according to UK REACH Regulation

### DELAUNAY's Fixative

Revision date: 22.06.2023

Product code: 16001.xxxxx

Page 5 of 15

ventilation as well as local exhaust at critical locations. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep/Store only in original container. Ensure adequate ventilation of the storage area. Make sure spills can be contained (e.g. sump pallets or kerbed areas). Keep away from flammable materials.

#### Hints on joint storage

Do not store together with: food and feed. pharmaceuticals. Infectious substances. Radioactive substances. Explosive substances. Oxidizing substances. Oxidizing liquids. Organic peroxides. Self-reactive substances and mixtures. Pyrophoric solids. Substances which in contact with water form flammable gases. Ammonium nitrate and preparations containing ammonium nitrate. Oxidizing agent. Gas. Explosives. Pyrophoric liquids and solids. Oxidizing liquids. Oxidizing solids. Non-combustible toxic substances. .

#### Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.

Recommended storage temperature: 15-25 °C

Protect against: frost. UV-radiation/sunlight. heat. Humidity

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

See section 1.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
67-64-1	Acetone	500	1210		TWA (8 h)	WEL
		1500	3620		STEL (15 min)	WEL
78-93-3	Butan-2-one (methyl ethyl ketone)	200	600		TWA (8 h)	WEL
		300	899		STEL (15 min)	WEL
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL

##### Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
78-93-3	Butan-2-one	butan-2-one	70 µmol/L	urine	Post shift

## Safety Data Sheet

according to UK REACH Regulation

### DELAUNAY's Fixative

Revision date: 22.06.2023

Product code: 16001.xxxxx

Page 6 of 15

#### DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
67-64-1	Acetone			
Worker DNEL, long-term		inhalation	systemic	1210 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	local	2420 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	186 mg/kg bw/day
64-17-5	Ethanol, Ethylalkohol			
Worker DNEL, acute		inhalation	local	1900 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	343 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	950 mg/m <sup>3</sup>
Consumer DNEL, acute		inhalation	local	950 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	206 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	114 mg/m <sup>3</sup>
Consumer DNEL, long-term		oral	systemic	87 mg/kg bw/day

#### PNEC values

CAS No	Substance	Value
67-64-1	Acetone	
Freshwater		10,6 mg/l
Freshwater (intermittent releases)		21 mg/l
Marine water		1,06 mg/l
Marine water (intermittent releases)		21 mg/l
Freshwater sediment		30,4 mg/kg
Marine sediment		3,04 mg/kg
Micro-organisms in sewage treatment plants (STP)		100 mg/l
Soil		29,5 mg/kg
64-17-5	Ethanol, Ethylalkohol	
Freshwater		0,96 mg/l
Freshwater (intermittent releases)		2,75 mg/l
Marine water		0,79 mg/l
Marine water (intermittent releases)		2,75 mg/l
Freshwater sediment		3,6 mg/kg
Marine sediment		2,9 mg/kg
Secondary poisoning		0,72 mg/kg
Micro-organisms in sewage treatment plants (STP)		580 mg/l
Soil		0,63 mg/kg

#### 8.2. Exposure controls



**Safety Data Sheet**

according to UK REACH Regulation

**DELAUNAY's Fixative**

Revision date: 22.06.2023

Product code: 16001.xxxxx

Page 7 of 15

**Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Provide adequate ventilation as well as local exhaust at critical locations. Use extractor hood (laboratory). Provide washing facilities at the workplace, provide an eye shower or eyewash bottle and mark them. Have fire-extinguishers in readiness before opening containers.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Suitable eye protection: Eye glasses with side protection EN 166

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. In case of prolonged or frequently repeated skin contact: Pull-over gloves of rubber. Suitable material:

Butyl rubber., CR (polychloroprene, chloroprene rubber) (0,5 mm) (penetration time (maximum wearing period):  $\geq 1$  h)

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

**Skin protection**

Protective clothing. (flame-retardant), Wear anti-static footwear and clothing

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

**Respiratory protection**

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

Insufficient ventilation.

exceeding exposure limit values

Suitable respiratory protective equipment: Self-contained respirator (breathing apparatus)

**Thermal hazards**

Flame-retardant protective clothing. Wear anti-static footwear and clothing

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

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

Physical state:	liquid
Colour:	colourless
Odour:	characteristic
Melting point/freezing point:	-17 °C
Boiling point or initial boiling point and boiling range:	56 °C
Flammability:	not applicable
Lower explosion limits:	2,5 vol. %
Upper explosion limits:	15 vol. %
Flash point:	< -20 °C
Auto-ignition temperature:	400 °C
Decomposition temperature:	not determined

**Safety Data Sheet**

according to UK REACH Regulation

**DELAUNAY's Fixative**

Revision date: 22.06.2023

Product code: 16001.xxxxx

Page 8 of 15

pH-Value:	not determined
Viscosity / kinematic:	not determined
Water solubility: (at 20 °C)	miscible.
Solubility in other solvents	miscible.
Partition coefficient n-octanol/water:	not determined
Vapour pressure: (at 20 °C)	246 hPa
Vapour pressure: (at 50 °C)	814 hPa
Density (at 20 °C):	0,79 g/cm <sup>3</sup>
Relative vapour density:	not determined

**9.2. Other information**
**Information with regard to physical hazard classes**
**Explosive properties**

May form explosive peroxides. In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

**Sustaining combustion:**

Sustaining combustion

**Oxidizing properties**

Combustible liquid.

**Other safety characteristics**

Evaporation rate: not determined

 Viscosity / dynamic:  
(at 25 °C) not determined

Flow time: not determined

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

Highly flammable. Explosive.

**10.2. Chemical stability**

Decomposes when heated.

**10.3. Possibility of hazardous reactions**

Explosion risk in contact with: Violent reaction with: Hydrogenium peroxide. Oxidizing agents, strong. Acids. Bromine trifluoride. Chloroform. Chlorine. potassium. Calciumhypochlorite. Halogenes. Acetic anhydride. Chlorates. permanganates, e.g. potassium permanganate. Mixtures of sodium hypochlorite. Sodium peroxide. nitrosyl compounds. mercury (Hg). Oxygen. Silver nitrates. Nitrogen monoxide, nitrogen dioxide, nitrous oxide, ammonia.

**10.4. Conditions to avoid**

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air. Handle with care - avoid bumps, friction and impact. Explosive. Remove all sources of ignition. Keep away from: Heat. Ignition. Protect from direct sunlight.

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge.

**10.5. Incompatible materials**

Protect against: Contact with air/oxygen. Oxidizing agents. Strong acid Base. Fluorine. Reducing agents. Nitric acid. Alkali metals. Halogenes. Sulphur dioxide (SO<sub>2</sub>). Hydrogenium peroxide. Bromine trifluoride. Chloroform. difluordioxide. isoprene. nitrosulphic acid. nitromethane. nitrosyl chloride (catalyst). nitrosyl perchlorate. peroxomonosulfuric acid. phosphoryl chloride. Information is given in subsection 10.3.

**10.6. Hazardous decomposition products**

May form explosive peroxides. In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO<sub>2</sub>).



**Safety Data Sheet**

according to UK REACH Regulation

**DELAUNAY's Fixative**

Revision date: 22.06.2023

Product code: 16001.xxxxx

Page 9 of 15

**SECTION 11: Toxicological information**
**11.1. Information on hazard classes as defined in GB CLP Regulation**
**Acute toxicity**

Based on available data, the classification criteria are not met.

**ATEmix calculated**

ATE (oral) &gt; 2000 mg/kg; ATE (dermal) &gt; 2000 mg/kg; ATE (inhalation vapour) &gt; 20 mg/l; ATE (inhalation dust/mist) &gt; 5 mg/l

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
67-64-1	Acetone					
	oral	LD50 mg/kg	5800	Rat	RTECS	
	dermal	LD50 mg/kg	20000	Rabbit	IUCLID	
	inhalation (4 h) vapour	LC50	76 mg/l	Rat		
64-17-5	Ethanol, Ethylalkohol					
	oral	LD50 mg/kg	>5000	Rat	ECHA Dossier	
	dermal	LD50 mg/kg	>2000	Rabbit	ECHA Dossier	
	inhalation (4 h) vapour	LC50 mg/l	124,7	Rat	ECHA Dossier	
78-93-3	butanone; ethyl methyl ketone					
	oral	LD50 mg/kg	2054	Ratte	SDB Lieferant	
	dermal	LD50 mg/kg	>2000	Rabbit	ECHA Dossier	

**Irritation and corrosivity**

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

**STOT-single exposure**

May cause drowsiness or dizziness. (Acetone)

**STOT-repeated exposure**

Repeated exposure may cause skin dryness or cracking.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**11.2. Information on other hazards**
**Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

**Further information**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

## Safety Data Sheet

according to UK REACH Regulation

### DELAUNAY's Fixative

Revision date: 22.06.2023

Product code: 16001.xxxxx

Page 10 of 15

## SECTION 12: Ecological information

### 12.1. Toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
67-64-1	Acetone					
	Acute fish toxicity	LC50 mg/l 5540	96 h	Oncorhynchus mykiss	ECHA	
	Acute crustacea toxicity	EC50 mg/l 6100	48 h	Daphnia magna	ECHA	
	Acute bacteria toxicity	(EC50 mg/l) 61150	0,5 h		ECHA	
64-17-5	Ethanol, Ethylalkohol					
	Acute fish toxicity	LC50 mg/l 14200	96 h	Pimephales promelas (fathead minnow)	ECHA Dossier	
	Acute algae toxicity	ErC50 275 mg/l	72 h	Chlorella vulgaris	ECHA Dossier	
	Acute crustacea toxicity	EC50 mg/l 5012	48 h	Ceriodaphnia dubia (water flea)	ECHA Dossier	
	Crustacea toxicity	NOEC 9,6 mg/l	9 d	Daphnia magna	ECHA Dossier	
78-93-3	butanone; ethyl methyl ketone					
	Acute fish toxicity	LC50 mg/l 2993	96 h	Pimephales promelas	ECHA Dossier	OECD 203
	Acute algae toxicity	ErC50 mg/l 1972	72 h	Pseudokirchnerella subcapitata	ECHA Dossier	OECD 201
	Acute crustacea toxicity	EC50 308 mg/l	48 h	Daphnia magna	ECHA Dossier	OECD 202

### 12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
67-64-1	Acetone			
	Formation of carbon dioxide	90,9 %	28	
64-17-5	Ethanol, Ethylalkohol			
	other guideline	84%	20	ECHA Dossier
	Biodegradable.			
78-93-3	butanone; ethyl methyl ketone			
		98%	28	ECHA Dossier
	Readily biodegradable (according to OECD criteria).			

### 12.3. Bioaccumulative potential

The product has not been tested.

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
67-64-1	Acetone	-0,24
64-17-5	Ethanol, Ethylalkohol	-0,31
78-93-3	butanone; ethyl methyl ketone	0,3

### 12.4. Mobility in soil

The product has not been tested.

**Safety Data Sheet**

according to UK REACH Regulation

**DELAUNAY's Fixative**

Revision date: 22.06.2023

Product code: 16001.xxxxx

Page 11 of 15

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

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

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

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation. Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal. Non-contaminated packages may be recycled.

According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

**List of Wastes Code - residues/unused products**

160508 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded organic chemicals consisting of or containing hazardous substances; hazardous waste

**List of Wastes Code - used product**

160508 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded organic chemicals consisting of or containing hazardous substances; hazardous waste

**List of Wastes Code - contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

**Contaminated packaging**

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

**SECTION 14: Transport information****Land transport (ADR/RID)****14.1. UN number or ID number:**

UN 1993

**14.2. UN proper shipping name:**FLAMMABLE LIQUID, N.O.S.  
(Acetone/Ethanol)**14.3. Transport hazard class(es):**

3

**14.4. Packing group:**

II

Hazard label:

3



Classification code:

F1

Special Provisions:

274 601 640D

Limited quantity:

1 L

Excepted quantity:

E2

Transport category:

2

**Safety Data Sheet**

according to UK REACH Regulation

**DELAUNAY's Fixative**

Revision date: 22.06.2023

Product code: 16001.xxxxx

Page 12 of 15

 Hazard No: 33  
 Tunnel restriction code: D/E

**Inland waterways transport (ADN)**

**14.1. UN number or ID number:** UN 1993  
**14.2. UN proper shipping name:** FLAMMABLE LIQUID, N.O.S.  
 (Acetone/Ethanol)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
 Hazard label: 3



Classification code: F1  
 Special Provisions: 274 601 640D  
 Limited quantity: 1 L  
 Excepted quantity: E2

**Marine transport (IMDG)**

**14.1. UN number or ID number:** UN 1993  
**14.2. UN proper shipping name:** FLAMMABLE LIQUID, N.O.S.  
 (acetone/ethanol)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
 Hazard label: 3



Marine pollutant: NO  
 Special Provisions: 274  
 Limited quantity: 1 L  
 Excepted quantity: E2  
 EmS: F-E, S-E

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number or ID number:** UN 1993  
**14.2. UN proper shipping name:** FLAMMABLE LIQUID, N.O.S.  
 (acetone/ethanol)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
 Hazard label: 3



Special Provisions: A3  
 Limited quantity Passenger: 1 L  
 Passenger LQ: Y341  
 Excepted quantity: E2  
 IATA-packing instructions - Passenger: 353  
 IATA-max. quantity - Passenger: 5 L  
 IATA-packing instructions - Cargo: 364  
 IATA-max. quantity - Cargo: 60 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**Safety Data Sheet**

according to UK REACH Regulation

**DELAUNAY's Fixative**

Revision date: 22.06.2023

Product code: 16001.xxxxx

Page 13 of 15

**14.6. Special precautions for user**

Warning: Combustible liquid. Refer to section 6-8

**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****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

2010/75/EU (VOC): 99,802 % (788,438 g/l)

2004/42/EC (VOC): 99,802 % (788,438 g/l)

Information according to 2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

**Additional information**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 1 - slightly hazardous to water

**15.2. Chemical safety assessment**

For the following substances of this mixture a chemical safety assessment has been carried out:

Acetone

Ethanol, Ethylalkohol

butanone; ethyl methyl ketone

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 2,7,10,11,12,15,16.

Rev. 1.0; 08.06.2016, Initial release.

Rev. 1,1; 29.06.2021; Revision 1-16.

Rev. 2,0; 22.06.2023; general adjustment(s)

**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations

Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

LC50: Lethal concentration, 50 percent

LD50: Lethal dosis, 50 percent

**Safety Data Sheet**

according to UK REACH Regulation

**DELAUNAY's Fixative**

Revision date: 22.06.2023

Product code: 16001.xxxxx

Page 14 of 15

NOAEL: No observed effect Level  
 DNEL: Derived No Effect Level  
 PNEC: predicted no effect concentration  
 CLP: Classification, labelling and Packaging  
 REACH: Registration, Evaluation and Authorization of Chemicals  
 GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals  
 UN: United Nations  
 CAS: Chemical Abstracts Service  
 DNEL: Derived No Effect Level  
 DMEL: Derived Minimal Effect Level  
 PNEC: Predicted No Effect Concentration  
 ATE: Acute toxicity estimate  
 LC50: Lethal concentration, 50%  
 LD50: Lethal dose, 50%  
 LL50: Lethal loading, 50%  
 EL50: Effect loading, 50%  
 EC50: Effective Concentration 50%  
 ErC50: Effective Concentration 50%, growth rate  
 NOEC: No Observed Effect Concentration  
 BCF: Bio-concentration factor  
 PBT: persistent, bioaccumulative, toxic  
 vPvB: very persistent, very bioaccumulative  
 ADR: Accord européen sur le transport des marchandises dangereuses par Route  
 (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 RID: Regulations concerning the international carriage of dangerous goods by rail  
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
 (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation  
 intérieures)  
 EmS: Emergency Schedules  
 MFAAG: Medical First Aid Guide  
 MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
 IBC: Intermediate Bulk Container  
 VOC: Volatile Organic Compounds  
 SVHC: Substance of Very High Concern  
 For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

**Classification for mixtures and used evaluation method according to GB CLP Regulation**

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Eye Irrit. 2; H319	Calculation method
STOT SE 3; H336	Calculation method

**Relevant H and EUH statements (number and full text)**

H225 Highly flammable liquid and vapour.  
 H319 Causes serious eye irritation.  
 H336 May cause drowsiness or dizziness.  
 EUH066 Repeated exposure may cause skin dryness or cracking.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not

## Safety Data Sheet

according to UK REACH Regulation

### DELAUNAY's Fixative

Revision date: 22.06.2023

Product code: 16001.xxxxx

Page 15 of 15

necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*