



## Safety Data Sheet according to (EC) No 1907/2006 as amended

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LOCTITE MF 300 known as MF300 FOAM FLUX

SDS No. : 243913

V007.0

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Replaces version from: 23.11.2018

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

#### 1.1. Product identifier

LOCTITE MF 300 known as MF300 FOAM FLUX

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

Intended use:

Liquid Flux

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

Henkel Belgium N.V.

Esplanade 1

1020 Brussels

Belgium

Phone: +32 (2) 421 2711

SDSinfo.Adhesive@henkel.com

For Safety Data Sheet updates please visit our website <https://mysds.henkel.com/index.html#/appSelection> or [www.henkel-adhesives.com](http://www.henkel-adhesives.com).

#### 1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

### SECTION 2: Hazards identification

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

##### Classification (CLP):

Serious eye damage	Category 1
H318 Causes serious eye damage.	
Skin irritation	Category 2
H315 Causes skin irritation.	

#### 2.2. Label elements

##### Label elements (CLP):

Hazard pictogram:



Contains

Glutaric acid

adipic acid

Signal word:

Danger

**Hazard statement:** H315 Causes skin irritation.  
H318 Causes serious eye damage.

**Supplemental information** Contains: 2,4,7,9-Tetramethyldec-5-yne-4,7-diol May produce an allergic reaction.

**Precautionary statement:** P261 Avoid breathing fume.  
**Prevention** P280 Wear eye protection/face protection.

**Precautionary statement:** P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
**Response** P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### 2.3. Other hazards

Avoid breathing fumes given out during soldering.

After handling solder wash hands with soap and water before eating, drinking or smoking.

Keep out of reach of children.

Flux fumes may irritate the nose, throat and lungs and may after prolonged/repeated exposure give an allergic reaction (asthma).

Following substances are present in a concentration  $\geq$  the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in a concentration  $\geq$  the concentration limit for depiction in Section 3 that are assessed to be a PBT, vPvB or ED.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M-factors and ATEs	Add. Information
Glutaric acid 110-94-1 203-817-2 01-2120264127-58	1- < 3 %	Skin Corr. 1A, H314 Eye Dam. 1, H318		
adipic acid 124-04-9 204-673-3 01-2119457561-38	1- < 3 %	Eye Dam. 1, H318		
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3 204-809-1 01-2119954390-39	0,1- < 1 %	Aquatic Chronic 3, H412 Eye Dam. 1, H318 Skin Sens. 1B, H317		

For full text of the H - statements and other abbreviations see section 16 "Other information".  
Substances without classification may have community workplace exposure limits available.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**Inhalation:**

Move to fresh air. If symptoms persist, seek medical advice.

**Skin contact:**

Rinse with running water and soap.

Obtain medical attention if irritation persists.

**Eye contact:**

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

**Ingestion:**

Do not induce vomiting.

Seek medical advice.

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

SKIN: Redness, inflammation.

After eye contact: Corrosive, may cause permanent damage to eyes (impairment of vision).

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

See section: Description of first aid measures

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media:**

water, carbon dioxide, foam, powder

**Extinguishing media which must not be used for safety reasons:**

High pressure waterjet

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

The flux medium will give rise to irritating fumes.

**5.3. Advice for firefighters**

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

**Additional information:**

In case of fire, keep containers cool with water spray.

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

Avoid contact with skin and eyes.

Wear protective equipment.

Ensure adequate ventilation.

**6.2. Environmental precautions**

Do not empty into drains / surface water / ground water.

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

Dispose of contaminated material as waste according to Section 13.

For small spills wipe up with paper towel and place in container for disposal.

For large spills absorb onto inert absorbent material and place in sealed container for disposal.

**6.4. Reference to other sections**

See advice in section 8

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

Avoid skin and eye contact.

See advice in section 8

**Hygiene measures:**

Do not eat, drink or smoke while working.

Good industrial hygiene practices should be observed.

After handling solder wash hands with soap and water before eating, drinking or smoking.

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

Store only in the original container.

Ensure good ventilation/extraction.

Refer to Technical Data Sheet

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

Liquid Flux

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Occupational Exposure Limits**

Valid for

Great Britain

None

**Occupational Exposure Limits**

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Adipic acid 124-04-9 [ADIPIC ACID]		5	Time Weighted Average (TWA):		IR_OEL

**Predicted No-Effect Concentration (PNEC):**

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Glutaric acid 110-94-1	aqua (freshwater)		0,12 mg/l				
Glutaric acid 110-94-1	aqua (intermittent releases)		1,2 mg/l				
Glutaric acid 110-94-1	aqua (marine water)		0,012 mg/l				
Glutaric acid 110-94-1	sediment (freshwater)				0,097 mg/kg		
Glutaric acid 110-94-1	sediment (marine water)				0,01 mg/kg		
Glutaric acid 110-94-1	Soil				0,002 mg/kg		
Glutaric acid 110-94-1	Predator						no potential for bioaccumulation
Adipic acid 124-04-9	aqua (freshwater)		0,126 mg/l				
Adipic acid 124-04-9	aqua (intermittent releases)		0,46 mg/l				
Adipic acid 124-04-9	aqua (marine water)		0,0126 mg/l				
Adipic acid 124-04-9	sewage treatment plant (STP)						no hazard identified
Adipic acid 124-04-9	sediment (freshwater)				0,474 mg/kg		
Adipic acid 124-04-9	sediment (marine water)				0,0474 mg/kg		
Adipic acid 124-04-9	Soil				0,021 mg/kg		
Adipic acid 124-04-9	Air						no hazard identified
Adipic acid 124-04-9	oral						no potential for bioaccumulation
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	aqua (freshwater)		0,04 mg/l				
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	aqua (marine water)		0,004 mg/l				
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	aqua (intermittent releases)		0,4 mg/l				
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	Soil				0,028 mg/kg		
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	sediment (freshwater)				0,32 mg/kg		
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	sediment (marine water)				0,032 mg/kg		
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	Sewage treatment plant		7 mg/l				

**Derived No-Effect Level (DNEL):**

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Glutaric acid 110-94-1	Workers	inhalation	Long term exposure - systemic effects		11,52 mg/m3	no potential for bioaccumulation
Glutaric acid 110-94-1	Workers	inhalation	Acute/short term exposure - systemic effects		69,12 mg/m3	no potential for bioaccumulation
Glutaric acid 110-94-1	Workers	dermal	Long term exposure - systemic effects		3,27 mg/kg	no potential for bioaccumulation
Glutaric acid 110-94-1	Workers	dermal	Acute/short term exposure - systemic effects		19,6 mg/kg	no potential for bioaccumulation
Glutaric acid 110-94-1	General population	inhalation	Long term exposure - systemic effects		2,84 mg/m3	no potential for bioaccumulation
Glutaric acid 110-94-1	General population	inhalation	Acute/short term exposure - systemic effects		17,04 mg/m3	no potential for bioaccumulation
Glutaric acid 110-94-1	General population	dermal	Long term exposure - systemic effects		1,63 mg/kg	no potential for bioaccumulation
Glutaric acid 110-94-1	General population	dermal	Acute/short term exposure - systemic effects		9,8 mg/kg	no potential for bioaccumulation
Glutaric acid 110-94-1	General population	oral	Long term exposure - systemic effects		1,63 mg/kg	no potential for bioaccumulation
Glutaric acid 110-94-1	General population	oral	Acute/short term exposure - systemic effects		9,8 mg/kg	no potential for bioaccumulation
Adipic acid 124-04-9	General population	oral	Acute/short term exposure - systemic effects		19 mg/kg	no hazard identified
Adipic acid 124-04-9	General population	dermal	Long term exposure - systemic effects		19 mg/kg	no hazard identified
Adipic acid 124-04-9	General population	oral	Long term exposure - systemic effects		19 mg/kg	no hazard identified
Adipic acid 124-04-9	General population	inhalation	Long term exposure - systemic effects		65 mg/m3	no hazard identified
Adipic acid 124-04-9	Workers	dermal	Acute/short term exposure - systemic effects		38 mg/kg	no hazard identified
Adipic acid 124-04-9	Workers	inhalation	Acute/short term exposure - systemic effects		264 mg/m3	no hazard identified
Adipic acid 124-04-9	Workers	inhalation	Acute/short term exposure - local effects		5 mg/m3	no hazard identified
Adipic acid 124-04-9	Workers	dermal	Long term exposure - systemic effects		38 mg/kg	no hazard identified
Adipic acid 124-04-9	Workers	inhalation	Long term exposure - systemic effects		264 mg/m3	no hazard identified
Adipic acid 124-04-9	Workers	inhalation	Long term exposure - local effects		5 mg/m3	no hazard identified
Adipic acid 124-04-9	General population	dermal	Acute/short term exposure - systemic effects		19 mg/kg	no hazard identified
Adipic acid 124-04-9	General population	inhalation	Acute/short term exposure - systemic effects		65 mg/m3	no hazard identified
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	General population	oral	Long term exposure - systemic effects		0,25 mg/kg	
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	General population	oral	Acute/short term exposure -		0,75 mg/kg	

			systemic effects			
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	Workers	dermal	Long term exposure - systemic effects		0,5 mg/kg	
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	Workers	dermal	Acute/short term exposure - systemic effects		1,5 mg/kg	
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	General population	dermal	Long term exposure - systemic effects		0,25 mg/kg	
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	General population	dermal	Acute/short term exposure - systemic effects		0,75 mg/kg	
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	Workers	inhalation	Acute/short term exposure - systemic effects		5,28 mg/m <sup>3</sup>	
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	Workers	inhalation	Long term exposure - systemic effects		1,76 mg/m <sup>3</sup>	
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	General population	inhalation	Long term exposure - systemic effects		0,43 mg/m <sup>3</sup>	
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	General population	inhalation	Acute/short term exposure - systemic effects		1,29 mg/m <sup>3</sup>	

**Biological Exposure Indices:**

None

**8.2. Exposure controls:**

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

Ensure adequate ventilation.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area

Filter type: A (EN 14387)

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to &gt; 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; ≥ 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to &gt; 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; ≥ 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.

Protective eye equipment should conform to EN166.

Skin protection:

Wear suitable protective clothing.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

## SECTION 9: Physical and chemical properties

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

Delivery form	liquid
Colour	Clear, Colorless
Odor	None
Physical state	liquid
Melting point	0,0 °C (32 °F)
Initial boiling point	100,0 °C (212 °F)
Flammability	Currently under determination
Explosive limits	Currently under determination
Flash point	Not applicable, The product is not flammable.
Auto-ignition temperature	Not applicable, The product is not flammable.
Decomposition temperature	Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use
pH (20 °C (68 °F); Conc.: 100 %)	3,5 - 4,5
Viscosity (kinematic)	Currently under determination
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Soluble
Partition coefficient: n-octanol/water	Not applicable
Vapour pressure (20 °C (68 °F))	Mixture 2,33 kPa
Density (20 °C (68 °F))	1,011 g/cm3 None
Relative vapour density:	Not applicable
Particle characteristics	Not applicable Product is a liquid

### 9.2. Other information

Other information not applicable for this product

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

None if used properly.

### 10.2. Chemical stability

Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

See section reactivity

### 10.4. Conditions to avoid

Stable under normal conditions of storage and use.

### 10.5. Incompatible materials

None if used properly.



## SECTION 11: Toxicological information

### General toxicological information:

An allergic reaction cannot be excluded after repeated skin contact.

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

#### Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Glutaric acid 110-94-1	LD50	6.000 mg/kg	mouse	not specified
adipic acid 124-04-9	LD50	5.560 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	LD50	4.600 mg/kg	rat	not specified

#### Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
adipic acid 124-04-9	LD50	> 7.940 mg/kg	rabbit	not specified
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)

#### Acute inhalative toxicity:

Fumes evolved at soldering temperatures will irritate the nose, throat and lungs. Prolonged or repeated exposure to flux fumes may result in sensitisation in sensitive workers.

Hazardous substances CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
adipic acid 124-04-9	LC50	> 7,7 mg/l	dust/mist	4 h	rat	equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)

#### Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Glutaric acid 110-94-1	Sub-Category 1A (corrosive)	3 min	Human, EpiDerm™ SIT (EPI-200), Reconstructed Human Epidermis (RHE)	OECD Guideline 431 (In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method)
adipic acid 124-04-9	slightly irritating	24 h	rabbit	not specified
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	slightly irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

**Serious eye damage/irritation:**

Fumes emitted during soldering may irritate the eyes.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
adipic acid 124-04-9	Category 1 (irreversible effects on the eye)		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
2,4,7,9-Tetramethyldec-5- yne-4,7-diol 126-86-3	Category I		rabbit	EPA OTS 798.4500 (Acute Eye Irritation)

**Respiratory or skin sensitization:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
adipic acid 124-04-9	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
2,4,7,9-Tetramethyldec-5- yne-4,7-diol 126-86-3	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

**Germ cell mutagenicity:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
adipic acid 124-04-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
adipic acid 124-04-9	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
adipic acid 124-04-9	negative	in vitro mammalian chromosome aberration test	without		Chromosome Aberration Test
2,4,7,9-Tetramethyldec-5- yne-4,7-diol 126-86-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2,4,7,9-Tetramethyldec-5- yne-4,7-diol 126-86-3	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
2,4,7,9-Tetramethyldec-5- yne-4,7-diol 126-86-3	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
adipic acid 124-04-9	negative	oral: gavage		rat	Chromosome Aberration Test

**Carcinogenicity**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
adipic acid 124-04-9	not carcinogenic	oral: feed	2 y daily	rat	male	not specified

**Reproductive toxicity:**

No data available.

**STOT-single exposure:**

No data available.

**STOT-repeated exposure:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
adipic acid 124-04-9	NOAEL 750 mg/kg	oral: feed	2 y daily	rat	not specified
2,4,7,9-Tetramethyldec-5- yne-4,7-diol 126-86-3	NOAEL 150 mg/kg	oral: gavage	30 d daily	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

**Aspiration hazard:**

No data available.

**11.2 Information on other hazards**

not applicable

## SECTION 12: Ecological information

### General ecological information:

Do not empty into drains / surface water / ground water.

### 12.1. Toxicity

#### Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Glutaric acid 110-94-1	LC50	330 mg/l	24 h	Lepomis macrochirus	OECD Guideline 203 (Fish, Acute Toxicity Test)
adipic acid 124-04-9	LC50	> 1.000 mg/l	96 h	Danio rerio	other guideline:
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	LC50	36 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)

#### Toxicity (aquatic invertebrates):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Glutaric acid 110-94-1	EC50	6.840 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
adipic acid 124-04-9	EC50	46 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	EC50	99 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

#### Chronic toxicity (aquatic invertebrates):

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
adipic acid 124-04-9	NOEC	6,25 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

#### Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Glutaric acid 110-94-1	EC50	738 mg/l	72 h	Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Glutaric acid 110-94-1	NOEC	320 mg/l	72 h	Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
adipic acid 124-04-9	EC50	64,5 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
adipic acid 124-04-9	NOEC	40,6 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	NOEC	4,6 mg/l		Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	EC50	82 mg/l		Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

#### Toxicity (microorganisms):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
adipic acid 124-04-9	EC50	> 100 mg/l	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	EC 50	680 mg/l	3 h		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

#### 12.2. Persistence and degradability

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Glutaric acid 110-94-1	readily biodegradable	aerobic	73 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Glutaric acid 110-94-1	inherently biodegradable	aerobic	> 90 - 100 %	28 d	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
adipic acid 124-04-9	inherently biodegradable	aerobic	> 90 %	5 d	EU Method C.9 (Biodegradation: Zahn-Wellens Test)
adipic acid 124-04-9	readily biodegradable	aerobic	83 %	30 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3		aerobic	5 %		OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

#### 12.3. Bioaccumulative potential

No data available.

**12.4. Mobility in soil**

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	LogPow	Temperature	Method
Glutaric acid 110-94-1	-0,29		QSAR (Quantitative Structure Activity Relationship)
adipic acid 124-04-9	0,093	25 °C	other guideline:
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	2,8	22 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	PBT / vPvB
Glutaric acid 110-94-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
adipic acid 124-04-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
2,4,7,9-Tetramethyldec-5-yne-4,7-diol 126-86-3	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

**12.6. Endocrine disrupting properties**

not applicable

**12.7. Other adverse effects**

No data available.

## SECTION 13: Disposal considerations

**13.1. Waste treatment methods**

Product disposal:

Do not empty into drains / surface water / ground water.

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code

08 04 09\* waste adhesives and sealants containing organic solvents and other dangerous substances

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

## SECTION 14: Transport information

- 14.1. UN number or ID number**  
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.2. UN proper shipping name**  
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.3. Transport hazard class(es)**  
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.4. Packing group**  
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.5. Environmental hazards**  
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.6. Special precautions for user**  
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009):	Not applicable
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):	Not applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable
VOC content (2010/75/EC)	< 1 %

### 15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

### National regulations/information (Great Britain):

Remarks	<p>The Health &amp; Safety at Work Act 1974.</p> <p>The Control of Substances Hazardous to Health Regulations. L5:General Approved Code of Practice to the COSHH Regulations. HS(G)97:A Step by Step Guide to the COSHH Regulations. HS(G)193: COSHH essentials: Easy steps to control chemicals.</p> <p>IND (G)248L:Solder fume and you. IND(G)249L:Controlling health risks from rosin (colophony) based solder fluxes.</p> <p>The Control of Lead at Work Regulations. L132:Control of Lead at Work: Approved Code of Practice and Guidance.</p> <p>Employees should be under medical surveillance if the risk assessment made under the Control of Lead at Work Regulations indicates they are likely to be exposed to significant concentrations of lead, or if an Employment Medical Advisor or appointed doctor so certifies.</p> <p>A woman employed on work which exposes her to lead should notify her employer as soon as possible if she becomes pregnant. The Employment Medical Advisor / Appointed Doctor should be informed of the pregnancy.</p> <p>Under the Management of Health and Safety at Work Regulations, employers are required to assess the particular risks to health at work of pregnant workers and workers who have recently given birth or who are breast feeding.</p>
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**SECTION 16: Other information**

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H412 Harmful to aquatic life with long lasting effects.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

**Further information:**

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