


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

- 1.1 Product identifier**  
**Product name:** Reslin activator  
**Product code** N.A.  
**CAS-No.** N.A.  
**EC-No.** N.A.  
**Chemical Name** Mixture of aliphatic organic acids and aliphatic organic esters
- 1.2 Relevant identified uses of the substance and uses advised against**  
**Identified use** Hardener to crosslink epoxidized vegetable oils and other thermosetting resins.  
**Use advised against** None known.
- 1.3 Details of the supplier of the safety data sheet**  
**Manufacturer** Unicraft BV  
**Address** Daalstraat 35/1  
B-3832 Ulbeek  
Belgium  
**Telephone number** +32 12 225 226  
**E-mail address** info@unicraft.be
- 1.4 Emergency telephone numbers**  
+32 12 225 226 (Unicraft BV)  
info@unicraft.be

**SECTION 2: Hazards identification**

- 2.1 Classification of the substance or mixture**  
**According to Regulation (EC) No. 1272/2008**  
Serious eye damage Eye Dam. 1, H318
- 2.2 Label elements**  
**According to Regulation (EC) No. 1272/2008 (EU-GHS / CLP)**  
**Hazard pictograms**  
  
**Signal word** Danger  
**Hazard statements**  
H318 Causes serious eye damage.  
**Precautionary statements**  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection.  
P310 Immediately call a POISON CENTER/doctor.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
- Dangerous substances that contributes to the classification of the mixture:
- 2.3. Other Hazards**  
No information available.

**SECTION 3. Composition/information on ingredients**

- 3.1 Substance**  
Not applicable

**Reslin activator****3.2 Mixtures**

Hazardous ingredient Reach registration number	CAS No EC No	Conc. (in %)	Classification according to Regulation (EC) 1278/2008 (CLP)
Citric acid 01-2119457026-42-xxxx	77-92-9	>10%	H319, Eye Irrit. 2
Tartaric acid 01-2119537204-47-xxxx	87-69-4	>10%	H318, Eye Dam. 1

**SECTION 4: First aid measures****4.1 Description of first aid measures**

<b>General</b>	Show this safety data sheet to the doctor in attendance. Immediate medical attention is not required.
<b>Inhalation</b>	Fresh air, rest, half upright position . Get medical advice / attention if you feel unwell.
<b>Skin contact</b>	Remove contaminated clothes, rinse skin with water or shower. Get medical attention if skin irritation or skin rash occurs.
<b>Eye contact</b>	First rinse with plenty of water (remove lenses if possible) for at least 15min. If eye irritation persists: Get medical advice / attention.
<b>Ingestion</b>	Do NOT induce vomiting. If person is conscious, rinse out mouth with water. Immediately call a doctor/physician.

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

Respiratory irritation and eye damage.

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

Not applicable.

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

Alcohol-resistant foam, water spray, powder, carbon dioxide.

**Unsuitable extinguishing media**

Water jet

**5.2 Special hazards arising from the substance or mixture****Hazardous combustion products**

In case of fire toxic gases are formed (carbon monoxide and/or carbon dioxide).

**Additional hazards**

None

**5.3 Advice for firefighters**

Wear self-contained breathing apparatus for fire-fighting if necessary  
Use water spray to cool unopened containers. Prevent fire extinguishing water from contaminating surface water or the ground water system.  
Cool closed containers exposed to fire with water spray

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

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

**6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains  
Do not discharge into sewer, surface water or soil.

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

- Small spills : Absorb spilled liquid with inert absorbent. Collect and seal in an appropriate container properly labelled for disposal.

Large spills : Stop spill if it can be done without danger. Dike. Pump as much liquid as possible with an explosion-proof pump or a hand pump. Absorb the remaining liquid with inert absorbent. Collect and seal in an appropriate container properly labelled for disposal.

### 6.4 Reference to other sections

See also the sections 8 and 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Recommendations for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking.

#### Advice on general occupational hygiene

Do not eat, drink and smoke in work areas. Wash hands thoroughly with water and soap.

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

#### Protection against incompatible substances

Keep away from strong oxidants.

#### Protection against ambient influences

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep away from heat and direct sunlight and sources of ignition.

### 7.3 Specific end use(s)

No further information available..

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace : None

#### PNEC (citric acid )

##### Aquatic

- <i>fresh water</i>	PNEC aquatic (fresh water)	0,32 mg/l
- <i>marine water</i>	PNEC aquatic (marine water)	0,032 mg/l
- <i>intermittent release</i>	PNEC aquatic (intermittent release)	3,2 mg/l

##### STP

##### - Sedimentary

<i>sediment fresh water</i>	PNEC sediment	1,66 mg/kg sediment dw
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<i>sediment marine water</i>	PNEC marine sediment	0,166 mg/kg sediment dw
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- <i>Terrestrial soil</i>	PNEC soil	0,145 mg/kg dw
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#### PNEC (tartaric acid )

- <i>Aquatic</i>	PNEC aquatic (fresh water)	0,44 mg/l
- <i>fresh water</i>	PNEC aquatic (marine water)	0,044 mg/l
- <i>marine water</i>	PNEC aquatic (intermittent release)	4,4 mg/l
- <i>intermittent release</i>		10 mg/l

##### STP

##### - Sedimentary

<i>sediment fresh water</i>	PNEC sediment	34,6 mg/kg sediment dw
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*sediment marine water* PNEC marine sediment 3,46 mg/kg sediment dw

– **Terrestrial** PNEC soil 33,1 mg/kg dw  
*soil*

**8.2 Exposure controls****8.2.1 Appropriate engineering controls**

Assure a good ventilation

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

Safety goggles (EN 166) or face shield

**b) Skin protection****Hand protection**

Gloves butyl rubber 0,3 mm

Breakthrough time > 8 hours (EN374)

Splash contact: Gloves nitril rubber  
0,2mm

Breakthrough time > 8 hours (EN 374)

**Other**

Protective clothing (EN 340/EN 14605).

**c) Respiratory protection**

In case of insufficient local exhaust: filter respirator for organic vapours (filter type A).(EN 14387)

**d) Thermal hazards**

Not applicable.

**8.2.3 Environmental exposure controls**

Direct polluted air of the local exhaust ventilation out of the plant in a manner in accordance with environmental regulations.

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

Appearance (at 20°C):	Viscous liquid
Odour:	Slight ester odour
Colour:	Slightly yellow
Odour threshold	Not determined
pH value	Not determined
Melting/Freezing point (°C)	Not determined
Boiling point (°C)	Not determined
Flashpoint (°C) (closed cup)	>100°C
Evaporation rate	Not determined
Flammability (solid/gas)	Not applicable
Explosion limits (Vol%)	Not determined
Vapour pressure (at 20°C) (hPa)	Not determined
-Relative density (at 20°C)	Not determined
Water solubility	Not determined
Soluble in	Not determined.
Partition coefficient n-octanol/water	Not determined
Auto-ignition temperature (°C)	Not determined
Decomposition Temperature (°C)	Not determined
Viscosity(at 20°C) (mPa.s)	Not determined
Explosive properties	Not determined.
Oxidising Properties	Not determined

**9.2 Other information**

No other information available

**Reslin activator****SECTION 10: Stability and Reactivity**

- 10.1 Reactivity**  
Not reactive.
- 10.2 Chemical stability**  
Stable under normal conditions
- 10.3 Possibility of hazardous reactions**  
No data available
- 10.4 Conditions to avoid**  
Heat, flames, sparks.
- 10.5 Incompatible materials**  
Strong oxidizing agents.
- 10.6 Hazardous decomposition products**  
Carbon oxides.

**SECTION 11: Toxicological information**

Mixture: No toxicological information available

**11.1 Information on toxicological effects of Citric acid 77-92-9**

- 11.1.1 Acute toxicity**
- |  |                   |
|--|-------------------|
| LD50 (oral, mouse) (mg/kg)             | 5400mg/kg         |
| LD50 (dermal, rabbit) (mg/kg)          | No data available |
| LC50 (inhalation, rat, 4 hours) (mg/l) | No data available |
- 11.1.2 Skin corrosion/irritation** No adverse effect observed (not irritating)
- 11.1.3 Serious eye damage/irritation** No adverse effect observed (not irritating)
- 11.1.4 Respiratory or skin sensitization** Not sensitizing
- 11.1.5 Germ cell mutagenicity** Not classified
- 11.1.6 Carcinogenicity** There is no evidence from long term human exposure to citric acid that it is a carcinogen.
- 11.1.7 Reproductive toxicity** Not classified. .
- 11.1.8 STOT- single exposure** Not classified
- 11.1.9 STOT- repeated exposure** Not classified
- 11.1.10 Aspiration hazard** Not classified

**11.2 Information on toxicological effects of Tartaric acid 87-69-4**

- 11.2.1 Acute toxicity**
- |  |                   |
|--|-------------------|
| LD50 (oral, rat) (mg/kg)               | >2000mg/kg        |
| LD50 (dermal, rat) (mg/kg)             | >2000mg/kg        |
| LC50 (inhalation, rat, 4 hours) (mg/l) | No data available |
- 11.2.2 Skin corrosion/irritation** No adverse effect observed (not irritating)
- 11.2.3 Serious eye damage/irritation** Causes serious eye damage
- 11.2.4 Respiratory or skin sensitization** Not tested
- 11.2.5 Germ cell mutagenicity** Negative
- 11.2.6 Carcinogenicity** Not tested
- 11.2.7 Reproductive toxicity** Not classified. .
- 11.2.8 STOT- single exposure** Not classified
- 11.2.9 STOT- repeated exposure** Not classified
- 11.2.10 Aspiration hazard** Not classified

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### SECTION 12: Ecological information

12.1	<b>Toxicity:</b>	
	<b>Mixture</b>	
	LC50 (fish, 96 hours) (mg/l)	No data available
	EC50 (Daphnia, 48 hours) (mg/l)	No data available
	IC50 (algae, 96 hours) (mg/l)	No data available

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

**Mixture:****Product disposal**

Remove to an authorised waste incinerator in compliance with local regulations. Do not discharge into surface water.

**Packaging disposal**

Uncleaned empty packaging have to be treated like the content. The labelling of uncleaned containers must not be removed.

### SECTION 14: Transport information

14.1	<b>UN Number</b>	Not classified as dangerous good under transport regulations
14.2	<b>UN proper shipping name</b>	Not classified as dangerous good under transport regulations.
14.3	<b>Transport hazard class(es)/code</b>	Not classified as dangerous good under transport regulations.
14.4	<b>Packing group</b>	Not classified as dangerous good under transport regulations.
14.5	<b>Environmental hazards</b>	Not applicable.
14.6	<b>Specials precautions for user</b>	Not applicable.
14.7	<b>Transport in bulk according to Annex II of MARPOL and the IBC Code:</b>	Not applicable

### SECTION 15: Regulatory information

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

**Applicable European Regulations:**

Regulation (EC) 1907/2006 on the Registration, Evaluation, Authorisation and Restriction of Chemicals and amendments.

Regulation (EC) 1272/2008 on classification, labelling and packaging of substances and mixtures and amendments.

Refer to the relevant EU/national regulation for details of any actions or restrictions required by the above Regulation(s).

#### 15.2 Chemical safety assessment

Not available.

### SECTION 16: Other information

#### 16.1 Changes to the previous version:

None

► Indicates changes in content from previously issued version.

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Version: 001

Date of previous version: 18/02/2020

#### 16.2 Relevant hazard statements not written out in full in section 2-15

H319: Causes serious eye irritation.

All chemicals may pose unknown hazards and should be used/handled with cautions. The above information is believed to be correct based on the present state of our knowledge but does not purport to be all inclusive and shall be used only as a guide. The information in this document is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

Unicraft BV shall not be held liable for any damage resulting from handling or from contact with the above product.