

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

**Name of product** GMK 2510 Hardener  
Code-Nr. 162010

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Recommended intended purpose(s)**

Hardener

**1.3. Details of the supplier of the safety data sheet****Distributor**

WEICON GmbH & Co. KG  
Königsberger Str. 255, DE-48157 Münster  
Phone : +49(0)251 / 9322 - 0, Fax : +49(0)251 / 9322 - 244  
E-Mail : msds@weicon.de  
Internet : www.weicon.de

**Advice**

Produktsicherheit / Product-Safety-Department  
Phone : +49(0)251 / 9322 - 0  
Fax : +49(0)251 / 9322 - 244  
E-mail (competent person):  
msds@weicon.de

**1.4. Emergency telephone number**

EMERGENCY CONTACT - UK, UAE, South Africa (24h): Tel:  
++44 1865 407333 (English)  
TRANSPORT EMERGENCY CONTACT - UK, UAE, South  
Africa (24h): Tel: ++44 1865 407333 (English)

**Manufacturer**

WEICON GmbH & Co. KG  
Königsberger Str. 255, DE-48157 Münster

**1.4. Emergency telephone number**

GIFTNOTRUF/TRANSPORTNOTRUF - Deutschland (24h):  
Tel: ++49 69 222 25285 (Deutsch, Englisch)

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]**

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
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Flam. Liq. 2	H225	
Eye Irrit. 2	H319	
STOT SE 3	H336	

**Hazard Statements**

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

## 2.2. Label elements

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



GHS02



GHS07

### Signal word

Danger

### Hazard Statements

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

### Precautionary Statements

P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing vapours/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/eye protection.
P285	In case of inadequate ventilation wear respiratory protection.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor/if you feel unwell.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing.
P370 + P378	In case of fire: Use water for extinction.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container to hazardous or special waste collection point.

### Hazardous ingredients for labeling

ethyl-acetate

### Supplemental Hazard information (EU)

Repeated exposure may cause skin dryness or cracking.

### Special rules for supplemental label elements for certain mixtures

Contains isocyanates. May produce an allergic reaction.

### Additional information

#### Remark

For industrial use only.

**2.3. Other hazards****Results of PBT and vPvB assessment**

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

**SECTION 3: Composition/ information on ingredients****3.1. Substances**

not applicable

**3.2. Mixtures****Hazardous ingredients**

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
141-78-6	205-500-4	ethyl-acetate	70 < 75	Flam. Liq. 2, H225 / Eye Irrit. 2, H319 / STOT SE 3, H336
108-90-7	203-628-5	chlorobenzene	< 1	Flam. Liq. 3, H226 / Skin Irrit. 2, H315 / Acute Tox. 4, H332 / Aquatic Chronic 2, H411
4151-51-3	223-981-9	Tris(p-isocyanatophenyl) thiophosphate	25 < 30	Acute Tox. 4, H302

**REACH**

CAS No	Name	REACH registration number
141-78-6	ethyl-acetate	01-2119475103-46
108-90-7	chlorobenzene	01-2119432722-63
4151-51-3	Tris(p-isocyanatophenyl) thiophosphate	01-2119948848-16

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

Remove moisted clothing immediately.

Take affected person into fresh air.

**In case of inhalation**

Ensure of fresh air.

In the event of symptoms refer for medical treatment.

**In case of skin contact**

In case of contact with skin wash off with soap and water.

Consult a doctor if skin irritation persists.

**In case of eye contact**

In case of contact with eyes rinsing with plenty of lukewarm water carefully and seek for medical treatment.

**In case of ingestion**

Do not induce vomiting.

Call for a doctor immediately.

**4.2. Most important symptoms and effects, both acute and delayed****Physician's information / possible symptoms**

Respiratory complaints

skin irritation

**Physician's information / possible dangers**

allergic reactions

**4.3. Indication of any immediate medical attention and special treatment needed****Treatment (Advice to doctor)**

Keep under medical supervision for at least 48 hours.

Symptoms may not occur until several hours.

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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Foam

ABC powder

Carbon dioxide

sand

#### Unsuitable extinguishing media

Full water jet

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

In case of fire formation of dangerous gases possible.

Nitrogen oxides (NO<sub>x</sub>)

Carbon monoxide (CO)

Carbon dioxide (CO<sub>2</sub>)

Hydrogen cyanide (HCN)

### 5.3. Advice for firefighters

#### Special protective equipment for fire-fighters

Use breathing apparatus with independent air supply ( isolated ).

Fire-fighting operations, rescue and clearing work under effect of combustion and smoulder gases just may be done with breathing apparatus.

Do not inhale explosion and/or combustion gases.

#### Additional information

Vapours are heavier than air and will spread on the ground.

Cool endangered containers with water spray jet.

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

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## SECTION 6: Accidental release measures

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

#### For non-emergency personnel

Ensure adequate ventilation.

Use personal protective clothing.

Keep away sources of ignition.

Use breathing apparatus if exposed to vapours/dust/aerosol.

### 6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

Do not discharge into the subsoil/soil.

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

Protect from water.

After approx. 1 hour, transfer to suitable drum containers. Do not close these (likelihood of CO<sub>2</sub> production). Keep damp in the open air in a safe place for several days.

Ventilate area concerned

Take up with absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).

After taking up the material dispose according to regulation.

### 6.4. Reference to other sections

Safe handling: see section 7

Disposal: see section 13

Personal protection equipment: see section 8



## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.  
Provide good room ventilation even at ground level (vapours are heavier than air).  
Take the usual precautions when handling with chemicals.

#### General protective measures

Avoid contact with eyes and skin  
Do not inhale gases/vapours/aerosols.  
Do not inhale dust.  
Ensure sufficient ventilation.

#### Hygiene measures

At work do not eat, drink and smoke.  
Work in rooms with good ventilation.  
Keep separated from food and feed.  
Wash hands before breaks and after work.

#### Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking  
Protect from heat and sunlight.  
Vapours can form an explosive mixture with air.  
Take precautionary measures against static discharges.

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

#### Requirements for storage rooms and vessels

Keep only in original container.

#### Advice on storage compatibility

Do not store with oxidizing agents.  
Do not store together with animal feedstuffs.  
Do not store together with food.  
Keep away from water.

#### Further information on storage conditions

Store at +5 till +25 °C.  
Keep container tightly closed and store at cool and aired place.  
Protect from heat and direct solar radiation.  
Store in a dry place.

### 7.3. Specific end use(s)

#### Recommendation(s) for intended use

See section 1.2

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Ingredients with occupational exposure limits to be monitored

CAS No	Name	Code	[mg/m <sup>3</sup> ]	[ppm]	Remark
141-78-6	Ethyl acetate	8 hours Short-term		200 400	EH40/2005
141-78-6	Ethylacetat (CH)	MAK, 8 hours Short-term	2800 1400	800 400	OAW, Auge, Methode: INRS, NIOSH



# Safety Data Sheet according to Regulation (EC)

No. 1907/2006 (REACH)

Printed 05.08.2019

revision 05.11.2018 (GB) Version 1.0

## GMK 2510 Hardener

### DNEL-/PNEC-values

#### DNEL worker

CAS No	Substance name	Value	Code	Remark
141-78-6	ethyl-acetate	1468 mg/m <sup>3</sup>	DNEL acute inhalative (local)	
		1468 mg/m <sup>3</sup>	DNEL acute inhalative (systemic)	
		734 mg/m <sup>3</sup>	DNEL long-term inhalative (local)	
		63 mg/kg	DNEL long-term dermal (systemic)	

#### PNEC

CAS No	Substance name	Value	Code	Remark
141-78-6	ethyl-acetate	0,24 mg/l	PNEC aquatic, freshwater	
		0,34 mg/kg	PNEC sediment, freshwater	
		0,115 mg/kg	PNEC sediment, marine water	
		0,024 mg/l	PNEC aquatic, marine water	

#### Additional advice

The statutory local and national regulations have to be observed.

### 8.2. Exposure controls

#### Respiratory protection

In case of insufficient ventilation or long-term effect use breathing apparatus.

Breathing apparatus in the event of aerosol or mist formation.

Short-term: filter apparatus, filter A2/P2, otherwise environment-independent breathing apparatus.

#### Hand protection

In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.

In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.

Glove material specification [make/type, thickness, permeation time/life, wetting resistance]: butyl rubber, 0,7mm; 480min

#### Eye protection

tightly fitting goggles

#### Other protection measures

protective clothing

#### Appropriate engineering controls

Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.

## SECTION 9: Physical and chemical properties

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

#### Appearance

liquid

#### Colour

yellowy-brown

#### Odour

fruity

#### Odour threshold

No data available

### Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	not determined				



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**GMK 2510 Hardener**

	Value	Temperature	at	Method	Remark
<b>Acid number</b>	Not required				
<b>boiling point</b>	ca. 77 °C				
<b>melting point</b>	not determined				
<b>Flash point</b>	ca. -4 °C			DIN 51755	
<b>Vapourisation rate</b>	No data available				
<b>Flammable (solid)</b>	not applicable				
<b>Flammability (gas)</b>	not applicable				
<b>Ignition temperature</b>	ca. 460 °C				
<b>Self ignition temperature</b>	not determined				
<b>Lower explosion limit</b>	2,2 Vol-%				
<b>Upper explosion limit</b>	11,5 Vol-%				
<b>Vapour pressure</b>	ca. 97 hPa	20 °C			
<b>Relative density</b>	ca. 1 g/cm <sup>3</sup>	20 °C		DIN 53217	
<b>Bulk density</b>	No data available				
<b>Vapour density</b>	No data available				
<b>Solubility in water</b>					Reacts with water
<b>Solubility/other</b>	not determined				
<b>Partition coefficient n-octanol/water (log P O/W)</b>	not determined				
<b>Decomposition temperature</b>	not determined				
<b>Viscosity dynamic</b>	ca. 3 mPa*s	20 °C		DIN 53015	
<b>Viscosity kinematic</b>	not determined				
<b>Oxidising properties</b>	No data available				
<b>Explosive properties</b>	The product is considered non-explosive ; nevertheless explosive vapour/air mixtures can be generated .				
<b>9.2. Other information</b>	No information available.				

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No information available.

### 10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3. Possibility of hazardous reactions

Exothermic reaction with alcohols and amines.

Danger of bursting container.

Reactions with oxidising agents.

Reactions with water.

### 10.4. Conditions to avoid

After contact with water:

In case of temperature increase (heating): explosion risk.

Carbon dioxide (CO<sub>2</sub>)

Keep away from heat.

### 10.5. Incompatible materials

#### Substances to avoid

Alcohols

Amines

Oxidising agent

Water

### 10.6. Hazardous decomposition products

Hydrogen cyanide (hydrocyanic acid)

Gases / vapours, highly flammable

Nitrous gases

Carbon monoxide

Carbon dioxide

### Thermal decomposition

Remark No decomposition if used as directed.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity/Irritation/Sensitization

	Value/Validation	Species	Method	Remark
<b>LD50 acute oral</b>	> 2500 mg/kg			CAS: 4151-51-3
<b>LD50 acute dermal</b>	18000 mg/kg	rabbit		CAS: 141-78-6
<b>LC50 acute inhalation</b>	1,5 mg/l (4 h)		dust/mist	CAS: 108-90-7
<b>Skin irritation</b>	low irritant effect - not necessary to label			
<b>Eye irritation</b>	irritant			



**Subacute Toxicity - Carcinogenicity**

Value	Species	Method	Validation
<b>Mutagenicity</b>			No experimental in-vitro information available.
<b>Reproduction-Toxicity</b>			No indications of toxic effects were observed in reproduction studies in animals.
<b>Carcinogenicity</b>			No indications of carcinogenic effects are available from long-term trials.

**Specific target organ toxicity (single exposure)**

May cause drowsiness or dizziness.

**Experiences made from practice**

Sensitization through skin contact possible.

May cause drowsiness or dizziness.

Irritates eyes and skin.

**Additional information**

The product is to be handled with the caution usual with chemicals.

Other hazardous properties may not be excluded.

The product has not been tested. The information is derived from the properties of the individual components.

**SECTION 12: Ecological information****12.1. Toxicity****Ecotoxicological effects**

Value	Species	Method	Validation
<b>Fish</b> LC50 230 mg/l (96 h)	Pimephales promelas		CAS: 141-78-6
<b>Daphnia</b> EC50 717 mg/l (48 h)	Daphnia magna		CAS: 141-78-6
<b>Algae</b> ErC50 12,5 mg/l (96 h)	Selenastrum capricornutum		CAS: 108-90-7

**12.2. Persistence and degradability**

Elimination rate	Method of analysis	Method	Validation
<b>Biological degradability</b> 58,2 % (28 d) CAS: 4151-51-3			not readily degradable
<b>Degradability</b> 79 % (20 d) CAS: 141-78-6		OECD 301 D	Moderately/partially biodegradable

**12.3. Bioaccumulative potential**

No information available.

**12.4. Mobility in soil**

No information available.

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

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

**12.6. Other adverse effects****General regulation**

Do not allow uncontrolled leakage of product into the environment.

Product is not allowed to be discharged into aquatic environment, drains or sewage treatment plants.

The ecotoxic effect of the product has not been tested. The information on this is given on the basis of details in the literature.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Waste code No.**

08 04 09\*

**Name of waste**

waste adhesives and sealants containing organic solvents or other hazardous substances

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 2008/98/EC on hazardous waste.

**Recommendations for the product**

Remove in accordance with local official regulations.

Dispose of as hazardous waste.

**Recommendations for packaging**

Dispose of according to the local waste regulations.

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Packaging that cannot be cleaned should be disposed of like the product.

**General information**

Assignment to a waste code number / waste identification according to the EWC is to be carried out on a sector or process-specific basis.

**SECTION 14: Transport information**

	<b>ADR/RID</b>	<b>IMDG</b>	<b>IATA-DGR</b>
<b>14.1. UN number</b>	1173	1173	1173
<b>14.2. UN proper shipping name</b>	ETHYL ACETATE (ethyl-acetate)	ETHYL ACETATE (ethyl-acetate)	Ethyl acetate (ethyl-acetate)
<b>14.3. Transport hazard class(es)</b>	3	3	3
<b>14.4. Packing group</b>	II	II	II
<b>14.5. Environmental hazards</b>	No	No	No

**14.6. Special precautions for user**

No information available.

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

not applicable

**Land and inland navigation transport ADR/RID**

Hazard label(s) 3

tunnel restriction code D/E

Special provisions 640D

Classification code F1

**Transport/further information**

Marine pollutant: NO



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## SECTION 15: Regulatory information

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

#### VOC standard

VOC content 72 %

VOC value ca. g/L

### 15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

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## SECTION 16: Other information

### Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

For industrial use only.

### Further information

Each user is responsible for the implementation of the national special regulations.

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Please observe the following disclaimer! --- Our safety data sheets have been compiled according to effective EU-directives, WITHOUT taking into account the special national directives concerning the handling of hazardous substances.

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.