

## KMK 4901 NORMAL HARDENER

Version  
2.0

Revision Date:  
19.02.2018

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

#### 1.1 Product identifier

Trade name : KMK 4901 NORMAL HARDENER

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

Use of the Substance/Mixture : Curing chemical

Recommended restrictions on use : For use in industrial installations or professional treatment only.

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

Company : Kimakem srl  
Via Don G. Fortuna 82  
36050 Monteviale-Vicenza  
Italia

Telephone : +34 915726606

E-mail address of person responsible for the SDS : info@kimakem.com

#### 1.4 Emergency telephone number

+34 915726606 (9:00-14:00 / 16:00-19:00 h) KIMAKEM IBERICA (España) (GMT +1:00)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3 H226: Flammable liquid and vapour.

Skin irritation, Category 2 H315: Causes skin irritation.

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.

Specific target organ toxicity - single exposure, Category 3, Central nervous system H336: May cause drowsiness or dizziness.

Specific target organ toxicity - single exposure, Category 3, Respiratory system H335: May cause respiratory irritation.

## KMK 4901 NORMAL HARDENER

Version  
2.0

Revision Date:  
19.02.2018

Chronic aquatic toxicity, Category 3

H412: Harmful to aquatic life with long lasting effects.

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness.  
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements :

#### Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P260 Do not breathe vapours.  
P260 Do not breathe spray.

#### Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

#### Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

HDI oligomers, isocyanurate  
n-butyl acetate  
Solvent naphtha (petroleum), light arom.  
hexamethylene-di-isocyanate

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## KMK 4901 NORMAL HARDENER

Version  
2.0

Revision Date:  
19.02.2018

### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

Chemical nature : Paint

#### Hazardous components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
HDI oligomers, isocyanurate	28182-81-2 500-060-2 01-2119485796-17	Acute Tox. 4; H332 Skin Sens. 1; H317 STOT SE 3; H335	>= 30 - < 50
n-butyl acetate	123-86-4 204-658-1 607-025-00-1 01-2119485493-29	Flam. Liq. 3; H226 STOT SE 3; H336 EUH066	>= 20 - < 30
Solvent naphtha (petroleum), light arom.	64742-95-6 265-199-0 649-356-00-4	Flam. Liq. 3; H226 STOT SE 3; H335 STOT SE 3; H336 Asp. Tox. 1; H304 Aquatic Chronic 2; H411	>= 2,5 - < 10
hexamethylene-di-isocyanate	822-06-0 212-485-8 615-011-00-1 01-2119457571-37	Acute Tox. 4; H302 Acute Tox. 1; H330 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 STOT SE 3; H335	>= 0,1 - < 0,5
Substances with a workplace exposure limit :			
2-methoxy-1-methylethyl acetate	108-65-6 203-603-9 607-195-00-7 01-2119475791-29	Flam. Liq. 3; H226 STOT SE 3; H336	>= 20 - < 30

For explanation of abbreviations see section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : Consult a physician after significant exposure.  
If unconscious, place in recovery position and seek medical advice.

## **KMK 4901 NORMAL HARDENER**

Version  
2.0

Revision Date:  
19.02.2018

- 
- In case of skin contact : If skin irritation persists, call a physician.  
If on skin, rinse well with water.  
If on clothes, remove clothes.
- In case of eye contact : Flush eyes with water as a precaution.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.

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

- Symptoms : Inhalation may provoke the following symptoms:  
Headache  
Vertigo  
Fatigue  
Skin contact may provoke the following symptoms:  
Redness  
Ingestion may provoke the following symptoms:  
Abdominal pain  
Vomiting  
Diarrhoea

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

- Treatment : In case of ingestion, the stomach should be emptied by gastric lavage under qualified medical supervision.

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

- Suitable extinguishing media : Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical
- Unsuitable extinguishing media : High volume water jet

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

- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : No hazardous combustion products are known

## KMK 4901 NORMAL HARDENER

Version  
2.0

Revision Date:  
19.02.2018

---

### 5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.  
For safety reasons in case of fire, cans should be stored separately in closed containments.  
Use a water spray to cool fully closed containers.

## SECTION 6: Accidental release measures

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

Personal precautions : Use personal protective equipment.  
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.

### 6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.

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

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

### 6.4 Reference to other sections

For contact information in case of emergency, see section 1. For information on safe handling, see section 7. For exposure controls and personal protection measures, see section 8. For subsequent waste disposal, follow the recommendations in section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Avoid formation of aerosol.  
Do not breathe vapours/dust.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.

**KMK 4901 NORMAL HARDENER**

Version  
2.0

Revision Date:  
19.02.2018

For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Take precautionary measures against static discharges.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Open drum carefully as content may be under pressure.  
Dispose of rinse water in accordance with local and national regulations.  
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

- Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from open flames, hot surfaces and sources of ignition.
- Hygiene measures : When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

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

- Requirements for storage areas and containers : No smoking. 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. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
- Further information on storage conditions : <\*\* Phrase language not available: [ EN ] CUST - Z99.00000000038 \*\*>
- Storage period : 12 Months
- Further information on storage stability : No decomposition if stored and applied as directed.

**7.3 Specific end use(s)**

- Specific use(s) : For the use of this product do not exist particular recommendations apart from that already indicated.

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

**Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis

**KMK 4901 NORMAL HARDENER**

 Version  
2.0

 Revision Date:  
19.02.2018

n-butyl acetate	123-86-4	VLA-ED	150 ppm 724 mg/m <sup>3</sup>	ES VLA
		VLA-EC	200 ppm 965 mg/m <sup>3</sup>	ES VLA
2-methoxy-1-methylethyl acetate	108-65-6	TWA	50 ppm 275 mg/m <sup>3</sup>	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	100 ppm 550 mg/m <sup>3</sup>	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		VLA-EC	100 ppm 550 mg/m <sup>3</sup>	ES VLA
Further information	Skin, Chemical agent with an indicative limit value established by the EU. All these chemicals are contained in at least one of the directives of indicative limit values published so far (see Appendix C. Bibliography). Member states shall transpose the limits set in the Directives within a certain time frame. Once adopted, these values have the same validity as the rest of the values adopted by the country.			
		VLA-ED	50 ppm 275 mg/m <sup>3</sup>	ES VLA
Further information	Skin, Chemical agent with an indicative limit value established by the EU. All these chemicals are contained in at least one of the directives of indicative limit values published so far (see Appendix C. Bibliography). Member states shall transpose the limits set in the Directives within a certain time frame. Once adopted, these values have the same validity as the rest of the values adopted by the country.			
hexamethylene-di-isocyanate	822-06-0	VLA-ED	0,005 ppm 0,035 mg/m <sup>3</sup>	ES VLA
Further information	Sensitizer agent			

**Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:**

Substance name	End Use	Exposure routes	Potential health effects	Value
n-butyl acetate	Workers	Inhalation	Long-term systemic effects	480 mg/m <sup>3</sup>
2-methoxy-1-methylethyl acetate	Workers	Inhalation	Long-term systemic effects	275 mg/m <sup>3</sup>
Low boiling point naphtha - unspecified	Workers	Inhalation	Long-term systemic effects	608 mg/m <sup>3</sup>
hexamethylene-di-isocyanate	Workers	Inhalation	Long-term local effects	0,035 mg/m <sup>3</sup>

**8.2 Exposure controls**
**Personal protective equipment**

 Eye protection : Eye wash bottle with pure water  
Tightly fitting safety goggles

## KMK 4901 NORMAL HARDENER

Version  
2.0

Revision Date:  
19.02.2018

---

Hand protection	:	
Material	:	Solvent-resistant gloves
Skin and body protection	:	Impervious clothing
	:	Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Respiratory protection	:	In the case of vapour formation use a respirator with an approved filter.

### SECTION 9: Physical and chemical properties

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

Appearance	:	liquid
Colour	:	colourless
Odour	:	characteristic
Melting point/range	:	not determined
Boiling point/boiling range	:	not determined
Flash point	:	32 °C
	:	Method: ISO 1523, closed cup Setaflash
Upper explosion limit / Upper flammability limit	:	not determined
Lower explosion limit / Lower flammability limit	:	not determined
Vapour pressure	:	not determined
Density	:	1,03 g/cm <sup>3</sup> (20 °C)
	:	Method: ISO 2811-1
Solubility(ies)	:	
Water solubility	:	immiscible
Viscosity	:	
Viscosity, dynamic	:	30 mPa.s (20 °C)
	:	Method: ISO 2555
Viscosity, kinematic	:	> 20,5 mm <sup>2</sup> /s (40 °C)

#### 9.2 Other information

No data available



## KMK 4901 NORMAL HARDENER

Version  
2.0

Revision Date:  
19.02.2018

---

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

No decomposition if stored and applied as directed.

#### 10.2 Chemical stability

No decomposition if stored and applied as directed.

#### 10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.  
Vapours may form explosive mixture with air.

#### 10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

#### 10.5 Incompatible materials

Materials to avoid : No data available

#### 10.6 Hazardous decomposition products

No data available

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Acute toxicity

##### Product:

Acute inhalation toxicity : Acute toxicity estimate: > 10 - 20 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: Calculation method

Acute toxicity estimate: > 20 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: Calculation method

##### Components:

##### HDI oligomers, isocyanurate:

Acute oral toxicity : LD50 Oral (Rat): > 2.000 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 0,543 mg/l

---

## KMK 4901 NORMAL HARDENER

Version  
2.0

Revision Date:  
19.02.2018

---

Exposure time: 4 h  
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg  
Method: OECD Test Guideline 402

### **n-butyl acetate:**

Acute oral toxicity : LD50 Oral (Rat): 10.768 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 23,4 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 17.600 mg/kg  
Method: OECD Test Guideline 402

### **Solvent naphtha (petroleum), light arom.:**

Acute oral toxicity : LD50 Oral (Rat): 3.592 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 20 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): 3.160 mg/kg  
Method: OECD Test Guideline 402

### **hexamethylene-di-isocyanate:**

Acute oral toxicity : LD50 Oral (Rat): 738 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 0,31 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 593 mg/kg  
Method: OECD Test Guideline 402

### **2-methoxy-1-methylethyl acetate:**

Acute oral toxicity : LD50 Oral (Rat): 8.532 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 35,7 mg/l  
Exposure time: 4 h  
Test atmosphere: gas  
Method: OECD Test Guideline 403

---

## KMK 4901 NORMAL HARDENER

Version  
2.0

Revision Date:  
19.02.2018

---

Acute dermal toxicity : LD50 (Rat): 5.000 mg/kg  
Method: OECD Test Guideline 402

### Skin corrosion/irritation

**Product:**

Result: Skin irritation

### Serious eye damage/eye irritation

**Product:**

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

### Respiratory or skin sensitisation

**Product:**

Result: May cause sensitisation by skin contact.

### Germ cell mutagenicity

**Product:**

Germ cell mutagenicity-  
Assessment : Based on available data, the classification criteria are not met.

### Carcinogenicity

**Product:**

Carcinogenicity -  
Assessment : Based on available data, the classification criteria are not met.

### Reproductive toxicity

**Product:**

Reproductive toxicity -  
Assessment : Based on available data, the classification criteria are not met.

### STOT - single exposure

**Product:**

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation., The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

### STOT - repeated exposure

**Product:**

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

---

## KMK 4901 NORMAL HARDENER

Version  
2.0

Revision Date:  
19.02.2018

---

### Aspiration toxicity

**Product:**

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

### Further information

**Product:**

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

## SECTION 12: Ecological information

### 12.1 Toxicity

**Components:**

**HDI oligomers, isocyanurate:**

Toxicity to algae : EC50 (Algae): 370 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

**n-butyl acetate:**

Toxicity to fish : LC50 (Fish): 18 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia (water flea)): 32 mg/l  
aquatic invertebrates : Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 675 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

**Solvent naphtha (petroleum), light arom.:**

Toxicity to fish : LC50 (Fish): 9,2 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia (water flea)): 3,2 mg/l  
aquatic invertebrates : Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 2,9 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

---

## KMK 4901 NORMAL HARDENER

Version  
2.0

Revision Date:  
19.02.2018

---

### 2-methoxy-1-methylethyl acetate:

- Toxicity to fish : LC50 (Fish): 100 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 408 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202
- Toxicity to algae : EC50 (Algae): 1.000 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

#### Product:

- Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

### 12.6 Other adverse effects

#### Product:

- Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Harmful to aquatic life with long lasting effects.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

- Product : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.
- Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.

## KMK 4901 NORMAL HARDENER

Version  
2.0

Revision Date:  
19.02.2018

Do not burn, or use a cutting torch on, the empty drum.

### SECTION 14: Transport information

#### 14.1 UN number

**IMDG** : UN 1263  
**IATA (Cargo)** : UN 1263

#### 14.2 UN proper shipping name

**ADR** : PAINT RELATED MATERIAL  
**IMDG** : PAINT RELATED MATERIAL  
**IATA (Cargo)** : Paint related material

#### 14.3 Transport hazard class(es)

**ADR** : 3  
**IMDG** : 3  
**IATA (Cargo)** : 3

#### 14.4 Packing group

**ADR**  
Packing group : III  
Classification Code : F1  
Hazard Identification Number : 30  
Labels : 3  
**IMDG**  
Packing group : III  
Labels : 3  
EmS Code : F-E, S-E

**IATA (Cargo)**  
Packing instruction (cargo aircraft) : 366  
Packing instruction (LQ) : Y344  
Packing group : III  
Labels : Flammable Liquids

#### 14.5 Environmental hazards

**ADR**  
Environmentally hazardous : no

**IMDG**  
Marine pollutant : no

#### 14.6 Special precautions for user

Not applicable

## KMK 4901 NORMAL HARDENER

Version  
2.0

Revision Date:  
19.02.2018

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
P5c	FLAMMABLE LIQUIDS	5.000 t	50.000 t
34	Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d)	2.500 t	25.000 t

#### Other regulations:

The product is classified and labelled in accordance with EC directives or respective national laws.

### 15.2 Chemical safety assessment

The supplier has not carried out evaluation of chemical safety.

## SECTION 16: Other information

#### Full text of H-Statements

EUH066	: Repeated exposure may cause skin dryness or cracking.
H226	: Flammable liquid and vapour.
H302	: Harmful if swallowed.
H304	: May be fatal if swallowed and enters airways.
H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.
H319	: Causes serious eye irritation.
H330	: Fatal if inhaled.
H332	: Harmful if inhaled.
H334	: May cause allergy or asthma symptoms or breathing

**KMK 4901 NORMAL HARDENER**

Version  
2.0

Revision Date:  
19.02.2018

H335 : difficulties if inhaled.  
 H336 : May cause respiratory irritation.  
 H336 : May cause drowsiness or dizziness.  
 H411 : Toxic to aquatic life with long lasting effects.

**Full text of other abbreviations**

Acute Tox. : Acute toxicity  
 Aquatic Chronic : Chronic aquatic toxicity  
 Asp. Tox. : Aspiration hazard  
 Eye Irrit. : Eye irritation  
 Flam. Liq. : Flammable liquids  
 Resp. Sens. : Respiratory sensitisation  
 Skin Irrit. : Skin irritation  
 Skin Sens. : Skin sensitisation  
 STOT SE : Specific target organ toxicity - single exposure  
 2000/39/EC : Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values  
 ES VLA : Spain. Environmental Limits for exposure to Chemical agents - Table 1: Occupational Exposure Values  
 2000/39/EC / TWA : Limit Value - eight hours  
 2000/39/EC / STEL : Short term exposure limit  
 ES VLA / VLA-ED : Environmental Daily Limit Value  
 ES VLA / VLA-EC : Environmental Short Term Value

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical



## KMK 4901 NORMAL HARDENER

Version  
2.0

Revision Date:  
19.02.2018

---

Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

Sources of key data used to compile the Safety Data Sheet : <http://echa.europa.eu>, <http://eur-lex.europa.eu>

### Classification of the mixture:

Flam. Liq. 3	H226
Skin Irrit. 2	H315
Skin Sens. 1	H317
STOT SE 3	H336
STOT SE 3	H335
Aquatic Chronic 3	H412

### Classification procedure:

Based on product data or assessment
Based on product data or assessment
Calculation method
Based on product data or assessment
Based on product data or assessment
Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

ES / EN