

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 24.09.2019

Revision: 19.09.2019

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

- **1.1 Product identifier** HARDENERS
  - **Trade name:** H096 2K L.E. HARDENER EXTRA SLOW
  - **Article number:** H096
  - **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
Use as paint hardener
  - **Sector of Use**  
SU3 Industrial Uses: Uses of substances such as or in preparations at industrial sites  
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
  - **Product category**  
PC9a Coatings and paints, thinners, paint removers  
PC9b Fillers, putties, plasters, modelling clay
  - **Application of the substance / the mixture**  
refer to the relevant Technical Data Sheet  
with paint
  - **1.3 Details of the supplier of the safety data sheet**  
General Paint Co. S.A.L  
-Safety Department-
- For further information, please consult our Internet site  
[www.hymax.biz](http://www.hymax.biz)
- **Manufacturer/Supplier:**  
P.O. Box 7623  
Beirut LEBANON  
[info@hymax.biz](mailto:info@hymax.biz)  
Générale de Peinture, 70 Rue Cortambert 75116 Paris, France  
Tel:+33(0)175293559
  - **Further information obtainable from:** Product Safety Department
  - **1.4 Emergency telephone number:**  
+33 (0)6 07 87 13 41  
During normal opening times:(961) 9 925990 /1/2

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



Flam. Liq. 3 H226 Flammable liquid and vapour.

(Contd. on page 2)

LB/AR

## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 24.09.2019

Revision: 19.09.2019

**Trade name: H096 2K L.E. HARDENER EXTRA SLOW**

(Contd. of page 1)



Acute Tox. 4 H312 Harmful in contact with skin.  
 Acute Tox. 4 H332 Harmful if inhaled.  
 Skin Irrit. 2 H315 Causes skin irritation.  
 Eye Irrit. 2 H319 Causes serious eye irritation.  
 STOT SE 3 H335 May cause respiratory irritation.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS02 GHS07

· **Signal word** Warning

· **Hazard-determining components of labelling:**

Homopolymer of hexamethylene diisocyanate  
 2-Heptanone  
 2-butoxyethyl acetate  
 hexamethylene-di-isocyanate

· **Hazard statements**

H226 Flammable liquid and vapour.  
 H312+H332 Harmful in contact with skin or if inhaled.  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H335 May cause respiratory irritation.

· **Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.  
 P102 Keep out of reach of children.  
 P103 Read label before use.  
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
 No smoking.  
 P241 Use explosion-proof electrical/ventilating/lighting equipment.  
 P303+P361+P353 IF ON SKIN (or hair): 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.

(Contd. on page 3)

LB/AR

## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 24.09.2019

Revision: 19.09.2019

**Trade name: H096 2K L.E. HARDENER EXTRA SLOW**

(Contd. of page 2)

P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:**  
Contains hexamethylene-di-isocyanate. May produce an allergic reaction.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

28182-81-2	Homopolymer of hexamethylene diisocyanate ⚠ Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	>50-≤100%
110-43-0	2-Heptanone ⚠ Flam. Liq. 3, H226; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332	>10-≤25%
123-86-4	n-butyl acetate ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	>10-≤25%
112-07-2	2-butoxyethyl acetate ⚠ Acute Tox. 4, H312; Acute Tox. 4, H332	>2.5-≤10%
822-06-0	hexamethylene-di-isocyanate ⚠ Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ Resp. Sens. 1, H334; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	≤2.5%

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**  
Immediately remove any clothing soiled by the product.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
In case of unconsciousness place patient stably in side position for transportation.

(Contd. on page 4)

LB/AR

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.09.2019

Revision: 19.09.2019

**Trade name: H096 2K L.E. HARDENER EXTRA SLOW**

(Contd. of page 3)

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**  
No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.

(Contd. on page 5)

LB/AR

## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 24.09.2019

Revision: 19.09.2019

**Trade name: H096 2K L.E. HARDENER EXTRA SLOW**

(Contd. of page 4)

Protect against electrostatic charges.

- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Storage class:** 3
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

#### 110-43-0 2-Heptanone

IOELV (EU)	Short-term value: 475 mg/m <sup>3</sup> , 100 ppm Long-term value: 238 mg/m <sup>3</sup> , 50 ppm Skin
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#### 112-07-2 2-butoxyethyl acetate

IOELV (EU)	Short-term value: 333 mg/m <sup>3</sup> , 50 ppm Long-term value: 133 mg/m <sup>3</sup> , 20 ppm Skin
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- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

(Contd. on page 6)

## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 24.09.2019

Revision: 19.09.2019

**Trade name: H096 2K L.E. HARDENER EXTRA SLOW**

(Contd. of page 5)

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

### SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

<b>Form:</b>	Fluid
<b>Colour:</b>	According to product description
· <b>Odour:</b>	Characteristic
· <b>Odour threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

<b>Melting point/freezing point:</b>	Undetermined.
<b>Initial boiling point and boiling range:</b>	124 °C

· **Flash point:** 27 °C

· **Flammability (solid, gas):** Not applicable.

· **Ignition temperature:** 370 °C

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

(Contd. on page 7)

LB/AR

## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 24.09.2019

Revision: 19.09.2019

**Trade name: H096 2K L.E. HARDENER EXTRA SLOW**

(Contd. of page 6)

· <b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <b>Explosion limits:</b>	
<b>Lower:</b>	1 Vol %
<b>Upper:</b>	7.5 Vol %
· <b>Vapour pressure at 20 °C:</b>	10.7 hPa
· <b>Density at 20 °C:</b>	1.007 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	38.1 %
<b>VOC (EC)</b>	383.5 g/l
<b>Solids content:</b>	61.8 %
· <b>9.2 Other information</b>	No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

LB/AR

(Contd. on page 8)

## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 24.09.2019

Revision: 19.09.2019

**Trade name: H096 2K L.E. HARDENER EXTRA SLOW**

(Contd. of page 7)

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**  
*Harmful in contact with skin or if inhaled.*
- **Primary irritant effect:**
- **Skin corrosion/irritation**  
*Causes skin irritation.*
- **Serious eye damage/irritation**  
*Causes serious eye irritation.*
- **Respiratory or skin sensitisation** *Based on available data, the classification criteria are not met.*
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** *Based on available data, the classification criteria are not met.*
- **Carcinogenicity** *Based on available data, the classification criteria are not met.*
- **Reproductive toxicity** *Based on available data, the classification criteria are not met.*
- **STOT-single exposure**  
*May cause respiratory irritation.*
- **STOT-repeated exposure** *Based on available data, the classification criteria are not met.*
- **Aspiration hazard** *Based on available data, the classification criteria are not met.*

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** *No further relevant information available.*
- **12.2 Persistence and degradability** *No further relevant information available.*
- **12.3 Bioaccumulative potential** *No further relevant information available.*
- **12.4 Mobility in soil** *No further relevant information available.*
- **Additional ecological information:**
- **General notes:**  
*Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.*
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*
- **12.6 Other adverse effects** *No further relevant information available.*

LB/AR

(Contd. on page 9)



## Safety data sheet according to 1907/2006/EC, Article 31

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Revision: 19.09.2019


**Trade name: H096 2K L.E. HARDENER EXTRA SLOW**

(Contd. of page 8)

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

· <b>14.1 UN-Number</b>	
· <b>ADR, IMDG, IATA</b>	UN1263
· <b>14.2 UN proper shipping name</b>	
· <b>ADR</b>	1263 PAINT
· <b>IMDG, IATA</b>	PAINT
· <b>14.3 Transport hazard class(es)</b>	
· <b>ADR, IMDG, IATA</b>	
	
· <b>Class</b>	3 Flammable liquids.
· <b>Label</b>	3
· <b>14.4 Packing group</b>	
· <b>ADR, IMDG, IATA</b>	III
· <b>14.5 Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b>	Warning: Flammable liquids.
· <b>Danger code (Kemler):</b>	30
· <b>EMS Number:</b>	F-E, S-E
· <b>Stowage Category</b>	A
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.

(Contd. on page 10)

LB/AR

**Safety data sheet**  
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**Trade name: H096 2K L.E. HARDENER EXTRA SLOW**

(Contd. of page 9)

· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **Transport category**

3

· **Tunnel restriction code**

D/E

· **IMDG**

· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":**

UN 1263 PAINT, 3, III

**SECTION 15: Regulatory information**

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

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Seveso category** P5c FLAMMABLE LIQUIDS

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Relevant phrases**

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

(Contd. on page 11)

**Safety data sheet**  
**according to 1907/2006/EC, Article 31**

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Revision: 19.09.2019

**Trade name: H096 2K L.E. HARDENER EXTRA SLOW**

(Contd. of page 10)

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

• **Department issuing SDS:** Product safety department

• **Contact:** N/A

• **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 3: Acute toxicity – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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