

# Safety data sheet

according to 1907/2006/EC, Article 31




Printing date 26.10.2013

Revision: 14.08.2012

## 1 Product and Company Identification

- **Product identifier** HARDENERS
  - **Trade name:** H092 2K L.E. HARDENER SLOW
  - **Article number:** H092
  - **Relevant identified uses of the substance or mixture and uses advised against**  
Use as paint hardener
  - **Application of the substance / the preparation with paint**
  - **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.generalpaint.biz](http://www.generalpaint.biz)
- **Manufacturer/Supplier:**  
General Paint Co. SAL  
TURBO  
P.O. Box 7623  
Beirut  
LEBANON  
[info@generalpaint.biz](mailto:info@generalpaint.biz)
  - **Further information obtainable from:** Product safety department
  - **Emergency telephone number:** During normal opening times: (961) 9 925990 /1/2

## 2 Hazards identification

- **Classification of the substance or mixture**
  - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
    -  Xn; Harmful  
R20/21: Harmful by inhalation and in contact with skin.
    -  Xi; Irritant  
R36/37/38: Irritating to eyes, respiratory system and skin.
    - R10: Flammable.
  - **Information concerning particular hazards for human and environment:**  
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
  - **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- 
- **Label elements**
  - **Labelling according to EU guidelines:**  
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
  - **Code letter and hazard designation of product:**
    -  Xn Harmful
  - **Hazard-determining components of labelling:**  
Homopolymer of hexamethylene diisocyanate
  - **Risk phrases:**  
10 Flammable.

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20/21 Harmful by inhalation and in contact with skin.  
36/37/38 Irritating to eyes, respiratory system and skin.

**Safety phrases:**

- 2 Keep out of the reach of children.
- 36/37 Wear suitable protective clothing and gloves.
- 46 If swallowed, seek medical advice immediately and show this container or label.
- 56 Dispose of this material and its container to hazardous or special waste collection point.

**Special labelling of certain preparations:**

Contains isocyanates. See information supplied by the manufacturer  
Contains hexamethylene-di-isocyanate. May produce an allergic reaction.

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

- PBT:** Not applicable.
- vPvB:** Not applicable.

### 3 Composition/information on ingredients

**Chemical characterization: Mixtures**

**Description:** Mixture of substances listed below with nonhazardous additions.

**Dangerous components:**

28182-81-2	Homopolymer of hexamethylene diisocyanate ☒ Xn R20/21; ☒ Xi R36/37/38	50-100%
110-43-0	heptan-2-one ☒ Xn R20/22 R10	10-25%
822-06-0	hexamethylene-di-isocyanate ☒ T R23; ☒ Xn R42/43; ☒ Xi R36/37/38	½ 2.5%

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

### 4 First aid measures

**Description of first aid measures****General information:**

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.

**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.

**Information for doctor:****Most important symptoms and effects, both acute and delayed**

No further relevant information available.

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

No further relevant information available.

### 5 Firefighting measures

**Extinguishing media**

**Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

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- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **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.  
Do not flush with water or aqueous cleansing agents
- **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.

## 7 Handling and storage

- **Handling:**
- **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.  
Protect against electrostatic charges.
- **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
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

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

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

### 110-43-0 heptan-2-one

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

- **Additional information:** The lists valid during the making were used as basis.
- **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.

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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.

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

### 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form: Liquid

Colour: Clear

· **Odour:** Characteristic

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 124 °C

· **Flash point:** 27 °C

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

· **Ignition temperature:** 370 °C

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

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· <b>Explosion limits:</b>	
<b>Lower:</b>	1.0 Vol %
<b>Upper:</b>	7.5 Vol %
· <b>Vapour pressure at 20 °C:</b>	10.7 hPa
· <b>Density at 20 °C:</b>	1.003 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>	381.8 g/l
<b>Solids content:</b>	61.8 %
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

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

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

### 110-43-0 heptan-2-one

Oral	LD50	1670 mg/kg (rat)
Dermal	LD50	12600 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Harmful

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Irritant

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### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **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.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **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.

### 14 Transport information

- |   |                             |
|---|-----------------------------|
| · <b>UN-Number</b>  |                             |
| · <b>ADR, IMDG, IATA</b>  | UN1263                      |
| · <b>UN proper shipping name</b>  |                             |
| · <b>ADR</b>  | 1263 PAINT                  |
| · <b>IMDG, IATA</b>   | PAINT                       |
| · <b>Transport hazard class(es)</b>   |                             |
| · <b>ADR, IMDG, IATA</b>  |                             |
|  |                             |
| · <b>Class</b>  | 3 Flammable liquids.        |
| · <b>Label</b>  | 3                           |
| · <b>Packing group</b>  |                             |
| · <b>ADR, IMDG, IATA</b>  | III                         |
| · <b>Environmental hazards:</b>   |                             |
| · <b>Marine pollutant:</b>  | No                          |
| · <b>Special precautions for user</b>   | Warning: Flammable liquids. |
| · <b>Danger code (Kemler):</b>  | 30                          |

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- |  |                  |
|--|------------------|
| · <b>EMS Number:</b>   | F-E, <u>S</u> -E |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable.  |
| · <b>Transport/Additional information:</b>                                       |                  |
| · <b>ADR</b>   |                  |
| · <b>Limited quantities (LQ)</b>   | 5L               |
| · <b>Transport category</b>  | 3                |
| · <b>Tunnel restriction code</b>   | D/E              |

## 15 Regulatory information

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

## 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**
  - R10 Flammable.
  - R20/21 Harmful by inhalation and in contact with skin.
  - R20/22 Harmful by inhalation and if swallowed.
  - R23 Toxic by inhalation.
  - R36/37/38 Irritating to eyes, respiratory system and skin.
  - R42/43 May cause sensitisation by inhalation and skin contact.
- **Department issuing MSDS:** Product safety department
- **Contact:** Ms. Topaljikian

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