

Safety data sheet

according to 1907/2006/EC, Article 31




Printing date 12.10.2013

Revision: 14.08.2012

1 Product and Company Identification

- **Product identifier** HARDENERS
 - **Trade name:** H096 2K L.E. HARDENER EXTRA SLOW
 - **Article number:** H096
 - **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
- **Manufacturer/Supplier:**
General Paint Co. SAL
TURBO
P.O. Box 7623
Beirut
LEBANON
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.

(Contd. on page 2)

LB



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.10.2013

Revision: 14.08.2012

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

(Contd. of page 1)

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%
112-07-2	2-butoxyethyl acetate ☒ Xn R20/21	2.5-10%
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.

LB

(Contd. on page 3)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.10.2013

Revision: 14.08.2012

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

(Contd. of page 2)

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **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 ³ , 100 ppm
	Long-term value: 238 mg/m ³ , 50 ppm
	Skin

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.10.2013

Revision: 14.08.2012

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

(Contd. of page 3)

112-07-2 2-butoxyethyl acetate

IOELV (EU)	Short-term value: 333 mg/m ³ , 50 ppm Long-term value: 133 mg/m ³ , 20 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.
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: Fluid

Colour: According to product specification

- **Odour:** Characteristic

- **Odour threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range: Undetermined.

(Contd. on page 5)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.10.2013

Revision: 14.08.2012

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

(Contd. of page 4)

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.
· Explosion limits:	
Lower:	1.0 Vol %
Upper:	7.5 Vol %
· Vapour pressure at 20 °C:	10.7 hPa
· Density at 20 °C:	1.007 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	38.1 %
VOC (EC)	383.5 g/l
· Solids content:	61.8 %
· Other information	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)

(Contd. on page 6)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.10.2013

Revision: 14.08.2012

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

(Contd. of page 5)

- **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
Irritant

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

- | | |
|----------------------------------|------------|
| · UN-Number | |
| · ADR, IMDG, IATA | UN1263 |
| · UN proper shipping name | |
| · ADR | 1263 PAINT |
| · IMDG, IATA | PAINT |

- **Transport hazard class(es)**
- **ADR, IMDG, IATA**



- **Class** 3 Flammable liquids.

(Contd. on page 7)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.10.2013

Revision: 14.08.2012

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

(Contd. of page 6)

· Label	3
· Packing group · ADR, IMDG, IATA	III
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user · Danger code (Kemler): · EMS Number:	Warning: Flammable liquids. 30 F-E,S-E
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Transport category · Tunnel restriction code	5L 3 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

LB