



Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 07/01/2019

1 Identification

- **Product identifier**
- **Trade name: H920 2K L.E. HARDENER SLOW**
- **Article number: H920**
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
General Paint Co. S.A.L.
P.O. Box 7623
Beirut
LEBANON
info@generalpaint.biz
- **Information department: Product Safety Department**
- **Emergency telephone number: 1-800-535-5053 contract number (89244)**

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.



GHS07

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. 2A H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02 GHS07

- **Signal word** Warning

- **Hazard-determining components of labeling:**

Homopolymer of hexamethylene diisocyanate

(Contd. on page 2)

US



Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 07/01/2019

Trade name: H920 2K L.E. HARDENER SLOW

(Contd. of page 1)

2-Heptanone

hexamethylene-di-isocyanate

• **Hazard statements**

*Flammable liquid and vapor.**Harmful in contact with skin or if inhaled.**Causes skin irritation.**Causes serious eye irritation.**May cause respiratory irritation.*

• **Precautionary statements**

*Keep away from heat/sparks/open flames/hot surfaces. - No smoking.**Ground/bond container and receiving equipment.**Use explosion-proof electrical/ventilating/lighting/equipment.**Use only non-sparking tools.**Take precautionary measures against static discharge.**Avoid breathing dust/fume/gas/mist/vapors/spray**Wash thoroughly after handling.**Use only outdoors or in a well-ventilated area.**Wear protective gloves/protective clothing/eye protection/face protection.**If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.**IF INHALED: Remove person to fresh air and keep comfortable for breathing.**If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**Call a poison center/doctor if you feel unwell.**Specific treatment (see on this label).**Take off contaminated clothing and wash it before reuse.**If skin irritation occurs: Get medical advice/attention.**If eye irritation persists: Get medical advice/attention.**In case of fire: Use for extinction: CO2, powder or water spray.**Store in a well-ventilated place. Keep container tightly closed.**Store in a well-ventilated place. Keep cool.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.*

• **Classification system:**

• **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 3

Reactivity = 0

• **HMIS-ratings (scale 0 - 4)**



Health = 2

Fire = 3

Reactivity = 0

(Contd. on page 3)

US



Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 07/01/2019

Trade name: H920 2K L.E. HARDENER SLOW

(Contd. of page 2)

- **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 the substances listed below with nonhazardous additions.

- **Dangerous components:**

28182-81-2	Homopolymer of hexamethylene diisocyanate	>50-≤100%
123-86-4	n-butyl acetate	>10-≤25%
110-43-0	2-Heptanone	>10-≤25%
822-06-0	hexamethylene-di-isocyanate	≤2.5%

4 First-aid measures

- **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.
- **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 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet

(Contd. on page 4)

US



Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 07/01/2019

Trade name: H920 2K L.E. HARDENER SLOW

(Contd. of page 3)

- **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.
- **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.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

28182-81-2	Homopolymer of hexamethylene diisocyanate	7.8 mg/m ³
123-86-4	n-butyl acetate	5 ppm
110-43-0	2-Heptanone	150 ppm
822-06-0	hexamethylene-di-isocyanate	0.018 ppm

- **PAC-2:**

28182-81-2	Homopolymer of hexamethylene diisocyanate	86 mg/m ³
123-86-4	n-butyl acetate	200 ppm
110-43-0	2-Heptanone	670 ppm
822-06-0	hexamethylene-di-isocyanate	0.2 ppm

- **PAC-3:**

28182-81-2	Homopolymer of hexamethylene diisocyanate	510 mg/m ³
123-86-4	n-butyl acetate	3000* ppm
110-43-0	2-Heptanone	4000* ppm
822-06-0	hexamethylene-di-isocyanate	3 ppm

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

(Contd. on page 5)

US



Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 07/01/2019

Trade name: H920 2K L.E. HARDENER SLOW

(Contd. of page 4)

- **Information about protection against explosions and fires:**
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 receptacle 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 systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

123-86-4 n-butyl acetate

PEL	Long-term value: 710 mg/m ³ , 150 ppm
REL	Short-term value: 950 mg/m ³ , 200 ppm Long-term value: 710 mg/m ³ , 150 ppm
TLV	Short-term value: 712 mg/m ³ , 150 ppm Long-term value: 238 mg/m ³ , 50 ppm

110-43-0 2-Heptanone

PEL	Long-term value: 465 mg/m ³ , 100 ppm
REL	Long-term value: 465 mg/m ³ , 100 ppm
TLV	Long-term value: 233 mg/m ³ , 50 ppm

822-06-0 hexamethylene-di-isocyanate

REL	Long-term value: 0.035 mg/m ³ , 0.005 ppm Ceiling limit value: 0.14* mg/m ³ , 0.02* ppm *10-min
TLV	Long-term value: 0.034 mg/m ³ , 0.005 ppm BEI

- **Additional information:** The lists that were valid during the creation 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.

(Contd. on page 6)

US



Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 07/01/2019

Trade name: H920 2K L.E. HARDENER SLOW

(Contd. of page 5)

Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

• **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

• **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
• Color:	Clear
• Odor:	Characteristic
• Odor threshold:	Not determined.

• **pH-value:** Not determined.

• **Change in condition**

• Melting point/Melting range:	Undetermined.
• Boiling point/Boiling range:	124 °C (255.2 °F)

(Contd. on page 7)

-US



Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 07/01/2019

Trade name: H920 2K L.E. HARDENER SLOW

(Contd. of page 6)

· Flash point:	27 °C (80.6 °F)
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	370 °C (698 °F)
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	1 Vol %
Upper:	7.5 Vol %
· Vapor pressure at 20 °C (68 °F):	10.7 hPa (8 mm Hg)
· Density at 20 °C (68 °F):	1.003 g/cm ³ (8.37004 lbs/gal)
· Relative density	Not determined.
· Vapor 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 %
Coating VOC content:	38.07 %
	381.8 g/l / 3.19 lb/gal
Material VOC content:	381.8 g/l / 3.19 lb/gal
Solids content:	61.8 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **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.

(Contd. on page 8)

US



Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 07/01/2019

Trade name: H920 2K L.E. HARDENER SLOW

(Contd. of page 7)

- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **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 internally approved calculation methods for preparations:
Harmful
Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior 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 (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.

(Contd. on page 9)



Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 07/01/2019

Trade name: H920 2K L.E. HARDENER SLOW


(Contd. of page 8)


- **Other adverse effects** No further relevant information available.

13 Disposal considerations

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

14 Transport information

- | | |
|---|---|
| <ul style="list-style-type: none"> · UN-Number · DOT, ADR, IMDG, IATA | <p style="text-align: right;">UN1263</p> |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT · ADR · IMDG, IATA | <p style="text-align: right;">Paint
1263 PAINT
PAINT</p> |
| <ul style="list-style-type: none"> · Transport hazard class(es) · DOT | <div style="text-align: right;"> 

 3 Flammable liquids </div> |
| <ul style="list-style-type: none"> · Class · Label | <p style="text-align: right;">3</p> |
| <ul style="list-style-type: none"> · ADR, IMDG, IATA | <div style="text-align: right;"> 

 3 Flammable liquids </div> |
| <ul style="list-style-type: none"> · Class · Label | <p style="text-align: right;">3</p> |
| <ul style="list-style-type: none"> · Packing group · DOT, ADR, IMDG, IATA | <p style="text-align: right;">III</p> |
| <ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: | <p style="text-align: right;">No</p> |

(Contd. on page 10)

US



Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 07/01/2019

Trade name: H920 2K L.E. HARDENER SLOW

(Contd. of page 9)

<ul style="list-style-type: none"> · Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category 	<p>Warning: Flammable liquids</p> <p>30</p> <p>F-E,<u>S-E</u></p> <p>A</p>
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	<p>Not applicable.</p>
<ul style="list-style-type: none"> · Transport/Additional information: · DOT · Quantity limitations 	<p>On passenger aircraft/rail: 60 L</p> <p>On cargo aircraft only: 220 L</p>
<ul style="list-style-type: none"> · ADR · Excepted quantities (EQ) 	<p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 ml</p> <p>Maximum net quantity per outer packaging: 1000 ml</p>
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	<p>5L</p> <p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 ml</p> <p>Maximum net quantity per outer packaging: 1000 ml</p>
<ul style="list-style-type: none"> · UN "Model Regulation": 	<p>UN 1263 PAINT, 3, III</p>

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

822-06-0 hexamethylene-di-isocyanate

- **TSCA (Toxic Substances Control Act):**

28182-81-2	Homopolymer of hexamethylene diisocyanate	ACTIVE
123-86-4	n-butyl acetate	ACTIVE
110-43-0	2-Heptanone	ACTIVE
822-06-0	hexamethylene-di-isocyanate	ACTIVE
4083-64-1	4-isocyanatosulphonyltoluene	ACTIVE

- **Hazardous Air Pollutants**

822-06-0 hexamethylene-di-isocyanate

(Contd. on page 11)



Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 07/01/2019

Trade name: H920 2K L.E. HARDENER SLOW

(Contd. of page 10)

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02 GHS07

- **Signal word** Warning

- **Hazard-determining components of labeling:**

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

- **Hazard statements**

Flammable liquid and vapor.
Harmful in contact with skin or if inhaled.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.

- **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.

(Contd. on page 12)



Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 07/01/2019

Trade name: H920 2K L.E. HARDENER SLOW

(Contd. of page 11)

Take precautionary measures against static discharge.
Avoid breathing dust/fume/gas/mist/vapors/spray
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a poison center/doctor if you feel unwell.
Specific treatment (see on this label).
Take off contaminated clothing and wash it before reuse.
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
In case of fire: Use for extinction: CO₂, powder or water spray.
Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

- **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.

- **Department issuing SDS:** Product safety department
- **Contact:** N/A
- **Date of preparation / last revision** 09/11/2019 / -
- **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

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

(Contd. on page 13)



Safety Data Sheet
acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 07/01/2019

Trade name: H920 2K L.E. HARDENER SLOW

(Contd. of page 12)

REL: Recommended Exposure Limit
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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