



Printing date 07/16/2018 Reviewed on 06/04/2018

1 Identification

· Product identifier

· Trade name: H1522 2K HARDENER FAST

· Article number: H1522

· 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.



GHS08 Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carc. 2 H351 Suspected of causing cancer.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

- · Label elements
- · GHS label elements

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

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· Hazard pictograms







GHS02 GHS07 GHS08

· Signal word Danger

· Hazard-determining components of labeling:

Isophorone Diisocyanate homopolymer Homopolymer of hexamethylene diisocyanate n-butyl acetate ethyl acetate

· Hazard statements

Flammable liquid and vapor.

Causes skin irritation.

Causes serious eye irritation.

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

Suspected of causing cancer.

May cause respiratory irritation. May cause drowsiness or dizziness.

Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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.

[In case of inadequate ventilation] wear respiratory 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.

IF exposed or concerned: Get medical advice/attention.

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.

If experiencing respiratory symptoms: Call a poison center/doctor.

In case of fire: Use for extinction: CO2, powder or water spray.

Store in a well-ventilated place. Keep container tightly closed.

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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 = 3Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = *2 Fire = 3 Reactivity = 0

- · 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	>25-≤50%
123-86-4	n-butyl acetate	>25-≤50%
	Isophorone Diisocyanate homopolymer	>10- <i>≤</i> 25%
141-78-6	ethyl acetate	>2.5-≤10%
	2-methoxy-1-methylethyl acetate	>2.5-≤10%
1330-20-7	1 5	>2.5-≤10%
64742-95-6	Solvent naphtha (petroleum), light arom.	≤2.5%
100-41-4	ethylbenzene	≤2.5%

4 First-aid measures

- · Description of first aid measures
- · After inhalation: 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.

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- · 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
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: No special measures required.

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

28182-81-2	Homopolymer of hexamethylene diisocyanate	7.8 mg/m ³
123-86-4	n-butyl acetate	5 ppm
141-78-6	ethyl acetate	1,200 ppm
108-65-6	2-methoxy-1-methylethyl acetate	50 ppm
1330-20-7	xylene	130 ppm
100-41-4	ethylbenzene	33 ppm
822-06-0	hexamethylene-di-isocyanate	0.018 ppm
4098-71-9	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	0.02 ppm
PAC-2:		·
28182-81-2	Homopolymer of hexamethylene diisocyanate	86 mg/m³



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		(Contd. of page 4)	
123-86-4	n-butyl acetate	200 ppm	
141-78-6	141-78-6 ethyl acetate 108-65-6 2-methoxy-1-methylethyl acetate 1330-20-7 xylene		
108-65-6			
1330-20-7			
100-41-4	ethylbenzene	1100* ppm	
822-06-0	822-06-0 hexamethylene-di-isocyanate 4098-71-9 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate		
4098-71-9			
· PAC-3:			
28182-81-2	28182-81-2 Homopolymer of hexamethylene diisocyanate 510 mg/		
123-86-4	n-butyl acetate	3000* ppm	
141-78-6	ethyl acetate	10000** ppm	
108-65-6	65-6 2-methoxy-1-methylethyl acetate 5000* ppm 20-7 xylene 2500* ppm 41-4 ethylbenzene 1800* ppm		
1330-20-7			
100-41-4			
822-06-0	hexamethylene-di-isocyanate	3 ррт	
4098-71-9	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	0.6 ppm	

7 Handling and storage

- · Handling:
- · Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- · 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.

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(Contd. of page 5) At this time, the other constituents have no known exposure limits. 123-86-4 n-butyl acetate Long-term value: 710 mg/m³, 150 ppm PEL Short-term value: 950 mg/m³, 200 ppm REL Long-term value: 710 mg/m³, 150 ppm TLV Short-term value: 712 mg/m³, 150 ppm Long-term value: 238 mg/m³, 50 ppm 141-78-6 ethyl acetate Long-term value: 1400 mg/m³, 400 ppm PEL REL Long-term value: 1400 mg/m³, 400 ppm TLV Long-term value: 1440 mg/m³, 400 ppm 108-65-6 2-methoxy-1-methylethyl acetate WEEL Long-term value: 50 ppm 1330-20-7 xylene Long-term value: 435 mg/m³, 100 ppm PEL Short-term value: 655 mg/m³, 150 ppm REL Long-term value: 435 mg/m³, 100 ppm TLV Short-term value: 651 mg/m³, 150 ppm Long-term value: 434 mg/m³, 100 ppm BEI 100-41-4 ethylbenzene PEL Long-term value: 435 mg/m³, 100 ppm Short-term value: 545 mg/m³, 125 ppm REL Long-term value: 435 mg/m³, 100 ppm TLV Long-term value: 87 mg/m³, 20 ppm · Ingredients with biological limit values: 1330-20-7 xylene BEI 1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids 100-41-4 ethylbenzene BEI 0.7 g/g creatinine Medium: urine Time: end of shift at end of workweek Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific, semi-quantitative) Medium: end-exhaled air Time: not critical Parameter: Ethyl benzene (semi-quantitative)

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- · 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.

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: Fluid Color: Clear

· Odor: Characteristic

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	(Contd. of page
Odor threshold:	Not determined.
pH-value:	Not determined.
Change in condition Melting point/Melting range: Boiling point/Boiling range:	Undetermined. 77°C (170.6°F)
Flash point:	25 °C (77 °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 ai vapor mixtures are possible.
Explosion limits: Lower: Upper:	1.2 Vol % 7.5 Vol %
Vapor pressure at 20 °C (68 °F):	10.7 hPa (8 mm Hg)
Density at 20 °C (68 °F): Relative density Vapor density Evaporation rate	1.03091 g/cm³ (8.60294 lbs/gal) Not determined. Not determined. Not determined.
Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
Partition coefficient (n-octanol/water	er): Not determined.
Viscosity: Dynamic: Kinematic:	Not determined. Not determined.
Solvent content: Organic solvents: Coating VOC content:	47.1 % 47.07 % 485.2 g/l / 4.05 lb/gl
Material VOC content:	485.2 g/l / 4.05 lb/gl
Solids content: Other information	52.9 % No further relevant information available.





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

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

64742-95-6 Solvent naphtha (petroleum), light arom.

Oral	LD50	>6,800 mg/kg (rat)
Dermal	LD50	>3,400 mg/kg (rab)
Inhalative	LC50/4 h	>10.2 mg/l (rat)

- · Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitization: Sensitization possible through inhalation.
- 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)		
1330-20-7	xylene	3
100-41-4	ethylbenzene	2B

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.





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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 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

- · 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 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

· UN-Number

· DOT, ADR, IMDG, IATA UN1263

· UN proper shipping name

∙ DOT Paint
 ∙ ADR 1263 Paint

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(Contd. of page 10) · Transport hazard class(es) · DOT · Class 3 Flammable liquids · Label · ADR, IMDG, IATA · Class 3 Flammable liquids · Label · Packing group III· DOT, ADR, IMDG, IATA · Environmental hazards: · Marine pollutant: No · Special precautions for user Warning: Flammable liquids Danger code (Kemler): 30 F-E,S-E · EMS Number: · Stowage Category · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. · Transport/Additional information: · DOT · Quantity limitations On passenger aircraft/rail: 60 L On cargo aircraft only: 220 L · ADR · Excepted quantities (EQ) Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml · 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

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· UN "Model Regulation": UN 1263 PAINT, 3, III

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):
- 4098-71-9 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate
- · Section 313 (Specific toxic chemical listings):
- 1330-20-7 xylene
- 100-41-4 ethylbenzene
- 822-06-0 hexamethylene-di-isocyanate
- 4098-71-9 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate
- · TSCA (Toxic Substances Control Act):
- 28182-81-2 Homopolymer of hexamethylene diisocyanate
 - 123-86-4 n-butyl acetate
- 53880-05-0 Isophorone Diisocyanate homopolymer
 - 141-78-6 ethyl acetate
 - 108-65-6 2-methoxy-1-methylethyl acetate
 - 1330-20-7 xylene
 - 100-41-4 ethylbenzene
 - 822-06-0 hexamethylene-di-isocyanate
- 4098-71-9 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate
- · TSCA new (21st Century Act) (Substances not listed)
 - 53880-05-0 Isophorone Diisocyanate homopolymer
 - 64742-95-6 Solvent naphtha (petroleum), light arom.
- · Proposition 65
- · Chemicals known to cause cancer:
- 100-41-4 ethylbenzene
- · 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.

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· Carcinogenic categories

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· EPA (Envi	· EPA (Environmental Protection Agency)		
1330-20-7		1	
100-41-4	ethylbenzene	D	
· TLV (Threshold Limit Value established by ACGIH)			
1330-20-7		A4	
100-41-4	ethylbenzene	A3	
· 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 GHS08

· Signal word Danger

· Hazard-determining components of labeling:

Isophorone Diisocyanate homopolymer Homopolymer of hexamethylene diisocyanate n-butyl acetate ethyl acetate

· Hazard statements

Flammable liquid and vapor.

Causes skin irritation.

Causes serious eye irritation.

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

Suspected of causing cancer.

May cause respiratory irritation. May cause drowsiness or dizziness.

Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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.

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[In case of inadequate ventilation] wear respiratory 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.

IF exposed or concerned: Get medical advice/attention.

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.

If experiencing respiratory symptoms: Call a poison center/doctor.

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.

6 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: Ms. Topaljikian
- · Date of preparation / last revision 07/16/2018 / -
- · 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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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

REL: Recommended Exposure Limit

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Safety Data Sheet acc. to OSHA HCS

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BEI: Biological Exposure Limit
Flam. Liq. 3: Flammable liquids – Category 3
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Resp. Sens. 1: Respiratory sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3