

Page 1/15

Safety Data Sheet acc. to OSHA HCS

Printing date 06/22/2023 Reviewed on 06/22/2023

1 Identification

- · Product identifier
- · Trade name: HO23 VOC HARDENER NORMAL
- · Article number: HO23
- · Application of the substance / the mixture refer to the relevant Technical Data Sheet
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

General Paint Co. SAL

P.O. Box 7623

Beirut

LEBANON

info@hymax.biz

- · Information department: Product Safety Department
- Emergency telephone number:

1-800-535-5053 contract number (89244)

departamento de seguridad de los productos

2 Hazard(s) identification

· Classification of the substance or mixture



GHS02 Flame

Flammable Liquids 3 H226 Flammable liquid and vapor.



GHS08 Health hazard

Sensitization - Respiratory 1 H334 May cause allergy or asthma symptoms or

breathing difficulties if inhaled.

Carcinogenicity 2 H351 Suspected of causing cancer.



Skin Irritation 2 H315 Causes skin irritation.

Eye Irritation 2A H319 Causes serious eye irritation.

Specific Target Organ Toxicity - Single Exposure 3 H335 May cause respiratory irritation.

- · Label elements
- · GHS label elements

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

(Contd. on page 2)



Page 2/15

Safety Data Sheet acc. to OSHA HCS

Printing date 06/22/2023 Reviewed on 06/22/2023

Trade name: HO23 VOC HARDENER NORMAL

(Contd. of page 1)

· Hazard pictograms







GHS02 GHS07 GHS08

· Signal word Danger

· Hazard-determining components of labeling:

4-chloro-alpha,alpha,alpha-trifluorotoluene Homopolymer of hexamethylene diisocyanate Isophorone Diisocyanate homopolymer ethylbenzene

· 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.

· 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.

(Contd. on page 3)



Page 3/15

Safety Data Sheet acc. to OSHA HCS

Printing date 06/22/2023 Reviewed on 06/22/2023

Trade name: HO23 VOC HARDENER NORMAL

(Contd. of page 2)

In case of fire: Use CO2, powder or water spray to extinguish.

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 = 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:	
	Homopolymer of hexamethylene diisocyanate	>25- <i>≤</i> 50%
98-56-6	4-chloro-alpha,alpha,alpha-trifluorotoluene	>25- <i>≤</i> 50%
53880-05-0	Isophorone Diisocyanate homopolymer	>2.5- <i>≤</i> 10%
110-43-0	2-Heptanone	>2.5- <i>≤</i> 10%
79-20-9	methyl acetate	>2.5-≤10%
108-65-6	2-methoxy-1-methylethyl acetate	≤2.5%
100-41-4	ethylbenzene	≤2.5%

4 First-aid measures

- · Description of first aid measures
- · General information: Immediately remove any clothing soiled by the product.
- · After inhalation: In case of unconsciousness place patient stably in side position for transportation.

(Contd. on page 4)



Page 4/15

Safety Data Sheet acc. to OSHA HCS

Printing date 06/22/2023 Reviewed on 06/22/2023

Trade name: HO23 VOC HARDENER NORMAL

(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.
- Information for doctor:
- \cdot 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 section 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/m³
110-43-0	2-Heptanone	150 ppm
79-20-9	methyl acetate	250 ppm
108-65-6	2-methoxy-1-methylethyl acetate	50 ppm
1330-20-7	xylene	130 ppm
		(Contd. on page

US



Page 5/15

Safety Data Sheet acc. to OSHA HCS

Printing date 06/22/2023 Reviewed on 06/22/2023

Trade name: HO23 VOC HARDENER NORMAL

100-41-4	ethylbenzene	(Contd. of page 33 ppm
	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
110-43-0	2-Heptanone	670 ppm
79-20-9	methyl acetate	1,700 ppm
108-65-6	2-methoxy-1-methylethyl acetate	1,000 ppm
1330-20-7	xylene	920* ppm
100-41-4	ethylbenzene	1100* ppm
822-06-0	hexamethylene-di-isocyanate	0.2 ppm
4098-71-9	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	0.14 ppm
· PAC-3:		
28182-81-2	Homopolymer of hexamethylene diisocyanate	510 mg/m³
110-43-0	2-Heptanone	4000* ppm
79-20-9	methyl acetate	10000* ppm
108-65-6	2-methoxy-1-methylethyl acetate	5000* ppm
1330-20-7	xylene	2500* ppm
100-41-4	ethylbenzene	1800* ppm
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.

Open and handle receptacle with care.

Prevent formation of aerosols.

· Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

- · 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.

(Contd. on page 6)



Page 6/15

Safety Data Sheet acc. to OSHA HCS

Printing date 06/22/2023 Reviewed on 06/22/2023

Trade name: HO23 VOC HARDENER NORMAL

(Contd. of page 5)

- · 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 section 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 other constituents have no known exposure limits.

110-43	-0 2-Heptanone	
PEL	Long-term value: 465 mg/m³, 100 ppm	
REL	Long-term value: 465 mg/m³, 100 ppm	
TLV	Long-term value: 50 ppm	
79-20-	9 methyl acetate	
PEL	Long-term value: 610 mg/m³, 200 ppm	
REL	Short-term value: 760 mg/m³, 250 ppm Long-term value: 610 mg/m³, 200 ppm	
TLV	Short-term value: 250 ppm Long-term value: 200 ppm	
108-65	-6 2-methoxy-1-methylethyl acetate	
WEEL	Long-term value: 50 ppm	
100-41	100-41-4 ethylbenzene	
PEL	Long-term value: 435 mg/m³, 100 ppm	
REL	Short-term value: 545 mg/m³, 125 ppm Long-term value: 435 mg/m³, 100 ppm	
TLV	Long-term value: 20 ppm OTO, BEI, A3	
Ingrediants with histograph limit values.		

· Ingredients with biological limit values:

100-41-4 ethylbenzene

BEI 0.15 g/g creatinine

Medium: urine

Time: end of shift at end of workweek

Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific)

· Additional information: The lists that were valid during the creation were used as basis.

(Contd. on page 7)



Page 7/15

Safety Data Sheet acc. to OSHA HCS

Printing date 06/22/2023 Reviewed on 06/22/2023

Trade name: HO23 VOC HARDENER NORMAL

(Contd. of page 6)

- · 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.

Store protective clothing separately.

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

(Contd. on page 8)



Page 8/15

Safety Data Sheet acc. to OSHA HCS

Printing date 06/22/2023 Reviewed on 06/22/2023

Trade name: HO23 VOC HARDENER NORMAL

	(Contd. of page
Color:	Clear
· Odor:	Characteristic
Odor threshold:	Not determined.
pH-value:	Not determined.
Change in condition	Hadram's d
Melting point/Melting range: Boiling point/Boiling range:	Undetermined. 137°C (278.6°F)
<u> </u>	•
Flash point:	25 °C (77 °F)
Flammability (solid, gaseous):	Flammable.
Auto igniting:	430 °C (806 °F)
Decomposition temperature:	Not determined.
Ignition temperature:	Product is not selfigniting.
Danger of explosion:	Product is not explosive. However, formation of explosive a
	vapor mixtures are possible.
Explosion limits:	
Lower:	3.1 Vol %
Upper:	16 Vol %
Vapor pressure at 20 °C (68 °F):	220 hPa (165 mm Hg)
Density at 20 °C (68 °F):	1.20238 g/cm³ (10.03386 lbs/gal)
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	Net missible an elitically to miss
Water:	Not miscible or difficult to mix.
Partition coefficient (n-octanol/wat	er): Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Solvent content:	50.0 %
Organic solvents:	50.2 %
Coating VOC content:	6.96 %
	139.7 g/l / 1.17 lb/gal
Material VOC content:	83.7 g/l / 0.70 lb/gal
Solids content:	49.7 %

(Contd. on page 9)



Page 9/15

Safety Data Sheet acc. to OSHA HCS

Printing date 06/22/2023 Reviewed on 06/22/2023

Trade name: HO23 VOC HARDENER NORMAL

(Contd. of page 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.
- · 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: 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)		
98-56-6	4-chloro-alpha,alpha,alpha-trifluorotoluene	2B
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.

US



Page 10/15

Safety Data Sheet acc. to OSHA HCS

Printing date 06/22/2023 Reviewed on 06/22/2023

Trade name: HO23 VOC HARDENER NORMAL

(Contd. of page 9)

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:

· IMDG, IATA

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 ADR 	Paint 1263 PAINT

PAINT

(Contd. on page 11)



Page 11/15

Safety Data Sheet acc. to OSHA HCS

Printing date 06/22/2023 Reviewed on 06/22/2023

Trade name: HO23 VOC HARDENER NORMAL

(Contd. of page 10) **NOT APPLICABLE** · Transport hazard class(es) · DOT · Class 3 Flammable liquids · Label · ADR, IMDG, IATA 3 Flammable liquids · Class · Label 3 · Packing group · DOT, ADR, IMDG, IATA III· Environmental hazards: · Marine pollutant: No · Special precautions for user Warning: Flammable liquids · Hazard identification number (Kemler code): 30 · EMS Number: F-E,S-E · 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 5L · Limited quantities (LQ)

(Contd. on page 12)



Page 12/15

Safety Data Sheet acc. to OSHA HCS

Printing date 06/22/2023 Reviewed on 06/22/2023

Trade name: HO23 VOC HARDENER NORMAL

(Contd. of page 11)

	(Conta. or page 11)
· 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

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · 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	vylono
1330-20-7	xvierie

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):

All components have the value ACTIVE.

· Hazardous Air Pollutants

1330-20-7	vylana
1330-20-7	xyierie

100-41-4 ethylbenzene

822-06-0 hexamethylene-di-isocyanate

· Proposition 65

· Chemicals known to cause cancer:

98-56-6 4-chloro-alpha,alpha,alpha-trifluorotoluene

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.

(Contd. on page 13)



Page 13/15

Safety Data Sheet acc. to OSHA HCS

Printing date 06/22/2023 Reviewed on 06/22/2023

Trade name: HO23 VOC HARDENER NORMAL

(Contd. of page 12)

· Carcinogenic categories

our onrog	omo catogones	
· EPA (Env	ironmental Protection Agency)	
1330-20-7		I
100-41-4	ethylbenzene	D
· TLV (Thre	eshold Limit Value)	
1330-20-7	xylene	A4
100-41-4	ethylbenzene	АЗ
	a (National Institute for Occupational Safety and Health)	
None of th	e 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:

4-chloro-alpha,alpha,alpha-trifluorotoluene Homopolymer of hexamethylene diisocyanate Isophorone Diisocyanate homopolymer ethylbenzene

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.

· 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.

(Contd. on page 14)



Page 14/15

Safety Data Sheet acc. to OSHA HCS

Printing date 06/22/2023 Reviewed on 06/22/2023

Trade name: HO23 VOC HARDENER NORMAL

(Contd. of page 13)

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 CO2, powder or water spray to extinguish.

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 06/22/2023
- · 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 relatif au transport international 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

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, ÉU)

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

(Contd. on page 15)



Page 15/15

Safety Data Sheet acc. to OSHA HCS

Printing date 06/22/2023 Reviewed on 06/22/2023

Trade name: HO23 VOC HARDENER NORMAL

(Contd. of page 14)

PEL: Permissible Exposure Limit REL: Recommended Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Flammable Liquids 3: Flammable liquids – Category 3

Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

Sensitization - Respiratory 1: Respiratory sensitisation – Category 1

Carcinogenicity 2: Carcinogenicity – Category 2

Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

* Data compared to the provious version altered

· * Data compared to the previous version altered.