

CP 620

Safety information for 2-Component-products

Issue date: 26/06/2025 Revision date: 26/06/2025 Supersedes: 09/04/2025 Version: 9.0

SECTION 1: Kit identification

1.1 Product identifier

Trade name CP 620



Product code BU Fire Protection

1.2 Details of the supplier of the Safety information for 2-Component-products

P.T. Hilti Nusantara
The Garden Center Level 3 No. 3-11B, Kawasan Komersial Cilandak
Jl. Raya Cilandak KKO
12560 Jakarta - Indonesia
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moid@hilti.com

SECTION 2: General information

A SDS for each of these components is included. Please do not separate any component SDS from this cover page

SECTION 3:

Classification of the Product

Classification according to the United Nations GHS

Acute Tox. 4 (Inhalation)	H332
Skin Irrit. 2	H315
Eye Irrit. 2A	H319
Resp. Sens. 1	H334
Skin Sens. 1	H317
Carc. 2	H351
Repr. 2	H361
STOT SE 3	H335
STOT RE 2	H373
Aquatic Chronic 3	H412

Label elements

Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)





GHS07

Danger

GHS08

Signal word (GHS UN)

Hazardous ingredients 4,4'-diphenylmethanediisocyanate, isomeres and homologues; zinc borate

Hazard statements (GHS UN) H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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H335 - May cause respiratory irritation.

H351 - Suspected of causing cancer.

H361 - Suspected of damaging fertility or the unborn child.

H373 - May cause damage to organs through prolonged or repeated exposure.

H412 - Harmful to aquatic life with long lasting effects.

P260 - Do not breathe vapours. Precautionary statements (GHS UN)

P280 - Wear eye protection, protective clothing, protective gloves. P284 - In case of inadequate ventilation wear respiratory protection.

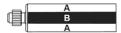
P302+P352 - IF ON SKIN: Wash with plenty of water.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

P342+P311 - If experiencing respiratory symptoms: Call a doctor, a POISON CENTER.

Additional information



Name	General description	Quantity	Unit	Classification according to the United Nations GHS
CP 620, A (RoW)		1	pcs (pieces)	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 2, H351 Repr. 2, H361 Aquatic Chronic 3, H412
CP 620, B		1	pcs (pieces)	Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373

SECTION 4: General advice

For professional users only General advice

SECTION 5: Safe handling advice

Environmental precautions Avoid release to the environment Storage conditions

Store in a well-ventilated place.

Keep cool.

Precautions for safe handling Do not handle until all safety precautions have been read and understood.

Wear personal protective equipment

Do not breathe vapours.

Use only outdoors or in a well-ventilated area.

Avoid contact with skin and eyes

In case of inadequate ventilation wear respiratory protection.

Take up liquid spill into absorbent material Methods for cleaning up

Notify authorities if product enters sewers or public waters

Incompatible materials Sources of ignition

Direct sunlight

Incompatible products Strong bases

Strong acids

SECTION 6: First aid measures

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First-aid measures after eye contact Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion Call a poison center or a doctor if you feel unwell

First-aid measures after inhalation Remove person to fresh air and keep comfortable for breathing.

Call a poison center or a doctor if you feel unwell

First-aid measures after skin contact Wash with plenty of water/...

If skin irritation or rash occurs: Get medical advice/attention.

Take off contaminated clothing.

First-aid measures general If you feel unwell, seek medical advice (show the label where possible)

Symptoms/effects after eye contact Eye irritation

Symptoms/effects after inhalation May cause respiratory irritation.

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

Symptoms/effects after skin contact Irritation

May cause an allergic skin reaction.

SECTION 7: Fire fighting measures

Firefighting instructions

Use water spray or fog for cooling exposed containers

Exercise caution when fighting any chemical fire Prevent fire fighting water from entering the environment

Protection during firefighting Self-contained breathing apparatus

Complete protective clothing

Hazardous decomposition products in case of Toxic fumes may be released fire Carbon dioxide

Carbon dioxide
Carbon monoxide

SECTION 8: Other information

No data available

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SECTION 1: Identification

1.1. GHS Product identifier

Product form Mixture
Trade name CP 620, A
Product code BU Fire Protection

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use Firestop foam

1.4. Supplier's details

Supplier

P.T. Hilti Nusantara The Garden Center Level 3 No. 3-11B, Kawasan Komersial Cilandak

Jl. Raya Cilandak KKO ID 12560 Jakarta Indonesia

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Department issuing data specification sheet

Hilti AG

Feldkircherstraße 100 FL 9494 Schaan Liechtenstein T +423 234 2111

product.compliance-fire.protection@hilti.com

1.5. Emergency phone number

Emergency number Emergency CONTACT (24-Hour-Number):

GBK GmbH Global Regulatory Compliance

+49 (0)6132-84463

+62 21 789 0850

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Skin corrosion/irritation, Category 2
H315
Calculation method
Serious eye damage/eye irritation, Category 2
H319
Carcinogenicity, Category 2
H351
Calculation method
Carcinogenicity, Category 2
H361
Calculation method
Hazardous to the aquatic environment – Chronic Hazard, Category 3
H412
Calculation method
Calculation method

Full text of H-statements: see section 16

Adverse physicochemical, human health and

environmental effects

Suspected of damaging fertility or the unborn child, Causes skin irritation, Causes serious

eye irritation, Harmful to aquatic life with long lasting effects.

2.2. GHS Label elements, including precautionary statements

Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)





Signal word (GHS UN)

Hazardous ingredients hexaboron dizinc undecaoxide; Reaction products of phosphoryl trichloride and 2-

methyloxirane

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Hazard statements (GHS UN) H315+H319 - Causes skin irritation and serious eye irritation

H351 - Suspected of causing cancer

H361 - Suspected of damaging fertility or the unborn child H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (GHS UN) P280 - Wear eye protection, protective clothing, protective gloves.

P302+P352 - IF ON SKIN: Wash with plenty of water.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
Ethylenediamine, propoxylated	CAS-No.: 25214-63-5	25 – 40	Flammable liquids Not classified Serious eye damage/eye irritation, Category 2A, H319 Hazardous to the aquatic environment – Acute Hazard Not classified Hazardous to the aquatic environment – Chronic Hazard Not classified
hexaboron dizinc undecaoxide	CAS-No.: 12767-90-7	2.5 – 5	Acute toxicity (oral) Not classified Acute toxicity (dermal) Not classified Reproductive toxicity, Category 2, H361 Hazardous to the aquatic environment – Acute Hazard, Category 1, H400 Hazardous to the aquatic environment – Chronic Hazard, Category 2, H411

Full text of H-statements: see section 16

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general

IF exposed or concerned: Get medical advice/attention. Never give anything by mouth to an unconscious person.

First-aid measures after inhalation

Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact

Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention. Wash with plenty of water/.... Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label).

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First-aid measures after eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If eye irritation

persists: Get medical advice/attention.

First-aid measures after ingestion Call a poison center or a doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting.

Obtain emergency medical attention.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after skin contact Irritation. Causes skin irritation.

Symptoms/effects after eye contact Eye irritation. Causes serious eye irritation.

Potential adverse human health effects and Based on available data, the classification criteria are not met.

symptoms

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media Water spray. Dry powder. Foam. Carbon dioxide. Sand.

Unsuitable extinguishing media Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire

Toxic fumes may be released.

5.3. Special protective actions for fire-fighters

chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing. Do not enter fire area without proper

protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures Ventilate spillage area. Avoid contact with skin and eyes. Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection". Equip cleanup crew with proper

protection.

Emergency procedures Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up Take up liquid spill into absorbent material. Notify authorities if product enters sewers or

public waters. Soak up spills with inert solids, such as clay or diatomaceous earth as soon

as possible. Collect spillage. Store away from other materials.

Other information Dispose of materials or solid residues at an authorized site.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling Ensure good ventilation of the work station. Obtain special instructions before use. Do not

handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this

product. Always wash hands after handling the product. Wash hands, forearms and face

thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions Store locked up. Store in a well-ventilated place. Keep only in the original container in a

cool, well ventilated place away from : Keep container closed when not in use.

Strong bases. Strong acids.
Sources of ignition. Direct sunlight.

Storage temperature 5-25 °C

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Incompatible products

Incompatible materials

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls

Environmental exposure controls

Other information

Ensure good ventilation of the work station.

Avoid release to the environment.

Do not eat, drink or smoke during use.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:

Safety glasses. Protective clothing. Gloves. Avoid all unnecessary exposure.

Hand protection Protective gloves. Wear protective gloves.

Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)			EN ISO 374

Eye protection Chemical goggles or safety glasses

Туре	Field of application	Characteristics	Standard
Safety glasses	Droplet		EN 166, EN 170

Skin and body protection Wear suitable protective clothing

Respiratory protection [In case of inadequate ventilation] wear respiratory protection. Wear appropriate mask

Personal protective equipment symbol(s)







8.4. Exposure limit values for the other components

No additional information available

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SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state Liquid Colour red.

Odour characteristic.
Odour threshold Not available
Melting point Not applicable
Freezing point Not available
Boiling point Not available

Flammability Not applicable, Non flammable.

Not available Lower explosion limit Not available Upper explosion limit Not applicable. Flash point Not available Auto-ignition temperature Decomposition temperature Not available Not determined Ha pH solution Not available Viscosity, kinematic (calculated value) (40 °C) Not available Partition coefficient n-octanol/water (Log Kow) Not available Vapour pressure Not available Vapour pressure at 50°C Not available Density ≈ 1.17 g/cm³ Relative density Not available Relative vapour density at 20°C Not available Solubility Not available Particle size Not applicable

9.2. Data relevant with regard to physical hazard classes (supplemental)

VOC content 15 mg/l EPA method 24 (CP 620, Comp. A + B)

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions. Not established.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Not established.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)

Acute toxicity (dermal)

Acute toxicity (inhalation)

Not classified

Not classified

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hexaboron dizinc undecaoxide (12767-90-7)		
LD50 oral rat	> 5000 mg/kg bodyweight (FIFRA (40 CFR), Rat, Male / female, Experimental value, Oral, 14 day(s))	
LD50 dermal rabbit	> 5000 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Skin, 14 day(s))	
LC50 Inhalation - Rat	> 4.95 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value of similar product, Inhalation (dust), 14 day(s))	
Skin corrosion/irritation	Causes skin irritation. pH: Not determined	
Serious eye damage/irritation	Causes serious eye irritation. pH: Not determined	
Respiratory or skin sensitization	Not classified	
Germ cell mutagenicity	Not classified	
Carcinogenicity	Suspected of causing cancer.	
Reproductive toxicity	Suspected of damaging fertility or the unborn child.	
STOT-single exposure	Not classified	
STOT-repeated exposure	Not classified	
Aspiration hazard	Not classified	
Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met.	

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general Harmful to aquatic life with long lasting effects.

Ecology - water Harmful to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term

(acute)

Hazardous to the aquatic environment, long-term

(chronic)

Classification procedure (Hazardous to the aquatic

environment, long-term (chronic))

Harmful to aquatic life with long lasting effects.

Calculation method

Not classified

Ethylenediamine, propoxylated (25214-63-5)		
LC50 - Fish [1]	4500 mg/l Leuciscus idus (golden orfe)	
EC50 72h - Algae [1]	35 mg/l	
NOEC chronic crustacea	> 1 mg/l	
hexaboron dizinc undecaoxide (12767-90-7)		
LC50 - Fish [1]	79.7 mg/l Freshwater fish	
LC50 - Fish [2]	74 mg/l Marine water fish	

12.2. Persistence and degradability

CP 620, A		
Persistence and degradability	May cause long-term adverse effects in the environment.	
Ethylenediamine, propoxylated (25214-63-5)		
Persistence and degradability Rapidly degradable		
hexaboron dizinc undecaoxide (12767-90-7)		
Persistence and degradability	Biodegradability: not applicable.	
Chemical oxygen demand (COD)	Not applicable	

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hexaboron dizinc undecaoxide (12767-90-7)	
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

CP 620, A

Bioaccumulative potential Not established.

hexaboron dizinc undecaoxide (12767-90-7)

Bioaccumulative potential No bioaccumulation data available.

12.4. Mobility in soil

CP 620, A

Mobility in soil No additional information available

hexaboron dizinc undecaoxide (12767-90-7)

Ecology - soil Adsorbs into the soil.

12.5. Other adverse effects

Ozone Not classified

Other adverse effects

No additional information available
Other information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations Dispose in a safe manner in accordance with local/national regulations. Dispose of

contents/container to hazardous or special waste collection point, in accordance with local,

regional, national and/or international regulation.

Ecological waste information Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID /

ADR	IMDG	IATA	RID		
14.1. UN number or ID number	4.1. UN number or ID number				
Not regulated	Not regulated	Not regulated	Not regulated		
14.2. UN proper shipping name	e				
Not regulated	Not regulated	Not regulated	Not regulated		
14.3. Transport hazard class(e	14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated		
14.4. Packing group					
Not regulated	Not regulated	Not regulated	Not regulated		
14.5. Environmental hazards					
Not regulated	Not regulated	Not regulated	Not regulated		
No supplementary information available					

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14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

SECTION 16: Other information

 SDS Major/Minor
 None

 Issue date
 6/26/2025

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 6/26/2025

 Supersedes
 2/8/2021

Section	Changed item	Comments
	Classification (GHS UN)	Added H351
	Composition/information on ingredients	Added TCPP: Carc. 2, H351

Other information None.

Full text of H-statements:		
Acute Tox. Not classified (Dermal)	Acute toxicity (dermal) Not classified	
Acute Tox. Not classified (Oral)	Acute toxicity (oral) Not classified	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1	
Aquatic Acute Not classified	Hazardous to the aquatic environment – Acute Hazard Not classified	
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2	
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3	
Aquatic Chronic Not classified	Hazardous to the aquatic environment – Chronic Hazard Not classified	
Carc. 2	Carcinogenicity, Category 2	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	

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Full text of H-statements:		
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A	
Flam. Liq. Not classified	Flammable liquids Not classified	
Repr. 2	Reproductive toxicity, Category 2	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
H315	Causes skin irritation	
H319	Causes serious eye irritation	
H351	Suspected of causing cancer	
H361	Suspected of damaging fertility or the unborn child	
H400	Very toxic to aquatic life	
H411	Toxic to aquatic life with long lasting effects	
H412	Harmful to aquatic life with long lasting effects	

SDS_UN_Hilti

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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SECTION 1: Identification

1.1. GHS Product identifier

Product form Mixture
Trade name CP 620, B
Product code BU Fire Protection

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture Firestop foam Recommended use Firestop foam

1.4. Supplier's details

Supplier

P.T. Hilti Nusantara

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Department issuing data specification sheet

Hilti AG

Feldkircherstraße 100 FL 9494 Schaan Liechtenstein T +423 234 2111

product.compliance-fire.protection@hilti.com

1.5. Emergency phone number

Emergency number Emergency CONTACT (24-Hour-Number):

GBK GmbH Global Regulatory Compliance

+49 (0)6132-84463

+62 21 789 0850

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Acute toxicity (inhal.), Category 4	H332	Expert judgement
Acute toxicity (inhalation:dust,mist) Category 4	H332	Calculation method
Skin corrosion/irritation, Category 2	H315	Calculation method
Serious eye damage/eye irritation, Category 2A	H319	Calculation method
Respiratory sensitisation, Category 1	H334	Calculation method
Skin sensitisation, Category 1	H317	Calculation method
Carcinogenicity, Category 2	H351	Calculation method
Specific target organ toxicity – Single exposure, Category 3,	H335	Calculation method
Respiratory tract irritation		
Specific target organ toxicity – Repeated exposure, Category 2	H373	Calculation method

Full text of H-statements: see section 16

Adverse physicochemical, human health and

environmental effects

Suspected of causing cancer, May cause damage to organs through prolonged or repeated exposure, Harmful if inhaled, May cause respiratory irritation, Causes skin irritation, May cause an allergic skin reaction, Causes serious eye irritation, May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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Safety Data Sheet

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2.2. GHS Label elements, including precautionary statements

Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)





Signal word (GHS UN) Hazardous ingredients

Hazard statements (GHS UN)

Dange

4,4'-diphenylmethanediisocyanate, isomeres and homologues

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation

H332 - Harmful if inhaled

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H335 - May cause respiratory irritation H351 - Suspected of causing cancer

H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS UN) P260 - Do not breathe vapours.

P280 - Wear eye protection, protective clothing, protective gloves. P284 - In case of inadequate ventilation wear respiratory protection.

P302+P352 - IF ON SKIN: Wash with plenty of water.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

P342+P311 - If experiencing respiratory symptoms: Call a doctor, a POISON CENTER.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

3.2.	RЛ	livtu	ros
J.Z.	IVI	IXLU	IIES

Name	Product identifier	%	Classification according to the United Nations GHS
4,4'-diphenylmethanediisocyanate, isomeres and homologues	CAS-No.: 9016-87-9	≥ 40	Flammable liquids Not classified Acute toxicity (oral) Not classified Acute toxicity (dermal) Not classified Acute toxicity (inhal.), Category 4, H332 Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2, H319 Respiratory sensitisation, Category 1, H334 Skin sensitisation, Category 1, H317 Carcinogenicity, Category 2, H351 Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation, H335 Specific target organ toxicity — Repeated exposure, Category 2, H373
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	CAS-No.: 101-68-8	25 – 60	Acute toxicity (oral) Not classified Acute toxicity (dermal) Not classified Acute toxicity (inhal.), Category 4, H332 Acute toxicity (inhalation:dust,mist) Category 4, H332 Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2, H319 Serious eye damage/eye irritation, Category 2A, H319 Respiratory sensitisation, Category 1, H334 Skin sensitisation, Category 1, H317 Carcinogenicity, Category 2, H351 Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation, H335 Specific target organ toxicity – Repeated exposure, Category 2, H373
Reaction products of phosphoryl trichloride and 2-methyloxirane	CAS-No.: 13674-84-5	10 – 25	Acute toxicity (oral), Category 4, H302 Carcinogenicity, Category 2, H351 Hazardous to the aquatic environment – Chronic Hazard, Category 3, H412

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Full text of H-statements: see section 16

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation Remove person to fresh air and keep comfortable for breathing. Call a poison center or a

doctor if you feel unwell. Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory

symptoms: Call a POISON CENTER/doctor.

First-aid measures after skin contact Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash

occurs: Get medical advice/attention. Wash with plenty of water/.... Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label). If skin irritation or rash

occurs:

First-aid measures after eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If eye irritation

persists: Get medical advice/attention.

First-aid measures after ingestion Call a poison center or a doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting.

Obtain emergency medical attention.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation May cause respiratory irritation. May cause allergy or asthma symptoms or breathing

difficulties if inhaled. Danger of serious damage to health by prolonged exposure through

inhalation. May cause an allergic skin reaction.

Symptoms/effects after skin contact Irritation. May cause an allergic skin reaction. Causes skin irritation.

Symptoms/effects after eye contact Eye irritation. Causes serious eye irritation.

Potential adverse human health effects and

symptoms

Harmful if inhaled.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media Water spray. Dry powder. Foam. Carbon dioxide. Sand.

Unsuitable extinguishing media Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire

Toxic fumes may be released.

5.3. Special protective actions for fire-fighters

chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing. Do not enter fire area without proper

protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact

with skin and eyes. Evacuate unnecessary personnel.

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6.1.2. For emergency responders

Protective equipment Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection". Equip cleanup crew with proper

protection.

Emergency procedures Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up Take up liquid spill into absorbent material. Notify authorities if product enters sewers or

public waters. Soak up spills with inert solids, such as clay or diatomaceous earth as soon

as possible. Collect spillage. Store away from other materials.

Other information

Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling Obtain special instructions before use. Do not handle until all safety precautions have been

read and understood. Wear personal protective equipment. Do not breathe

dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in

process area to prevent formation of vapour. Avoid breathing

dust/fume/gas/mist/vapours/spray.

Hygiene measures Wash contaminated clothing before reuse. Contaminated work clothing should not be

allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash hands, forearms and face thoroughly after

handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep only in

the original container in a cool, well ventilated place away from :

Incompatible products

Strong bases. Strong acids.

Incompatible materials

Sources of ignition. Direct sunlight.

Storage temperature 5-25 °C

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls

Environmental exposure controls

Other information

Ensure good ventilation of the work station.

Avoid release to the environment.

Do not eat, drink or smoke during use.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:

Gloves. Protective clothing. Safety glasses. Avoid all unnecessary exposure.

Hand protection Wear suitable gloves tested to EN374. Suitable for short-term work or as a splash guard:

Nitrile rubber gloves (> 0.1 mm). In case of permanent product contact:

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Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	≥ 0,35		
Disposable gloves	Butyl rubber	6 (> 480 minutes)	≥ 0,35		

Eye protection Chemical goggles or safety glasses

Туре	Field of application	Characteristics	Standard
Safety glasses	Droplet		EN 166, EN 170

Skin and body protection Wear suitable protective clothing

Respiratory protection

Not necessary with sufficient ventilation. Ensure good ventilation of the work station. Open windows during application to ensure natural ventilation. If the occupational exposure limit is

exceeded: Wear appropriate mask. (e.g. gas filter type A1-P2 according to EN 14387)

Personal protective equipment symbol(s)







8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state Liquid
Colour amber.
Odour characteristic.
Odour threshold Not available
Melting point Not applicable
Freezing point Not available
Boiling point Not available

Flammability Not applicable, Non flammable.

Lower explosion limit Not available Not available Upper explosion limit Not available Flash point Not available Auto-ignition temperature Not available Decomposition temperature Not available Not available pH solution Viscosity, kinematic (calculated value) (40 °C) Not available Partition coefficient n-octanol/water (Log Kow) Not available Vapour pressure Not available Vapour pressure at 50°C Not available ≈ 1.032 g/cm³ Density Not available Relative density Relative vapour density at 20°C Not available Solubility Not available Particle size Not applicable

9.2. Data relevant with regard to physical hazard classes (supplemental)

VOC content 15 g/l EPA method 24 (CP 620, Comp. A + B)

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SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions. Not established.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Not established.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

Germ cell mutagenicity

Carcinogenicity

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

1.	1 1	Informat	ion on t	oxicolo	naical	offects
		. IIIIOIIIIat	IOII OII L	UXICUI	Juicai	enecis

Acute toxicity (oral) Not classified Acute toxicity (dermal) Not classified

Acute toxicity (inhalation) Harmful if inhaled. Inhalation:dust,mist: Harmful if inhaled.

Addic toxicity (ilinalation)	Harmar i illialea. Illialation.aust, mist. Harmar il illialea.				
CP 620, B					
ATE UN (gases)	4500 ppmv/4h				
ATE UN (vapours)	11 mg/l/4h				
ATE UN (dust,mist)	1.5 mg/l/4h				
4,4'-diphenylmethanediisocyanate, isome	4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)				
LD50 oral rat	> 10000 mg/kg (Rat, Literature study, Oral)				
LD50 dermal rabbit	> 5000 mg/kg (Rabbit, Literature study, Dermal)				
LD50 dermal	9400 mg/kg				
LC50 Inhalation - Rat	0.49 mg/l				
4,4'-methylenediphenyl diisocyanate; dipl	henylmethane-4,4'-diisocyanate (101-68-8)				
LD50 oral rat	> 2000 mg/kg				
LD50 oral	31600 mg/kg				
LD50 dermal rabbit	> 9400 mg/kg				
LC50 Inhalation - Rat (Dust/Mist)	> 0.368 mg/l/4h				
Skin corrosion/irritation	Causes skin irritation.				
Serious eye damage/irritation	Causes serious eye irritation.				
Respiratory or skin sensitization	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.				

 4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)

 IARC group
 3 - Not classifiable

Suspected of causing cancer.

Not classified

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4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8)				
IARC group	3 - Not classifiable			
Reproductive toxicity	Not classified			
STOT-single exposure	May cause respiratory irritation.			
4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)				
STOT-single exposure	May cause respiratory irritation.			
4,4'-methylenediphenyl diisocyanate; dip	henylmethane-4,4'-diisocyanate (101-68-8)			
STOT-single exposure	May cause respiratory irritation.			
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.			
4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)				
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.			
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8)				
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.			
Aspiration hazard	Not classified			
Potential adverse human health effects and	Harmful if inhaled.			
symptoms				

SECTION 12: Ecological information

Ecology - general The product is not considered harmful to aquatic organisms nor to cause long-term adverse

effects in the environment.

 $\label{thm:local_equation} \mbox{Hazardous to the aquatic environment, short-term}$

(acute)

Not classified

Hazardous to the aquatic environment, long-term

(chronic)

Not classified

4,4'-diphenylmethanediisocyanate, isomeres a	and homologues (9016-87-9)

LC50 - Other aquatic organisms [1] > 1000 mg/l (96 h, Literature study)

12.2. Persistence and degradability

12.2. Persistence and degradability			
CP 620, B			
Persistence and degradability	Not established.		
4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)			
Persistence and degradability	Not readily biodegradable in water.		
Reaction products of phosphoryl trichloride and 2-methyloxirane			
Persistence and degradability	Rapidly degradable		
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8)			
Persistence and degradability	Not rapidly degradable		

12.3. Bioaccumulative potential

CP 620, B	
Bioaccumulative potential	Not established.
4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)	
BCF - Fish [1]	268.1 l/kg (BCFBAF v3.01, Estimated value, Fresh weight)

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4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)	
Partition coefficient n-octanol/water (Log Kow)	10.46 (Calculated, KOWWIN)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

CP 620, B	
Mobility in soil	No additional information available
4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)	
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	9.078 – 10.597 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Adsorbs into the soil.

12.5. Other adverse effects

Ozone Not classified

Other adverse effects

No additional information available
Other information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods

Product/Packaging disposal recommendations

Dispose of contents/container in accordance with licensed collector's sorting instructions. Dispose in a safe manner in accordance with local/national regulations. Dispose of

contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Avaid release to the environment

Ecological waste information

Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID /

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name	14.2. UN proper shipping name		
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

14.6. Special precautions for user

Overland transport

Not regulated

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Transport by sea

Not regulated

Air transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

SECTION 16: Other information

 SDS Major/Minor
 None

 Issue date
 6/26/2025

 Revision date
 3/20/2025

 Supersedes
 2/8/2021

Section	Changed item	Comments
	Composition/information on ingredients	Added TCPP: Carc. 2, H351

Abbreviations and acronyms

CAS-No. - Chemical Abstract Service number

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE - Acute Toxicity Estimate BCF - Bioconcentration factor

BLV - Biological limit value

BOD - Biochemical oxygen demand (BOD)

CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

DMEL - Derived Minimal Effect level
DNEL - Derived-No Effect Level
EC-No. - European Community number
EC50 - Median effective concentration

ED - Endocrine disruptor EN - European Standard

IARC - International Agency for Research on Cancer

IATA - International Air Transport Association IMDG - International Maritime Dangerous Goods

IOELV - Indicative Occupational Exposure Limit Value

LC50 - Median lethal concentration

LD50 - Median lethal dose

LOAEL - Lowest Observed Adverse Effect Level

N.O.S. - Not Otherwise Specified

NOAEC - No-Observed Adverse Effect Concentration

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NOAEL - No-Observed Adverse Effect Level

NOEC - No-Observed Effect Concentration

vPvB - Very Persistent and Very Bioaccumulative

WGK - Water Hazard Class

VOC - Volatile Organic Compounds

SDS - Safety Data Sheet

RID - Regulations concerning the International Carriage of Dangerous Goods by Rail

REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation

(EC) No 1907/2006

PNEC - Predicted No-Effect Concentration

PBT - Persistent Bioaccumulative Toxic

OEL - Occupational Exposure Limit

OECD - Organisation for Economic Co-operation and Development

COD - Chemical oxygen demand (COD)

ThOD - Theoretical oxygen demand (ThOD)

TRGS - Technical Rules for Hazardous Substances

TLM - Median Tolerance Limit

STP - Sewage treatment plant

None.

Other information

Full text of H-statements:		
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4	
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Acute Tox. Not classified (Dermal)	Acute toxicity (dermal) Not classified	
Acute Tox. Not classified (Oral)	Acute toxicity (oral) Not classified	
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3	
Carc. 2	Carcinogenicity, Category 2	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A	
Flam. Liq. Not classified	Flammable liquids Not classified	
Resp. Sens. 1	Respiratory sensitisation, Category 1	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
Skin Sens. 1	Skin sensitisation, Category 1	
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2	
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	
H302	Harmful if swallowed	
H315	Causes skin irritation	
H317	May cause an allergic skin reaction	
H319	Causes serious eye irritation	
H332	Harmful if inhaled	
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled	
H335	May cause respiratory irritation	
H351	Suspected of causing cancer	

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Full text of H-statements:	
H373	May cause damage to organs through prolonged or repeated exposure
H412	Harmful to aquatic life with long lasting effects

SDS_UN_Hilti

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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