Safety data sheet
complying with Regulation 1907/2006/EC (REACH Regulation), EU 2020/878 and Regulation No 1272/2008/EC (CLP)

Printing date 13.07.2023 Version number 2 (replaces version 1) Revision: 13.07.2023

*
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: KLB-SYSTEM PU-BETON 4080 Kopfsiegel Component B
Chemical Identification: diphenylmethane diisocyanate,isomeres and homologues
CAS Number:
9016-87-9
EC number:
618-498-9

1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.
Application of the substance / the mixture:
Epoxid coating
Hardening agent

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
PENETRON HELLAS S.A. G.E.MH. No: 07278001000
50, THRAKOMAKEDONON AV., 136 79 ACHARNES, GREECE
TEL.: +30 210 2448250 - FAX: + 30 210 2476803
Email: info@penetron.gr Site: www.penetron.gr

1.4 Emergency telephone number:

European Emergency Tel.: 112

*
SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation EC No 1272/2008 CLP:

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.
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

GHS07

Acute Tox. 4 H332 Harmful if inhaled.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H335 May cause respiratory irritation.

2.2 Label elements

Labelling according to Regulation EC No 1272/2008 CLP:
The substance is classified and labelled according to the CLP regulation.

(Contd. on page 2)

Safety data sheet
complying with Regulation 1907/2006/EC (REACH Regulation), EU 2020/878 and Regulation No 1272/2008/EC (CLP)

Printing date 13.07.2023 Version number 2 (replaces version 1) Revision: 13.07.2023

Trade name: KLB-SYSTEM PU-BETON 4080 Kopfsiegel Component B

(Contd. of page 1)

Hazard pictograms:

GHS07 GHS08

Signal word: Danger

Hazard-determining components of labelling:
diphenylmethane diisocyanate,isomeres and homologues

Hazard statements:
H332 Harmful if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Additional information:
EUH204 Contains isocyanates. May produce an allergic reaction.
As from 24 August 2023 adequate training is required before industrial or professional use.
2.3 Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

*
SECTION 3: Composition/information on ingredients

3.1 Substances
CAS No. Description
CAS: 9016-87-9 diphenylmethane diisocyanate,isomeres and homologues - 100% w/w
Identification number(s)
EC number: 618-498-9
Specific concentration limits
Eye Irrit. 2; H319: C ≥ 5 %
Skin Irrit. 2; H315: C ≥ 5 %
Resp. Sens. 1; H334: C ≥ 0.1 %
STOT SE 3; H335: C ≥ 5 %

(Contd. on page 3)

Safety data sheet
complying with Regulation 1907/2006/EC (REACH Regulation), EU 2020/878 and Regulation No 1272/2008/EC (CLP)

Printing date 13.07.2023 Version number 2 (replaces version 1) Revision: 13.07.2023

Trade name: KLB-SYSTEM PU-BETON 4080 Kopfsiegel Component B

(Contd. of page 2)

SECTION 4: First aid measures

4.1 Description of first aid measures
General information:
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Seek immediate medical advice.
After inhalation:
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
After skin contact: Clean with water and soap. If possible, also wash with polyethylene glycol 400.
After eye contact:
Immediately rinse the eyes with plenty of water, alternately lifting the upper and lower eyelids.
Check and remove contact lenses if any.
Continue to rinse.
In case of continued irritation, consult a doctor.
Avoid strong water jet-risk of cornea damage, consult a doctor.
After swallowing:
Drink plenty of water and provide fresh air. Call for a doctor immediately.
Consult the doctor immediately and show the label or this Safety Data Sheet.
Never give anything by mouth to an unconscious person.
4.2 Most important symptoms and effects, both acute and delayed
No further relevant information available.
4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents:

CO_2, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents: Water
5.2 Special hazards arising from the substance or mixture No further relevant information available.
5.3 Advice for firefighters
Protective equipment:
Self contained breathing apparatus and full protective clothing must be worn in case of fire.
Additional information
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
Avoid contact with skin and eyes.
Avoid inhalation of vapors.
6.1.1 For non-emergency personnel Avoid contact with dripping or leaking material

(Contd. on page 4)

Safety data sheet
complying with Regulation 1907/2006/EC (REACH Regulation), EU 2020/878 and Regulation No 1272/2008/EC (CLP)

Printing date 13.07.2023 Version number 2 (replaces version 1) Revision: 13.07.2023

Trade name: KLB-SYSTEM PU-BETON 4080 Kopfsiegel Component B

(Contd. of page 3)

6.1.2 For emergency responders
First-aid responders must wear protectice clothing, gloves, goggles and respiratory device with filter type A.
6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
6.3 Methods and material for containment and cleaning up:
It is collected with liquid absorbent materials (vermiculite, sand, pyrite deposits, sawdust).
Dispose contaminated material as waste according to section 13.
6.4 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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Open and handle receptacle with care.
Avoid contact with skin, eyes and clothing.
Ensure good ventilation.
Do not eat, drink or smoke when using this product.
Wash contaminated clothes before reusing them.
Wash your hands and face after using the product.
Information about fire - and explosion protection: No special measures required.
7.2 Conditions for safe storage, including any incompatibilities
Storage: Store in tightly closed containers, in a cool and dry place with good ventilation.
Requirements to be met by storerooms and receptacles:
Store in a cool and dry place.
Store in original container.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: Keep container tightly sealed.
7.3 Specific end use(s) No further relevant information available.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:	
CAS: 9016-87-9 diphenylmethane diisocyanate,isomeres and homologues	
WEL (Great Britain)	Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³ Sen; as -NCO

8.2 Exposure controls

8.2.1. Appropriate engineering controls No other recommendations, see chapter 7.

Individual protection measures, such as personal protective equipment
General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not eat, drink or smoke while using the product.
Remove contaminated clothes and wash before reusing them.

(Contd. on page 5)

Safety data sheet
complying with Regulation 1907/2006/EC (REACH Regulation), EU 2020/878 and Regulation No 1272/2008/EC (CLP)

Printing date 13.07.2023 Version number 2 (replaces version 1) Revision: 13.07.2023

Trade name: KLB-SYSTEM PU-BETON 4080 Kopfsiegel Component B

(Contd. of page 4)

Do not breathe vapours or mists.
Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Filter A
Hand protection

Protective gloves resistant to chemicals (standard EN 374-1)

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Material of gloves
Butyl rubber, BR - 0,7 mm
Nitrile rubber, NBR- 0,4 mm
Chemical resistant gloves Viton
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 mixture 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.
The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.
Eye/face protection

Tightly sealed goggles (EN 166).

Body protection:

Protective work clothing

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
General Information

Physical state	Liquid
Colour:	brown
Odour:	Characteristic
Odour threshold:	Not determined
Melting point/freezing point:	-30 °C
Boiling point or initial boiling point and boiling range	300 °C
Flammability	Not applicable

(Contd. on page 6)

Safety data sheet
complying with Regulation 1907/2006/EC (REACH Regulation), EU 2020/878 and Regulation No 1272/2008/EC (CLP)

Printing date 13.07.2023 Version number 2 (replaces version 1) Revision: 13.07.2023

Trade name: KLB-SYSTEM PU-BETON 4080 Kopfsiegel Component B

(Contd. of page 5)

Lower and upper explosion limit	
Lower:	Not determined
Upper:	Not determined
Flash point:	204 °C
Auto-ignition temperature:	Not specified
Decomposition temperature:	Not determined
pH	Not determined
Viscosity:	
Kinematic viscosity	Not determined
Dynamic at 20 °C:	100 mPas (DIN EN ISO 3219)
Solubility	
water:	Hydrolised.
Partition coefficient n-octanol/water (log value)	Not determined
Vapour pressure at 25 °C:	0.0001 hPa
Density and/or relative density	
Density at 20 °C:	1.23 g/cm³ (DIN EN ISO 2811-2)
Relative density	Not determined
Vapour density	Not determined

9.2 Other information

Appearance:	
Form:	Liquid
Important information on protection of health and environment, and on safety.	
Ignition temperature:	Not determined.
Explosive properties:	Product does not present an explosion hazard.
Cloud point / clarification point:	
Oxidising properties	Not oxidising
Evaporation rate	Not determined

Information with regard to physical hazard classes

Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

(Contd. on page 7)

Safety data sheet
complying with Regulation 1907/2006/EC (REACH Regulation), EU 2020/878 and Regulation No 1272/2008/EC (CLP)

Printing date 13.07.2023 Version number 2 (replaces version 1) Revision: 13.07.2023

Trade name: KLB-SYSTEM PU-BETON 4080 Kopfsiegel Component B

(Contd. of page 6)

SECTION 10: Stability and reactivity

10.1 Reactivity Stable under normal conditions
10.2 Chemical stability Material is stable under normal conditions.
Thermal decomposition / conditions to be avoided Stable at environment temperature.
10.3 Possibility of hazardous reactions
Reacts with alcohols.
Reacts violently with water.
Reacts with strong acids.
Exothermic polymerisation
10.4 Conditions to avoid No further relevant information available.
10.5 Incompatible materials No further relevant information available.
10.6 Hazardous decomposition products Irritant gases/vapours

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SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
Acute toxicity Harmful if inhaled.

LD/LC50 values relevant for classification:		
ATE (Acute Toxicity Estimates)		
Inhalative	LC50/4 h (vapour)	11 mg/l

CAS: 9016-87-9 diphenylmethane diisocyanate,isomeres and homologues		
Oral	LD50	>10,000 mg/kg (rat)
Dermal	LD50	>10,000 mg/kg (rabbit)

Skin corrosion/irritation Causes skin irritation.
Serious eye damage/irritation Causes serious eye irritation.
Respiratory or skin sensitisation
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
Germ cell mutagenicity Based on available data, the classification criteria are not met.
Carcinogenicity
Carcinogen, Category 2
Suspected of causing cancer.
Reproductive toxicity Based on available data, the classification criteria are not met.
STOT-single exposure
The product is classified as Specific Target Organ Toxicity after single exposure Category 3
May cause respiratory irritation.
STOT-repeated exposure
STOT Repeated Exposure Category 2
May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard Based on available data, the classification criteria are not met.
Additional toxicological information:
Sensitisation Sensitization possible through skin contact
CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
Carc. 2

(Contd. on page 8)

Safety data sheet
complying with Regulation 1907/2006/EC (REACH Regulation), EU 2020/878 and Regulation No 1272/2008/EC (CLP)

Printing date 13.07.2023 Version number 2 (replaces version 1) Revision: 13.07.2023

Trade name: KLB-SYSTEM PU-BETON 4080 Kopfsiegel Component B

(Contd. of page 7)

11.2 Information on other hazards

Endocrine disrupting properties
Substance is not listed.

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SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:	
CAS: 9016-87-9 diphenylmethane diisocyanate,isomeres and homologues	
EC50(24h)	>1.000 mg/l (Daphnia)
LC50(96h)	>1.000 mg/l (Brachydanio rerio)
NOEC(21d)	>10 mg/l (Daphnia)

12.2 Persistence and degradability No further relevant information available.
12.3 Bioaccumulative potential No further relevant information available.
12.4 Mobility in soil No further relevant information available.
12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
12.6 Endocrine disrupting properties
The product does not contain substances with endocrine disrupting properties.
12.7 Other adverse effects No further relevant information available.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods
Recommendation

Dispose according to National Regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact manufacturer for recycling information.
Waste disposal key:
08 04 09 - waste adhesives and sealants containing organic solvents or other dangerous substances.

European waste catalogue	
HP4	Irritant - skin irritation and eye damage
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP7	Carcinogenic
HP13	Sensitising

Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.

(Contd. on page 9)

Safety data sheet
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Printing date 13.07.2023 Version number 2 (replaces version 1) Revision: 13.07.2023

Trade name: KLB-SYSTEM PU-BETON 4080 Kopfsiegel Component B

(Contd. of page 8)

SECTION 14: Transport information

14.1 UN number or ID number	Unenforceable. Not classified as dangerous for transport.
ADR, ADN, IMDG, IATA	Void
14.2 UN proper shipping name	
ADR, ADN, IMDG, IATA	Void
14.3 Transport hazard class(es)	
ADR, ADN, IMDG, IATA	
Class	Void
14.4 Packing group	
ADR, IMDG, IATA	Void
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user	Not applicable.
14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
UN "Model Regulation":	Void

*
SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
REACH Regulation 1907/2006/EC
Regulation (EU) 2020/878
CLP Regulation 1272/2008/EC
Directive 98/24/EC on the protection of health and safety of workers from the risks related to chemicals agents at work.
Council Directive 94/33/EC on the protection of young people at work, as ammended.
Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding, as ammended

Directive 2012/18/EU
Named dangerous substances - ANNEX I
None of the ingredients is listed.
The substance is not included in Annex I.
REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

Substance is not listed.

REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

Substance is not listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

Substance is not listed.

Regulation (EC) No 273/2004 on drug precursors

Substance is not listed.

(Contd. on page 10)

Safety data sheet
complying with Regulation 1907/2006/EC (REACH Regulation), EU 2020/878 and Regulation No 1272/2008/EC (CLP)

Printing date 13.07.2023 Version number 2 (replaces version 1) Revision: 13.07.2023

Trade name: KLB-SYSTEM PU-BETON 4080 Kopfsiegel Component B

(Contd. of page 9)

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

Substance is not listed.

National regulations:

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57

The substance is not SVHC.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

*
SECTION 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.

Training hints

Suitable training on safety in handling, storing and converting the product should be given to the employees based on all the existing information.

Classification according to Regulation (EC) No 1272/2008 -

Department issuing SDS:

SUSTCHEM S.A.
REACH & Chemical Services Department
A: 144, 3rd Septemvriou, GR 112 51 | Athens, Greece
T: +30 210 8252510 | F: +30 210 8252575
W: www.sustchem.gr | E: info@suschem.gr

Version number of previous version: 1

Abbreviations and acronyms:

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
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Resp. Sens. 1: Respiratory sensitisation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

*** Data compared to the previous version altered.**