

Safety data sheet
complying with Regulation 1907/2006/EC (REACH Regulation), EU
2015/830 and Regulation No 1272/2008/EC (CLP)

Printing date 31.01.2018

Version number 1

Revision: 31.01.2018

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name:** EP 652 W Komponente B**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:

Epoxy coating

Hardening agent/ Curing 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:**

GHS05 corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements**Labelling according to Regulation EC No 1272/2008 CLP:**

The product is classified and labelled according to the CLP regulation.

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Hazard pictograms:

GHS05 GHS07

Signal word: Danger**Hazard-determining components of labelling:**

Benzyl alcohol
 m-phenylenebis(methylamine)
 3-aminomethyl-3,5,5-trimethylcyclohexylamine
 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Hazard statements:

H302+H332 Harmful if swallowed or if inhaled.
 H314 Causes severe skin burns and eye damage.
 H317 May cause an allergic skin reaction.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****3.2 Chemical characterisation: Mixtures****Description:** Mixture: consisting of the following components.**Ingredients according Regulation (EU) 830/2015:**

CAS: 100-51-6 EINECS: 202-859-9 Index number: 603-057-00-5 Reg.nr.: 01-2119492630-38-XXXX	Benzyl alcohol ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332	25-50%
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CAS: 1477-55-0 EINECS: 216-032-5 Reg.nr.: 01-2119480150-50-XXXX	m-phenylenebis(methylamine) ⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317; Aquatic Chronic 3, H412	10-<25%
CAS: 2855-13-2 EINECS: 220-666-8 Index number: 612-067-00-9 Reg.nr.: 01-2119514687-32-XXXX	3-aminomethyl-3,5,5-trimethylcyclohexylamine ⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	10-<25%
CAS: 38294-64-3 NLP: 500-101-4 Reg.nr.: 01-2119965165-33-XXXX	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine ⚠ Skin Corr. 1A, H314; ⚠ Skin Sens. 1, H317; Aquatic Chronic 3, H412	10-<25%

SECTION 4: First aid measures**4.1 Description of first aid measures****General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:

Remove the victim into fresh air.

In case of unconsciousness place patient stably in side position for transportation.

Seek medical treatment in case of complaints.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

In case of skin irritation, consult a physician.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

Remove contact lenses and continue rinsing for several minutes

Avoid strong water jet-risk of cornea damage, consult a doctor.

After swallowing:

Rinse mouth and drink plenty of water.

Consult a physician or poison control center.

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: CO₂, powder or water spray. Fight larger fire with foam.

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.

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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.

6.1.2 For emergency responders

First-aid responders must wear protective clothing, gloves, goggles and respiratory device.

6.2 Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

Do not allow to penetrate the ground/soil.

Inform respective authorities in case of seepage into water course or sewage system.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material: (sand, diatomite, acid binders, universal binders and sawdust).

Dispose contaminated material as waste according to item 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

Ensure good ventilation.

Do not breathe vapor or mist.

Information about fire - and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Storage: Store in cool, dry conditions in well sealed receptacles.

Requirements to be met by storerooms and receptacles: Prevent any seepage into the ground.

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.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

DNEL Workers Acute/short term exposure systemic effects

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700), CAS

Number: 25068-38-6

8.3 mg/kg bw/day - Dermal Exposure

12.25 mg/m³ - Inhalation Exposure

DNEL Workers Long term exposure systemic effects

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reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700), CAS
 Number: 25068-38-6

8.3 mg/kg bw/day - Dermal Exposure

12.25 mg/m³ - Inhalation Exposure**DNEL Consumers Acute/Short term exposure systemic effects**

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700), CAS
 Number: 25068-38-6

0.75 mg/kg bw/day³ - Oral Exposure

3.6 mg/kg bw/day - Dermal Exposure

0.75 mg/kg bw/day - Inhalation Exposure

DNEL Consumers Long-term exposure systemic effects

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700), CAS
 Number: 25068-38-6

0.75 mg/kg bw/day³ - Oral Exposure

3.6 mg/kg bw/day - Dermal Exposure

0.75 mg/kg bw/day - Inhalation Exposure

8.2 Exposure controls**8.2.1. Appropriate engineering controls**

Take appropriate protective measures with regard to the handling of chemicals and mixtures.

Personal protective equipment**General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Avoid contact with the eyes and skin.

Be sure to clean skin thoroughly after work and before breaks.

Remove contaminated clothing and protective equipment before entering eating areas.

Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

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 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.

Butyl rubber, BR, Nitrile rubber, NBR

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Penetration time of glove material

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

Eye protection:

Tightly sealed goggles

Body protection:

Protective work clothing

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****General Information****Appearance:**

Form:	Paste
Colour:	Light yellow
Odour:	Amine-like
Odour threshold:	Not determined

pH value: Not determined

Initial boiling point and boiling range: 205 °C

Flash point: >100 °C

Flammability (solid, gas): Not applicable

Auto-ignition temperature: 435 °C

Decomposition temperature: Not determined

Auto-ignition temperature: Product is not selfigniting.

Explosive properties: Product does not present an explosion hazard.

Explosion limits:

Lower: 1.3 Vol %

Upper: 13 Vol %

Vapour pressure at 20 °C: 0.1 hPa

Density at 20 °C: 1.06 g/cm³

Relative density: Not determined

Vapour density: Not determined

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Evaporation rate Not determined

Solubility in / Miscibility with water: Partly soluble.

Partition coefficient: n-octanol/water: Not determined

Viscosity:

Dynamic at 20 °C: 4,000 mPas

Kinematic: Not determined

9.2 Other information No further relevant information available.

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** No dangerous reactions known.**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**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Harmful if swallowed or if inhaled.

LD/LC50 values relevant for classification:**ATE (Acute Toxicity Estimates)**

Oral	LD50	>872-2,002 mg/kg
Dermal	LD50	>4,400-11,000 mg/kg
Inhalative	LC50/4 h (vapour)	>6.68-15.5 mg/l

100-51-6 Benzyl alcohol

Oral	LD50	1,230 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)
Inhalative	LC50/4 h (vapour)	8.8 mg/l (rat)

1477-55-0 m-phenylenebis(methylamine)

Oral	LD50	1,040 mg/kg (rat)
Inhalative	LC50/4 h (vapour)	2.4 mg/l (rat)

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Causes serious eye damage.

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Respiratory or skin sensitisation

May cause an allergic skin reaction.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**Germ cell mutagenicity** Based on available data, the classification criteria are not met.**Carcinogenicity** Based on available data, the classification criteria are not met.**Reproductive toxicity** Based on available data, the classification criteria are not met.**STOT-single exposure** Based on available data, the classification criteria are not met.**STOT-repeated exposure** Based on available data, the classification criteria are not met.**Aspiration hazard** Based on available data, the classification criteria are not met.**SECTION 12: Ecological information****12.1 Toxicity****Aquatic toxicity:**

100-51-6 Benzyl alcohol

EC50/72h 770 mg/l (algae (Algen))

LC50/48h 360 mg/l (Daphnia (Wasserfloh))

LC50/96 h 460 mg/l (Pimephales promelas (Goldelritze))

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

EC10 1120 mg/l (Pseudomonas putida)

EC50/48 h 23 mg/l (Daphnia (Wasserfloh))

2579-20-6 1,3-Cyclohexanedimethanamine

EC50/96 h 90 mg/l (Pseudomonas putida)

LC50/96 h 130 mg/l (Leuciscus idus (Goldorfe))

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.**Ecotoxicological effects:****Remark:** Toxic for fish**Additional ecological information:****General notes:**

Also poisonous for fish and plankton in water bodies.

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.

The product contains materials that are harmful to the environment.

12.5 Results of PBT and vPvB assessment**PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects** No further relevant information available.

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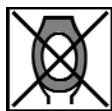
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SECTION 13: Disposal considerations**13.1 Waste treatment methods****Recommendation**

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.

Uncleaned packaging:**Recommendation:**

Disposal must be made according to official regulations.

Packaging may be reused or recycled after cleaning.

SECTION 14: Transport information**14.1 UN-Number****ADR, IMDG, IATA**

UN2735

14.2 UN proper shipping name**ADR**

2735 AMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine), ISOPHORONEDIAMINE)

IMDGAMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine), ISOPHORONEDIAMINE),
MARINE POLLUTANT**IATA**

AMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine), ISOPHORONEDIAMINE)

14.3 Transport hazard class(es)**ADR, IMDG****Class**

8 Corrosive substances.

Label

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IATA

Class	8 Corrosive substances.
Label	8
14.4 Packing group	II
ADR, IMDG, IATA	II
14.5 Environmental hazards:	Environmental Hazardous
Marine pollutant:	Yes
Special marking (ADR):	Symbol (fish and tree)
14.6 Special precautions for user	Symbol (fish and tree)
Danger code (Kemler):	Warning: Corrosive substances.
EMS Number:	86
Segregation groups	F-A,S-B
Stowage Category	Alkalis
Segregation Code	A
14.7 Transport in bulk according to Annex II of	SG35 Stow "separated from" acids.
Marpol and the IBC Code	Not applicable.

Transport/Additional information:**ADR**

Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
Transport category	2
Tunnel restriction code	E

IMDG

Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
UN "Model Regulation":	UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (M-PHENYLENEBIS(METHYLAMINE), ISOPHORONEDIAMINE), 8, II

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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) 2015/830

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 Substance is not listed.

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

National regulations:

Other regulations, limitations and prohibitive regulations

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

It doesn't contain substances of very high concern (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.

Relevant phrases

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled.

H412 Harmful to aquatic life with long lasting effects.

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.

Department issuing SDS:



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Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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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
ELINCS: European List of Notified 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 Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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