

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/13/2021

Version No. 9

Reviewed on 01/13/2021

1 Identification

- **Trade name:** UZIN PE 460 Comp. A
- **Application of the substance / the mixture** 2-Component Epoxy Primer (Component A)
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 Manufacturer:
 UZIN UTZ AG
 Dieselstrasse 3
 D-89079 Ulm
 Germany
 Tel.: +49 (0)731 4097-0
 Fax: +49 (0)731 4097-110

 Supplier:
 Uzin Utz North America, Inc.
 14509 E. 33rd. Place, Unit G
 Aurora, CO 80011
 Phone: +720-374-4810
 Toll-Free: +1 866-505-4810
 Fax: +1 720-374-2113
- **Information department:**
 Product safety department
 email: msds.info@uzin-utz.com
- **Emergency telephone number:**
 For Chemical Emergency Spill Leak Fire Exposure or Accident
 Call CHEMTREC Day or Night: DOMESTIC NORTH AMERICA 800-424-9300
 International, call +49 621 60 43 333

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS09 Environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.
 Eye Irrit. 2A H319 Causes serious eye irritation.
 Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements**
 The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07 GHS09

- **Signal word** Warning
- **Hazard-determining components of labeling:**
 Bisphenol-A-epoxy resin (average molecular weight ≤ 700)
 Bisphenol-F-epoxy resin (average molecular weight ≤ 700)

(Contd. on page 2)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/13/2021

Version No. 9

Reviewed on 01/13/2021

Trade name: UZIN PE 460 Comp. A

(Contd. of page 1)

alkyl C12-C14 glycidyl ether
1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane

· Hazard statements

Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
Toxic to aquatic life with long lasting effects.

· Precautionary statements

Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin: Wash with plenty of soap and water.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.

· Information pertaining to particular dangers for man and environment:

· NFPA ratings (scale 0 - 4)



Health = 2
Flammability = 1
Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 2
Flammability = 1
Reactivity = 0

· Other hazards

NFPA Rating Scale: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe.
NFPA is the National Fire Protection Association.
HMIS Rating Scale: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe.
HMIS®, the Hazardous Materials Identification System, is a registered mark of the National Paint and Coatings Association (NPCA).

· 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.

· Hazardous ingredients:

CAS: 1675-54-3	Bisphenol-A-epoxy resin (average molecular weight ≤ 700) ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; Aquatic Acute 2, H401	25-50%
CAS: 9003-36-5	Bisphenol-F-epoxy resin (average molecular weight ≤ 700) ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; Aquatic Acute 2, H401	25-50%
CAS: 68609-97-2	alkyl C12-C14 glycidyl ether ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	10-<20%
CAS: 17557-23-2	1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317; Flam. Liq. 4, H227	5-<10%

· Additional information:

The exact percentages of the ingredients have been withheld by the manufacturer as trade secrets.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/13/2021

Version No. 9

Reviewed on 01/13/2021

Trade name: UZIN PE 460 Comp. A

(Contd. of page 2)

For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** Allergic reactions
- **Indication of any immediate medical attention and special treatment needed**
Also observe SDS of component B.

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:** Mouth respiratory protective device.
- **Additional information:** Flash point: > 200°C (> 392°F).

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
- **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:

CAS: 1675-54-3	Bisphenol-A-epoxy resin (average molecular weight ≤ 700)	39 mg/m ³
----------------	--	----------------------

· PAC-2:

CAS: 1675-54-3	Bisphenol-A-epoxy resin (average molecular weight ≤ 700)	430 mg/m ³
----------------	--	-----------------------

· PAC-3:

CAS: 1675-54-3	Bisphenol-A-epoxy resin (average molecular weight ≤ 700)	2,600 mg/m ³
----------------	--	-------------------------

US

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/13/2021

Version No. 9

Reviewed on 01/13/2021

Trade name: UZIN PE 460 Comp. A

(Contd. of page 3)

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
 Wear suitable protective clothing, gloves and eye/face protection.
 Immediately remove all soiled and contaminated clothing.
 Avoid contact with the eyes and skin.
 Keep away from foodstuffs, beverages and feed.
 Prevent formation of aerosols.
 Wash hands before breaks and at the end of work.
- **Information about protection against explosions and fires:** No special measures required.
- **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.
 Protect from humidity and water.
 Protect from frost.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
 The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 Immediately remove all soiled and contaminated clothing.
 Avoid contact with the eyes and skin.
 Wear suitable protective clothing, gloves and eye/face protection.
 Keep away from foodstuffs, beverages and feed.
 Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not necessary. Ensure that room is well-ventilated during processing.
- **Protection of hands:**



Use gloves of stable material (e.g. Nitrile) - if necessary tricoted to improve the wearability.

- **Material of gloves**
 Butyl rubber, BR
 Nitrile rubber, NBR
 Recommended thickness of the material: ≥ 0.5 mm
- **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.
 At least 480 minutes.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/13/2021

Version No. 9

Reviewed on 01/13/2021

Trade name: UZIN PE 460 Comp. A

(Contd. of page 4)

· **Eye protection:**

Tightly sealed goggles or face protection

9 Physical and chemical properties

· **Information on basic physical and chemical properties**· **General Information**· **Appearance:**

Form:	Fluid
Color:	Blue
Odor:	Weak, characteristic
Odor threshold:	Not determined.

· **pH-value:** Not determined.· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

· **Flash point:** >100 °C (>212 °F)· **Flammability (solid, gaseous):** Not applicable.· **Ignition temperature:** >200 °C (>392 °F)· **Decomposition temperature:** Not determined.· **Auto igniting:** Product is not selfigniting.· **Danger of explosion:** Product does not present an explosion hazard.· **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

· **Vapor pressure:** Not determined.· **Density at 20 °C (68 °F):** 1.1 g/cm³ (9.18 lbs/gal)· **Relative density** Not determined.· **Vapor density** Not determined.· **Evaporation rate** Not determined.· **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix.

· **Partition coefficient (n-octanol/water):** Not determined.· **Viscosity:**

Dynamic at 20 °C (68 °F):	400 mPas
Kinematic:	Not determined.

· **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**

May produce violent reactions with bases and numerous organic substances including alcohols and amines.

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/13/2021

Version No. 9

Reviewed on 01/13/2021

Trade name: UZIN PE 460 Comp. A

(Contd. of page 5)

Exothermic polymerization.

· **Conditions to avoid** No further relevant information available.· **Incompatible materials:** No further relevant information available.· **Hazardous decomposition products:**

Irritant gases/vapors

At elevated temperatures hazardous decomposition products such as carbon dioxide, carbon monoxide, smoke or nitric oxides may be evolved.

11 Toxicological information

· **Information on toxicological effects**· **Acute toxicity:**· **Specific symptoms in biological assay:**· **Primary route(s) of entry:** Inhalation, skin contact, eye contact, ingestion.· **Primary irritant effect:**· **on the skin:** Irritant to skin and mucous membranes.· **on the eye:** Irritating effect.· **Sensitization:** Sensitization possible through skin contact.· **Additional toxicological information:**· **Carcinogenic categories**· **IARC (International Agency for Research on Cancer)**CAS: 1675-54-3 Bisphenol-A-epoxy resin (average molecular weight ≤ 700)

3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**· **Aquatic toxicity:**CAS: 1675-54-3 Bisphenol-A-epoxy resin (average molecular weight ≤ 700)

EC50/48h 1.8 mg/l (Daphnia magna)

EC50/72h 11 mg/l (Scenedesmus capricornutum)

LC50/96h 2 mg/l (Piscis)

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

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

Toxic for aquatic organisms

Also poisonous for fish and plankton in water bodies.

· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

(Contd. on page 7)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/13/2021

Version No. 9

Reviewed on 01/13/2021

Trade name: UZIN PE 460 Comp. A

(Contd. of page 6)

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**· **Recommendation:**

The product contains materials that are harmful to the environment.

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

Disposal should be in accordance with local, state or national legislation.

· **Uncleaned packagings:**· **Recommendation:**

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

14 Transport information

· **DOT, ADR, IMDG, IATA** UN3082· **UN proper shipping name**· **DOT**

Environmentally hazardous substance, liquid, n.o.s. (Epoxy resins)

· **ADR**

3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resins)

· **IMDG**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resins), MARINE POLLUTANT

· **IATA**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resins)

· **DOT**· **Class**

9 Miscellaneous dangerous substances and articles

· **Label**

9

· **IMDG, IATA**· **Class**

9 Miscellaneous dangerous substances and articles

· **Label**

9

· **DOT, IMDG, IATA**

III

· **Environmental hazards:**· **Marine pollutant:**

Yes

Symbol (fish and tree)

· **Special marking (ADR):**

Symbol (fish and tree)

· **Special marking (IATA):**

Symbol (fish and tree)

· **Special precautions for user** Warning: Miscellaneous dangerous substances and articles· **EMS Number:**

F-A,S-F

· **Stowage Category**

A

· **UN "Model Regulation":**

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESINS), 9, III

US

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/13/2021

Version No. 9

Reviewed on 01/13/2021

Trade name: UZIN PE 460 Comp. A

(Contd. of page 7)

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- SARA (Superfund Amendments and Reauthorization Act)

- **EPCRA Section 302 (Extremely Hazardous Substances):**

None of the ingredient is listed.

- **SARA Title III Section 313 (Toxic Release Inventory - TRI):**

None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

All components have the value ACTIVE.

- **Hazardous Air Pollutants**

None of the ingredients is listed.

- **Proposition 65 (California)**

- **Chemicals known to cause cancer:**

None of the ingredients is listed.

- **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.

- **Carcinogenicity categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **GHS label elements**

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

- **Hazard pictograms**



GHS07 GHS09

- **Signal word** Warning

- **Hazard-determining components of labeling:**

Bisphenol-A-epoxy resin (average molecular weight ≤ 700)Bisphenol-F-epoxy resin (average molecular weight ≤ 700)

alkyl C12-C14 glycidyl ether

1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane

- **Hazard statements**

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Toxic to aquatic life with long lasting effects.

- **Precautionary statements**

Avoid release to the environment.

(Contd. on page 9)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/13/2021

Version No. 9

Reviewed on 01/13/2021

Trade name: **UZIN PE 460 Comp. A**

(Contd. of page 8)

*Wear protective gloves/protective clothing/eye protection/face protection.**If on skin: Wash with plenty of soap and water.**If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**If skin irritation or rash occurs: Get medical advice/attention.**If eye irritation persists: Get medical advice/attention.*

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.

· **Contact:**

*Jim Muggleton**Phone: +1 720-374-4810**Mobile: +1 720-413-5454*

· **Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)**ICAO: International Civil Aviation Organisation**ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**DOT: US Department of Transportation**IATA: International Air Transport Association**ACGIH: American Conference of Governmental Industrial Hygienists**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**NIOSH: National Institute for Occupational Safety**OSHA: Occupational Safety & Health**TLV: Threshold Limit Value**PEL: Permissible Exposure Limit**REL: Recommended Exposure Limit**Flam. Liq. 4: Flammable liquids – Category 4**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A**Skin Sens. 1: Skin sensitisation – Category 1**Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2**Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2*

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

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/13/2021

Version No. 9

Reviewed on 01/13/2021

1 Identification

- **Trade name:** UZIN PE 460 Comp. B
- **Application of the substance / the mixture** 2-Component Epoxy Primer (Component B)
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 Manufacturer:
 UZIN UTZ AG
 Dieselstrasse 3
 D-89079 Ulm
 Germany
 Tel.: +49 (0)731 4097-0
 Fax: +49 (0)731 4097-110

 Supplier:
 Uzin Utz North America, Inc.
 14509 E. 33rd. Place, Unit G
 Aurora, CO 80011
 Phone: +720-374-4810
 Toll-Free: +1 866-505-4810
 Fax: +1 720-374-2113
- **Information department:**
 Product safety department
 email: msds.info@uzin-utz.com
- **Emergency telephone number:**
 For Chemical Emergency Spill Leak Fire Exposure or Accident
 Call CHEMTREC Day or Night: DOMESTIC NORTH AMERICA 800-424-9300
 International, call +49 621 60 43 333

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS05 Corrosion

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

Eye Dam. 1 H318 Causes serious eye damage.



GHS09 Environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

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

- **Label elements**

- **GHS label elements**

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

- **Hazard pictograms**



GHS05



GHS07



GHS09

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/13/2021

Version No. 9

Reviewed on 01/13/2021

Trade name: UZIN PE 460 Comp. B

(Contd. of page 1)

· **Signal word** *Danger*· **Hazard-determining components of labeling:**

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Phenol, styrenated

m-phenylenebis(methylamine)

Polyoxypropylenediamine

2,4,6-tris(dimethylaminomethyl)phenol

· **Hazard statements**

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Toxic to aquatic life with long lasting effects.

· **Precautionary statements**

Avoid release to the environment.

Wear protective gloves / eye protection / face protection.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Immediately call a poison center/doctor.

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

· **Information pertaining to particular dangers for man and environment:**· **NFPA ratings (scale 0 - 4)**

Health = 3

Flammability = 1

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = *3

Flammability = 1

Reactivity = 0

· **Other hazards**

NFPA Rating Scale: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe.

NFPA is the National Fire Protection Association.

HMIS Rating Scale: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe.

HMIS®, the Hazardous Materials Identification System, is a registered mark of the National Paint and Coatings Association (NPCA).

· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization:** *Mixtures*· **Description:** 2-Component Epoxy Primer (Component B)· **Hazardous ingredients:**

CAS: 61788-44-1	Phenol, styrenated	25-50%

(Contd. on page 3)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/13/2021

Version No. 9

Reviewed on 01/13/2021

Trade name: UZIN PE 460 Comp. B

(Contd. of page 2)

CAS: 2855-13-2	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-<20%
CAS: 1477-55-0	m-phenylenebis(methylamine) ⚠ Skin Corr. 1B, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317; Aquatic Acute 3, H402; Aquatic Chronic 3, H412	10-<20%
CAS: 9046-10-0	Polyoxypropylenediamine ⚠ Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 3, H402; Aquatic Chronic 3, H412	10-<20%
CAS: 112-53-8	Lauryl alcohol ⚠ Aquatic Acute 1, H400; Aquatic Chronic 2, H411; ⚠ Eye Irrit. 2A, H319	5-<10%
CAS: 90-72-2	2,4,6-tris(dimethylaminomethyl)phenol ⚠ Skin Corr. 1B, H314; Eye Dam. 1, H318; ⚠ Skin Sens. 1B, H317	3-<5%

· **Additional information:**

The exact percentages of the ingredients have been withheld by the manufacturer as trade secrets.
For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

· **Description of first aid measures**

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** Allergic reactions
- **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:** Mouth respiratory protective device.
- **Additional information:** Flash point: > 100°C (> 212°F).

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
- **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).

(Contd. on page 4)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/13/2021

Version No. 9

Reviewed on 01/13/2021

Trade name: **UZIN PE 460 Comp. B**

(Contd. of page 3)

Dispose contaminated material as waste according to item 13.

· **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:**

CAS: 112-53-8	Lauryl alcohol	12 mg/m ³
---------------	----------------	----------------------

· **PAC-2:**

CAS: 112-53-8	Lauryl alcohol	140 mg/m ³
---------------	----------------	-----------------------

· **PAC-3:**

CAS: 112-53-8	Lauryl alcohol	820 mg/m ³
---------------	----------------	-----------------------

7 Handling and storage

· **Handling:**

· **Precautions for safe handling**

Wear suitable protective clothing, gloves and eye/face protection.

Immediately remove all soiled and contaminated clothing.

Avoid contact with the eyes and skin.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

· **Information about protection against explosions and fires:** No special measures required.

· **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.

Protect from frost.

· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

CAS: 1477-55-0 m-phenylenebis(methylamine)

REL	Ceiling limit value: 0.1 mg/m ³ Skin
-----	--

TLV	Ceiling limit value: 0.1 mg/m ³ , 0.018 ppm Skin
-----	--

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing.

Avoid contact with the eyes and skin.

Wear suitable protective clothing, gloves and eye/face protection.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/13/2021

Version No. 9

Reviewed on 01/13/2021

Trade name: UZIN PE 460 Comp. B

(Contd. of page 4)

- **Respiratory protection:** Not necessary. Ensure that room is well-ventilated during processing.
- **Protection of hands:**



Use gloves of stable material (e.g. Nitrile) - if necessary tricoted to improve the wearability.

- **Material of gloves**

Butyl rubber, BR

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.5 mm

- **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 or face protection

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Fluid

Color: Yellowish

- **Odor:** Fish-like

- **Odor threshold:** Not determined.

- **pH-value at 20 °C (68 °F):** 11

- **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Undetermined.

- **Flash point:** > 100 °C (> 212 °F)

- **Flammability (solid, gaseous):** Not applicable.

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

- **Vapor pressure:** Not determined.

- **Density at 20 °C (68 °F):** 1.03 g/cm³ (8.6 lbs/gal)

- **Relative density** Not determined.

- **Vapor density** Not determined.

- **Evaporation rate** Not determined.

- **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix.

- **Partition coefficient (n-octanol/water):** Not determined.

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/13/2021

Version No. 9

Reviewed on 01/13/2021

Trade name: UZIN PE 460 Comp. B

(Contd. of page 5)

· **Viscosity:****Dynamic at 20 °C (68 °F):**

500 mPas

Kinematic:

Not determined.

· **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** Strong exothermic reaction with acids.· **Conditions to avoid** No further relevant information available.· **Incompatible materials:** No further relevant information available.· **Hazardous decomposition products:**

Corrosive gases/vapors

At elevated temperatures hazardous decomposition products such as carbon dioxide, carbon monoxide, smoke or nitric oxides may be evolved.

11 Toxicological information

· **Information on toxicological effects**· **Acute toxicity:**· **LD/LC50 values that are relevant for classification:****CAS: 2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine**

Oral LD50 1,030 mg/kg (rat) (OECD 401)

Dermal LD50 1,840 mg/kg (rabbit)

Inhalative LC50/4 h >5 mg/l (rat)

CAS: 1477-55-0 m-phenylenebis(methylamine)

Oral LD50 930 mg/kg (rat)

Dermal LD50 3,100 mg/kg (rabbit)

Inhalative LC50/4 h 1.34 mg/l (rat)

CAS: 112-53-8 Lauryl alcohol

Oral LD50 12,800 mg/kg (rat)

· **Specific symptoms in biological assay:**· **Primary route(s) of entry:** Inhalation, skin contact, eye contact, ingestion.· **Primary irritant effect:**· **on the skin:** Caustic effect on skin and mucous membranes.· **on the eye:** Strong caustic effect.· **Sensitization:** Sensitization possible through skin contact.· **Additional toxicological information:**· **Carcinogenic categories**· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

(Contd. on page 7)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/13/2021

Version No. 9

Reviewed on 01/13/2021

Trade name: UZIN PE 460 Comp. B

(Contd. of page 6)

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**· **Aquatic toxicity:****CAS: 112-53-8 Lauryl alcohol**LC50/96h >100 mg/l (*Leuciscus idus*)· **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.· **Ecotoxicological effects:**· **Remark:** Toxic for fish· **Additional ecological information:**· **General notes:**

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

Toxic for aquatic organisms

Also poisonous for fish and plankton in water bodies.

· **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:**

The product contains materials that are harmful to the environment.

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

Disposal should be in accordance with local, state or national legislation.

· **Uncleaned packagings:**· **Recommendation:**

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

14 Transport information

· **DOT, ADR, IMDG, IATA** UN2735· **UN proper shipping name**· **DOT**

Polyamines, liquid, corrosive, n.o.s. (Isophoronediamine, m-phenylenebis(methylamine))

· **ADR**

2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE, m-phenylenebis(methylamine)), ENVIRONMENTALLY HAZARDOUS

· **IMDG**

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

(Contd. on page 8)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/13/2021

Version No. 9

Reviewed on 01/13/2021

Trade name: UZIN PE 460 Comp. B

(Contd. of page 7)

· **IATA**

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

· **DOT**· **Class**

8 Corrosive substances

· **Label**

8

· **IMDG**· **Class**

8 Corrosive substances

· **Label**

8

· **IATA**· **Class**

8 Corrosive substances

· **Label**

8

· **DOT, IMDG, IATA**

II

· **Environmental hazards:**

Product contains environmentally hazardous substances: Phenol, styrenated

· **Marine pollutant:**

Yes

· **Special marking (ADR):**Symbol (fish and tree)
Symbol (fish and tree)· **Special precautions for user** Warning: Corrosive substances· **EMS Number:**

F-A,S-B

· **Segregation groups**

Alkalis

· **Stowage Category**

A

· **Segregation Code**

SG35 Stow "separated from" SGG1-acids

· **Transport/Additional information:**· **DOT**· **Remarks:**

Special marking with the symbol (fish and tree).

· **UN "Model Regulation":**

UN 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE, M-PHENYLENEBIS(METHYLAMINE)), 8, II, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**· **SARA (Superfund Amendments and Reauthorization Act)**· **EPCRA Section 302 (Extremely Hazardous Substances):**

None of the ingredient is listed.

· **SARA Title III Section 313 (Toxic Release Inventory - TRI):**

None of the ingredients is listed.

(Contd. on page 9)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/13/2021

Version No. 9

Reviewed on 01/13/2021

Trade name: UZIN PE 460 Comp. B

(Contd. of page 8)

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

All components have the value ACTIVE.

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65 (California)**· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **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.

· **Carcinogenicity categories**· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements**

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

· **Hazard pictograms**

GHS05

GHS07

GHS09

· **Signal word Danger**· **Hazard-determining components of labeling:**

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Phenol, styrenated

m-phenylenebis(methylamine)

Polyoxypropylenediamine

2,4,6-tris(dimethylaminomethyl)phenol

· **Hazard statements**

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Toxic to aquatic life with long lasting effects.

· **Precautionary statements**

Avoid release to the environment.

Wear protective gloves / eye protection / face protection.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Immediately call a poison center/doctor.

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

US

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/13/2021

Version No. 9

Reviewed on 01/13/2021

Trade name: **UZIN PE 460 Comp. B**

(Contd. of page 9)

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.

· **Contact:**

Jim Muggleton

Phone: +1 720-374-4810

Mobile: +1 720-413-5454

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

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

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1B: Skin sensitisation – Category 1B

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2

Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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