Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

E4E VBP Part A

Version number: 2.0
Replaces version of: 2025-06-23 (1)

Revision: 2025-07-02

SECTION 1: IDENTIFICATION

1.1 Product identifier

Name — **E4E VBP Part A**

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

Relevant identified uses — **general use**

1.3 Details of the supplier of the safety data sheet

Epoxy Depot. 2700 Cumberland Bldg 4. Lebanon. PA. 17042.
United States. . Telephone: *1-855-723-7699.* *e-mail: info@epoxydepotusa.com.*
Website: *Epoxydepotusa.com.*

1.4 Emergency telephone number

Emergency information service — **CHEMTREC: 1-800-535-5053**
This number is only available during the following office hours: Mon-Fri 12:00 AM - 11:59 PM

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard statement
A.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
A.3	serious eye damage/eye irritation	2	Eye Irrit. 2	H319
A.4S	skin sensitization	1	Skin Sens. 1	H317
A.6	carcinogenicity	2	Carc. 2	H351

For full text of abbreviations: see SECTION 16.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word warning

- Pictograms

GHS07, GHS08

- Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer.

- Precautionary statements

P201	Obtain special instructions before use.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear 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.
P308+P313	If exposed or concerned: Get medical advice/attention.
P321	Specific treatment (see on this label).
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.
P501	Dispose of contents/container to industrial combustion plant.

- Hazardous ingredients for labelling

Bisphenol A diglycidyl ether, Trimethylolpropane triacrylate, Phenol, polymer with formaldehyde, glycidyl ether

2.3 Other hazards

Hazards not otherwise classified

Contains epoxy constituents. May produce an allergic reaction.
Very toxic to aquatic life with long lasting effects (GHS category 1: aquatic toxicity - acute and/or chronic).

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0.1%.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0.1%.

SECTION 3: C OMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Bisphenol A diglycidyl ether	CAS No 25068-38-6	50 – < 75	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Skin Sens. 1 / H317	
Phenol, polymer with formaldehyde, glycidyl ether	CAS No 28064-14-4	10 – < 25	Skin Irrit. 2 / H315 Skin Sens. 1 / H317	
Trimethylolpropane triacrylate	CAS No 15625-89-5	1 – < 5	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Skin Sens. 1 / H317	

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
			Carc. 2 / H351	

Remarks

For full text of abbreviations: see SECTION 16

SECTION 4: FIRST-AID MEASURES

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO_2)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO_2)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

this information is not available

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Color	not determined
Particle	not relevant (liquid)
Odor	characteristic

Other safety parameters

pH (value)	not determined
Melting point/freezing point	not determined
Initial boiling point and boiling range	>390 °C at 1,013 hPa

Flash point	**not determined**
Evaporation rate	**not determined**
Flammability (solid, gas)	**not relevant,** (fluid)
Vapor pressure	**≤0.1 Pa at 20 °C**
Density	**not determined**
Vapor density	**this information is not available**
Relative density	**information on this property is not available**
Solubility(ies)	**not determined**

Partition coefficient

- n-octanol/water (log KOW)	**this information is not available**
Auto-ignition temperature	**385 °C**
Viscosity	**not determined**
Explosive properties	**none**
Oxidizing properties	**none**

9.2 Other information

Temperature class (USA, acc. to NEC 500)	**T2** (maximum permissible surface temperature on the equipment: 300°C)

SECTION 10: S TABILITY AND REACTIVITY

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

Oxidizers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Shall not be classified as acutely toxic.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitization

May cause an allergic skin reaction.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Suspected of causing cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

Name of substance	CAS No	Classification	Number
Trimethylolpropane triacrylate	15625-89-5	2B	

Legend

2B Possibly carcinogenic to humans

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Trimethylolpropane triacrylate	15625-89-5	LC50	0.87 $^{mg}/_{l}$	zebra fish (Danio rerio)	96 h
Trimethylolpropane triacrylate	15625-89-5	EC50	4.86 $^{mg}/_{l}$	green algae (Desmodesmus subspicatus)	96 h

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0.1%.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0.1%.

12.7 Other adverse effects

Data are not available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Only packagings which are approved (e.g. acc. to DOT) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

DOT	UN 3082
IMDG-Code	UN 3082
ICAO-TI	UN 3082

14.2 UN proper shipping name

DOT	Environmentally hazardous substance, liquid, n.o.s.

	IMDG-Code	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
	ICAO-TI	Environmentally hazardous substance, liquid, n.o.s.

14.3 Transport hazard class(es)

DOT	9
IMDG-Code	9
ICAO-TI	9

14.4 Packing group

DOT	III
IMDG-Code	III
ICAO-TI	III

14.5 Environmental hazards hazardous to the aquatic environment

14.6 Special precautions for user

There is no additional information.

14.7 Transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information

Particulars in the shipper's declaration	UN3082, Environmentally hazardous substance, liquid, n.o.s., 9, III
Danger label(s)	9, fish and tree

Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	8, 146, 173, 335, 441, IB3, T4, TP1, TP29
ERG No	171

International Maritime Dangerous Goods Code (IMDG) - Additional information

Marine pollutant	yes (hazardous to the aquatic environment) (Bisphenol A diglycidyl ether)
Danger label(s)	9, fish and tree

Special provisions (SP)	274, 335, 375, 969

Excepted quantities (EQ)	**E1**
Limited quantities (LQ)	**5 L**
EmS	**F-A, S-F**
Stowage category	**A**

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Environmental hazards	**yes** (hazardous to the aquatic environment)
Danger label(s)	**9, fish and tree**

Special provisions (SP)	**A97, A158, A197, A215**
Excepted quantities (EQ)	**E1**
Limited quantities (LQ)	**30 kg**

SECTION 15: REGULATORY INFORMATION

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

Industry or sector specific available guidance(s)

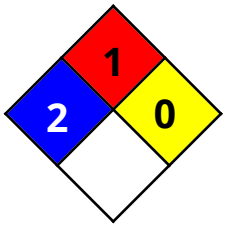
NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
Health	2	temporary or minor injury may occur
Flammability	1	material that must be preheated before ignition can occur
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).



15.2 **Chemical Safety Assessment**

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
1.1	Name: E4E VPB Part A	Name: E4E VBP Part A	yes

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
Carc.	Carcinogenicity
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DGR	Dangerous Goods Regulations (see IATA/DGR)
DOT	Department of Transportation (USA)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
ED	Endocrine disruptor
EmS	Emergency Schedule
ERG No	Emergency Response Guidebook - Number
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic

Abbr.	Descriptions of used abbreviations
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitization
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

E4E VBP Fast Cure Part B

Version number: 3.0
Replaces version of: 2025-07-02 (2)

Revision: 2025-07-02

SECTION 1: Identification

1.1 Product identifier

Trade name **E4E VBP Fast Cure Part B**

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

Relevant identified uses general use

Uses advised against Do not use for squirting or spraying. Do not use for products which come into direct contact with the skin.

1.3 Details of the supplier of the safety data sheet

Epoxy Depot 2700 Cumberland Bldg 4 Lebanon PA 17042
United States Telephone: **1-855-723-7699 e-mail: info@epoxydepotusa.com**
Website: **Epoxydepotusa.com**

1.4 Emergency telephone number

Emergency information service CHEMTREC: 1-800-535-5053
This number is only available during the following office hours: Mon-Fri 12:00 AM - 11:59 PM

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard statement
A.1O	acute toxicity (oral)	4	Acute Tox. 4	H302
A.2	skin corrosion/irritation	1	Skin Corr. 1	H314
A.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318
A.4S	skin sensitization	1	Skin Sens. 1	H317
A.7	reproductive toxicity	1B	Repr. 1B	H360FD
B.6	flammable liquid	4	Flam. Liq. 4	H227

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis. The product is combustible and can be ignited by potential ignition sources.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word danger

- Pictograms

GHS05, GHS07, GHS08 

- Hazard statements

H227	Combustible liquid.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H360FD	May damage fertility. May damage the unborn child.

- Precautionary statements

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dusts or mists.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves/eye protection/face protection.
P301+P330+P331	If swallowed: Rinse mouth. Do NOT induce vomiting.
P302+P352	If on skin: Wash with plenty of water.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
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.
P310	Immediately call a poison center/doctor.
P321	Specific treatment (see on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.
P403	Store in a well-ventilated place.
P405	Store locked up.
P501	Dispose of contents/container to industrial combustion plant.

- Hazardous ingredients for labelling: 1,2-Diaminocyclohexane, tetraethylenepentamine, Benzyl alcohol, 4-tert-butylphenol

2.3 Other hazards

This material is combustible, but will not ignite readily.

Hazards not otherwise classified

May be harmful in contact with skin (GHS category 5: acutely toxic - dermal).
May be harmful if inhaled (GHS category 5: acutely toxic - inhalation).
Toxic to aquatic life with long lasting effects (GHS category 2: aquatic toxicity - acute and/or chronic).

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0.1%.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0.1%.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Benzyl alcohol	CAS No 100-51-6	25 – < 50	Acute Tox. 4 / H302 Acute Tox. 4 / H332	
1,2-Diaminocyclohexane	CAS No 694-83-7	10 – < 25	Acute Tox. 4 / H302 Acute Tox. 4 / H312 Skin Corr. 1A / H314 Eye Dam. 1 / H318 Repr. 1B / H360FD STOT SE 3 / H335 Flam. Liq. 4 / H227	
2,4,6-tris[(dimethylamino)methyl]phenol	CAS No 90-72-2	10 – < 25	Acute Tox. 4 / H302 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319	
4-tert-butylphenol	CAS No 98-54-4	10 – < 25	Skin Irrit. 2 / H315 Eye Dam. 1 / H318 Repr. 2 / H361f	
tetraethylenepentamine	CAS No 112-57-2	5 – < 10	Acute Tox. 3 / H311 Skin Corr. 1 / H314 Eye Dam. 1 / H318 Skin Sens. 1 / H317	
bis(dimethylaminomethyl)phenol	CAS No 71074-89-0	1 – < 5	Acute Tox. 4 / H302 Acute Tox. 4 / H312 Skin Corr. 1C / H314 Eye Dam. 1 / H318 STOT SE 3 / H335	

Remarks

For full text of abbreviations: see SECTION 16

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO2)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

In case of insufficient ventilation and/or in use, may form flammable/explosive vapor-air mixture. Solvent vapors are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

Hazardous combustion products

Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO2)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Avoidance of ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only in well-ventilated areas. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

- Specific notes/details

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapors are heavier than air, spread along floors and form explosive mixtures with air. Vapors may form explosive mixtures with air.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Explosive atmospheres

Keep container tightly closed and in a well-ventilated place. Use local and general ventilation. Keep cool. Protect from sunlight.

- Flammability hazards

Keep away from sources of ignition - No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Protect from sunlight.

- Ventilation requirements

Use local and general ventilation. Ground/bond container and receiving equipment.

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)
this information is not available

Relevant DNELs of components

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Benzyl alcohol	100-51-6	DNEL	22 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Benzyl alcohol	100-51-6	DNEL	110 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
Benzyl alcohol	100-51-6	DNEL	8 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Benzyl alcohol	100-51-6	DNEL	40 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects
1,2-Diaminocyclohexane	694-83-7	DNEL	0.27 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
1,2-Diaminocyclohexane	694-83-7	DNEL	0.53 mg/m³	human, inhalatory	worker (industry)	acute - local effects
2,4,6-tris[(dimethylamino)methyl]phenol	90-72-2	DNEL	0.53 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
2,4,6-tris[(dimethylamino)methyl]phenol	90-72-2	DNEL	2.1 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
2,4,6-tris[(dimethylamino)methyl]phenol	90-72-2	DNEL	0.15 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
2,4,6-tris[(dimethylamino)methyl]phenol	90-72-2	DNEL	0.6 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects
4-tert-butylphenol	98-54-4	DNEL	0.5 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
4-tert-butylphenol	98-54-4	DNEL	0.071 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant PNECs of components

Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
Benzyl alcohol	100-51-6	PNEC	1 mg/l	aquatic organisms	freshwater	short-term (single instance)
Benzyl alcohol	100-51-6	PNEC	0.1 mg/l	aquatic organisms	marine water	short-term (single

Relevant PNECs of components

Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
						instance)
Benzyl alcohol	100-51-6	PNEC	39 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Benzyl alcohol	100-51-6	PNEC	5.27 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Benzyl alcohol	100-51-6	PNEC	0.527 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Benzyl alcohol	100-51-6	PNEC	0.456 mg/kg	terrestrial organisms	soil	short-term (single instance)
1,2-Diaminocyclohexane	694-83-7	PNEC	1.3 mg/l	aquatic organisms	freshwater	short-term (single instance)
1,2-Diaminocyclohexane	694-83-7	PNEC	0.13 mg/l	aquatic organisms	marine water	short-term (single instance)
1,2-Diaminocyclohexane	694-83-7	PNEC	29.1 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
1,2-Diaminocyclohexane	694-83-7	PNEC	202.3 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
1,2-Diaminocyclohexane	694-83-7	PNEC	20.2 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
1,2-Diaminocyclohexane	694-83-7	PNEC	3.52 mg/kg	terrestrial organisms	soil	short-term (single instance)
2,4,6-tris[(dimethylamino)methyl]phenol	90-72-2	PNEC	0.046 mg/l	aquatic organisms	freshwater	short-term (single instance)
2,4,6-tris[(dimethylamino)methyl]phenol	90-72-2	PNEC	0.005 mg/l	aquatic organisms	marine water	short-term (single instance)
2,4,6-tris[(dimethylamino)methyl]phenol	90-72-2	PNEC	0.2 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
2,4,6-tris[(dimethylamino)methyl]phenol	90-72-2	PNEC	0.262 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
2,4,6-tris[(dimethylamino)methyl]phenol	90-72-2	PNEC	0.026 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
2,4,6-tris[(dimethylamino)methyl]phenol	90-72-2	PNEC	0.025 mg/kg	terrestrial organisms	soil	short-term (single instance)
4-tert-butylphenol	98-54-4	PNEC	0.01 mg/l	aquatic organisms	freshwater	short-term (single instance)
4-tert-butylphenol	98-54-4	PNEC	0.001 mg/l	aquatic organisms	marine water	short-term (single instance)
4-tert-butylphenol	98-54-4	PNEC	1.5 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
4-tert-butylphenol	98-54-4	PNEC	0.27 mg/kg	aquatic organisms	freshwater sediment	short-term (single

Relevant PNECs of components						
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
						instance)
4-tert-butylphenol	98-54-4	PNEC	0.027 $^{mg}/_{kg}$	aquatic organisms	marine sediment	short-term (single instance)
4-tert-butylphenol	98-54-4	PNEC	0.25 $^{mg}/_{kg}$	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Color	not determined
Particle	not relevant (liquid)
Odor	characteristic

Other safety parameters

pH (value)	not determined
Melting point/freezing point	not determined
Initial boiling point and boiling range	191.4 °C at 1,013 hPa
Flash point	70 °C at 101.5 kPa
Evaporation rate	not determined
Flammability (solid, gas)	not relevant, (fluid)

Explosive limits

- Lower explosion limit (LEL)	0.8 vol%
- Upper explosion limit (UEL)	4.6 vol%
Vapor pressure	51.6 Pa at 20 °C
Density	not determined
Vapor density	this information is not available
Relative density	information on this property is not available
Solubility(ies)	not determined

Partition coefficient

- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	321 °C (auto-ignition temperature (liquids and gases))
Viscosity	not determined
Explosive properties	none
Oxidizing properties	none

9.2 Other information

Liquid content	90.12 %
Solid content	10.51 %
Temperature class (USA, acc. to NEC 500)	T2 (maximum permissible surface temperature on the equipment: 300°C)

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Risk of ignition.

If heated:

Risk of ignition

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints to prevent fire or explosion

Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

10.5 Incompatible materials

Oxidizers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Harmful if swallowed.
GHS of the United Nations, annex 4: May be harmful in contact with skin or if inhaled.

- Acute toxicity estimate (ATE)
Oral >1,228 $^{mg}/_{kg}$

Acute toxicity estimate (ATE) of components			
Name of substance	CAS No	Exposure route	ATE
Benzyl alcohol	100-51-6	oral	500 $^{mg}/_{kg}$
Benzyl alcohol	100-51-6	inhalation: vapor	11 $^{mg}/_{l}$/4h

Acute toxicity estimate (ATE) of components			
Name of substance	**CAS No**	**Exposure route**	**ATE**
Benzyl alcohol	100-51-6	inhalation: dust/mist	>4.178 $^{mg}/_{l}$/4h
1,2-Diaminocyclohexane	694-83-7	oral	1,170 $^{mg}/_{kg}$
1,2-Diaminocyclohexane	694-83-7	dermal	1,870 $^{mg}/_{kg}$
2,4,6-tris[(dimethylamino)methyl]phenol	90-72-2	oral	2,169 $^{mg}/_{kg}$
4-tert-butylphenol	98-54-4	oral	>2,000 $^{mg}/_{kg}$
tetraethylenepentamine	112-57-2	oral	3,990 $^{mg}/_{kg}$
tetraethylenepentamine	112-57-2	dermal	300 $^{mg}/_{kg}$
bis(dimethylaminomethyl)phenol	71074-89-0	oral	500 $^{mg}/_{kg}$
bis(dimethylaminomethyl)phenol	71074-89-0	dermal	1,100 $^{mg}/_{kg}$

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

May cause an allergic skin reaction.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

May damage the unborn child. May damage fertility.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components					
Name of substance	**CAS No**	**Endpoint**	**Value**	**Species**	**Exposure time**
Benzyl alcohol	100-51-6	LC50	≥100 $^{mg}/_{l}$	japanese ricefish/medaka (Oryzias latipes)	96 h
Benzyl alcohol	100-51-6	EC50	230 $^{mg}/_{l}$	daphnia magna	48 h
1,2-Diaminocyclohexane	694-83-7	LC50	1,825 $^{mg}/_{l}$	fathead minnow (Pimephales promelas)	96 h
1,2-Diaminocyclohexane	694-83-7	EC50	76 $^{mg}/_{l}$	algae	72 h
2,4,6-tris[(dimethyl-amino)methyl]phenol	90-72-2	LC50	>100 $^{mg}/_{l}$	common carp (Cyprinus caprio)	96 h
2,4,6-tris[(dimethyl-amino)methyl]phenol	90-72-2	EC50	>100 $^{mg}/_{l}$	daphnia magna	48 h
4-tert-butylphenol	98-54-4	LC50	>1 $^{mg}/_{l}$	rainbow trout (Onco-rhynchus mykiss)	96 h
4-tert-butylphenol	98-54-4	EC50	8.1 $^{mg}/_{l}$	daphnia magna	24 h

Aquatic toxicity (chronic) of components					
Name of substance	**CAS No**	**Endpoint**	**Value**	**Species**	**Exposure time**
Benzyl alcohol	100-51-6	LC50	770 $^{mg}/_{l}$	fathead minnow (Pimephales promelas)	1 h
Benzyl alcohol	100-51-6	EC50	65.5 $^{mg}/_{l}$	daphnia magna	21 d
1,2-Diaminocyclohexane	694-83-7	EC50	32 $^{mg}/_{l}$	daphnia magna	21 d
4-tert-butylphenol	98-54-4	EC50	2 $^{mg}/_{l}$	daphnia magna	21 d

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0.1%.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0.1%.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment-relevant information

Solvent reclamation/regeneration.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Only packagings which are approved (e.g. acc. to DOT) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number

DOT	UN 1760
IMDG-Code	UN 1760
ICAO-TI	UN 1760

14.2 UN proper shipping name

DOT	Corrosive liquid, n.o.s.
IMDG-Code	CORROSIVE LIQUID, N.O.S.
ICAO-TI	Corrosive liquid, n.o.s.

14.3 Transport hazard class(es)

DOT	8
IMDG-Code	8
ICAO-TI	8

14.4 Packing group

DOT	I
IMDG-Code	I
ICAO-TI	I

14.5 Environmental hazards

hazardous to the aquatic environment

Environmentally hazardous substance (aquatic environment): 4-tert-butylphenol

14.6 Special precautions for user

There is no additional information.

14.7 Transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information

Particulars in the shipper's declaration	UN1760, Corrosive liquid, n.o.s., 8, I, environmentally hazardous
Danger label(s)	8, fish and tree

Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	A7, B10, T14, TP2, TP27
ERG No	154

International Maritime Dangerous Goods Code (IMDG) - Additional information

Marine pollutant	yes (hazardous to the aquatic environment) (4-tert-butylphenol)
Danger label(s)	8, fish and tree

Special provisions (SP)	274
Excepted quantities (EQ)	E0
Limited quantities (LQ)	0
EmS	F-A, S-B
Stowage category	B

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Environmental hazards	yes (hazardous to the aquatic environment)
Danger label(s)	8

Special provisions (SP)	A3
Excepted quantities (EQ)	E0

SECTION 15: Regulatory information

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

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
Health	3	major injury likely unless prompt action is taken and medical treatment is given
Flammability	2	material that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	2	material that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur
Health	3	material that, under emergency conditions, can cause serious or permanent injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
1.1	Trade name: E4E VPB Fast Cure Part B	Trade name: E4E VBP Fast Cure Part B	yes

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
Acute Tox.	Acute toxicity

Abbr.	Descriptions of used abbreviations
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
DOT	Department of Transportation (USA)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
ED	Endocrine disruptor
EmS	Emergency Schedule
ERG No	Emergency Response Guidebook - Number
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
Repr.	Reproductive toxicity
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitization
STOT SE	Specific target organ toxicity - single exposure
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H227	Combustible liquid.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360FD	May damage fertility. May damage the unborn child.
H361f	Suspected of damaging fertility.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

E4E VPB FAST CURE

Technical Data Sheet

Product description
: A two component vapor barrier coating. Used as a primer and provides better adhesion. This will control moisture vapor emission rates up to 25 lb. /24 hr. /1000 square feet all while providing excellent physical and chemical resistance. This coating meets LEED standards.

Uses
: Formulated as a high solids system for classrooms, laboratories, mechanical rooms, areas of
light manufacturing, where cleanliness and easy maintenance are required.

Advantages
: ▪ Solvent-free, low VOC content100% solids
▪ Superior water resistance
▪ Good chemical and physical resistance
▪ Easy to clean

Part A	
VOC's	Low
Color	Clear
Viscocity	1110-1300

Part B	
VOC's	Low
Color	Amber
Viscocity	650-850

Application Data	
Mix Ratio	2A:1B
Packing	3-Gal kit
Application Temp	12° C- 28° C
Pot Life	45 min

Technical Properties		
Flammability	ASTM D-635	Self Extinguishing
Tensile Strength	ASTM D-638	5550 psi
Tensile Elongation %	ASTM D-638	20-30%
Compressive Strength	ASTM D-695	@24 hours 7500 @7 days 9800
Monolithic Surfacing	ASTM D-722	PASS
Impact Resistance	ASTM D-2794	PASS
Abrasion Resistance	ASTM D-4060	60 mg loss
Shore D Hardness	ASTM D-4366	80-90
Vapor Permeance @ 16 mils	ASTM E-96	0.71 g/(m²d) US Perm 0.06
MVER	ASTM F-186	18lb/24hr/1000 sq ft

FOR PROFESSIONAL USE ONLY!!

Cure Time	
Working Time	40-50 min
Tack Free	3-5 hours
Recoat Time	5-10 hours
Full Cure	7 days
Foot Traffic	8 hours
Suggested Coats	1-2

Surface Preparation: Surface must be clean, sound and dry. Prior to coating a floor all trowel marks and surface imperfections must be removed to produce a smooth & uniform surface. Proper surface preparation is critical to ensure an adequate chemical bond to substrate. Substrate must be dry and free of all wax, grease, oils, fats, soil, contaminants, loose or foreign matter and laitance. Concrete should be cleaned and prepared using a shot blast machine or adequate grinding equipment to achieve a CSP-3 to CSP-4 profile as per ICRI guidelines. Compressive strength of concrete should be at least 3,500 psi (24 Mpa) @ 28 days and at
least 215 psi (1.5 Mpa) in tension at time of product application

Mixing: Supplied in factory proportioned quantities, greatly reducing the risk of applicator error during mixing. Step 1 - Mechanically premix PART A (resin) with an appropriate slow speed drill equipped with a Jiffy Mixer, for 1 minute. Step 2 - Slowly empty entire content of PART B into container holding PARTA and continue to mix slowly for 3 minutes until uniform consistency in texture and color is achieved. Avoid unnecessary entrapment of air during mixing. Make sure to scrape walls and bottom of container with straight edged trowel at least once to ensure homogeneous mix. Make sure to empty ALL contents of PART B into PART A to avoid system weakening or incomplete curing. DO NOT MIX MORE MATERIAL THAN CAN BE APPLIED WITHIN WORKING TIME LIMITS.

Application: Should be applied at ambient and surface temperatures between 40- 95˚F and humidity below 80%. R MVB is applied with a rubber squeegee and back rolled with a 10mm lint-free nap roller (on smooth surfaces) to remove squeegee lines and smooth out coating. Additional coats may be applied when surface is tack-free (roughly 12 hours). Do not exceed first 24 post-application hours for recoating. By exceeding this 24 hour recoat time limit, the entire surface must be lightly sanded to achieve desired profile for a proper mechanical bond. Clean up all dust and debris created by aforementioned sanding prior to applying subsequent coat.

First aid: In case of contact with skin, wash thoroughly with water and soap. In case of eye contact, immediately rinse with water for at least 15 minutes. Consult with a doctor. For respiratory problems, transport victim to fresh air. Remove contaminated clothes and clean before reuse. Components A and B contain toxic ingredients. Prolonged contact of this product with the skin is susceptible to provoke an irritation. Avoid eye contact. Contact with may cause serious burns. Avoid breathing vapors release from this product. This product is a strong sensitizer. Wear safety glasses and chemical resistant gloves. A breathing apparatus filtering organic vapors approved by the NIOSH/MSHA is recommended. Predict suitable ventilation. Consult the material safety data sheet for further information.

Clean-up/Storage: Store in clean dry area. Do not freeze. Dispose in accordance with all state local and federal laws. Clean-up tools and equipment with xylene.

Important Notice: The recommendations and information contained in this document are based on reliable test results according to PPI. It is the responsibility of the user to validate the information therein and to test the product before using it. PPI assumes no legal responsibility for the results obtained in such cases. PPI assumes no legal responsibility for any direct, indirect, consequential, economic or any other damages except to replace the product or to reimbursement the purchase price, as set out in the purchase contract.

Limitations Prior to application, measure and confirm Substrate Moisture Content, Ambient and Surface temperatures and Dew Point. This coating cannot be used against hydrostatic pressure. Substrate Moisture: Moisture within substrate must be ≤4% by mass as measured by a type of concrete moisture meter on mechanically prepared surface. Do not add thinners or solvents to mix. Do not add water. Dispose of waste materials in accordance with government regulations. The use of safety glasses and protective gloves is required. In case of contact, flush areas with abundance of water for 20 minutes and seek medical assistance. Wash skin with soap and water. Use only in well ventilated areas AVOID CONDENSATION. The substrate must be at least 3˚C above Dew Point to reduce risk of condensation. Condensation may lead to failure in adhesion. Avoid situations where substrate temperature is considerably lower than ambient temperature