Printing date 05/21/2015 Reviewed on 05/21/2015

1 Identification

· Product identifier

· Trade name: ProBuild Slow Hardener

· Article number: 1856089-1

· Application of the substance / the mixture Epoxy curing agent

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Company Name: Axson USA, Inc.

Headquarters:

31200 Stephenson Hwy Madison Heights, MI 48071 USA

ehs-us@axson.com

· Information department: Product safety department

· Emergency telephone number:

During normal opening times: +1(248) 588-2270 Chemtec 24-hour Emergency: +1 (800) 424-9300

2 Hazard(s) identification

· Classification of the substance or mixture



GHS06 Skull and crossbones

Acute Tox. 3 H331 Toxic if inhaled.



GHS08 Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Repr. 2 H361 Suspected of damaging fertility or the unborn child.



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.



Skin Sens. 1 H317 May cause an allergic skin reaction. STOT SE 3 H335 May cause respiratory irritation.

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









GHS05

GHS06

GHS08 GHS09

· Signal word Danger

· Hazard-determining components of labeling:

Polyoxypropylenediamine

alpha-(2-Aminomethylethyl)-omega-(2-aminomethylethoxy)-poly(oxy(methyl-1,2-ethanediyl))

Teta, reaction products with propylene oxide

Polyoxylated Triethylenetetramine

bisphenol A

m-phenylenebis(*methylamine*)

· Hazard statements

Toxic if inhaled.

Causes severe skin burns and eye damage.

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

May cause an allergic skin reaction.

Suspected of damaging fertility or the unborn child.

May cause respiratory irritation.

Toxic to aquatic life with long lasting effects.

· Precautionary statements

Do not breathe dusts or mists.

Wear respiratory protection.

Wear protective gloves.

Wear eye protection / face protection.

Avoid release to the environment.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

IF ON SKIN (or hair): Remove/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.

Specific treatment (see on this label).

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Wash contaminated clothing before reuse.

IF exposed or concerned: Get medical advice/attention.

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

If swallowed: Rinse mouth. Do NOT induce vomiting.

Collect spillage.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/international regulations.

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(Contd. of page 2)

Safety Data Sheet acc. to OSHA HCS

Printing date 05/21/2015 Reviewed on 05/21/2015

Trade name: ProBuild Slow Hardener

· Classification system:

· NFPA ratings (scale 0 - 4)



Health = 3 Fire = 1Reactivity = 0

· HMIS-ratings (scale 0 - 4)



- · Other hazards
- · 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.

· Dangerous components:		
CAS: 9046-10-0	Polyoxypropylenediamine alpha-(2-Aminomethylethyl)-omega-(2-aminomethylethoxy)-poly(oxy(methyl-1,2-ethanediyl))	50 - 100%
CAS: 98-54-4 EINECS: 202-679-0	4-tert-butylphenol	5-<10%
CAS: 26950-63-0	Teta, reaction products with propylene oxide Polyoxylated Triethylenetetramine	5-<10%
CAS: 112-24-3 EINECS: 203-950-6	3,6-diazaoctanethylenediamin	1-<5%
CAS: 1477-55-0 EINECS: 216-032-5	m-phenylenebis(methylamine)	1-<5%
CAS: 25620-58-0 EINECS: 247-134-8	trimethylhexane-1,6-diamine	1-<5%
CAS: 111-40-0 EINECS: 203-865-4	2,2'-iminodiethylamine	1-<5%
CAS: 80-05-7 EINECS: 201-245-8	bisphenol A	1-<5%
CAS: 84852-15-3 EINECS: 284-325-5	4-nonylphenol, branched	0.25-<1%

4 First-aid measures

- · Description of first aid measures
- · General information:

Immediately remove any clothing soiled by the product.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

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(Contd. of page 3)

· After inhalation:

Supply fresh air or oxygen; call for doctor.

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

- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · 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.

- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

· Environmental precautions:

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

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).

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· 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.

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

- · Information about protection against explosions and fires: Keep respiratory protective device available.
- · 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.

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

(Contd. of page 4)

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:

112-24-3 3,6-diazaoctanethylenediamin

WEEL Long-term value: 6 mg/m³, 1 ppm Skin

111-40-0 2,2'-iminodiethylamine

REL Long-term value: 4 mg/m³, 1 ppm Skin TLV Long-term value: 4.2 mg/m³, 1 ppm Skin

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· Eye protection:

(Contd. of page 5)



Tightly sealed goggles

Physical and chemical proper		
Information on basic physical and chemical properties		
General Information		
Appearance:	** **	
Form: Color:	Liquid Amber colored	
Odor:	Amber Colorea Amine-like	
Odour threshold:	Not determined.	
pH-value:	Not determined.	
Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	230 °C (446 °F)	
Flash point:	94 °C (201 °F)	
Flammability (solid, gaseous):	Not applicable.	
Ignition temperature:	510 °C (950 °F)	
Decomposition temperature:	Not determined.	
Auto igniting:	Product is not selfigniting.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	0.7 Vol %	
Upper:	5.0 Vol %	
Vapor pressure:	Not determined.	
Density at 20 °C (68 °F):	0.96263 g/cm³ (8.033 lbs/gal)	
Relative density	Not determined.	
Vapour density	Not determined.	
Evaporation rate	Not determined.	
Solubility in / Miscibility with	N 1 11 100 1	
Water:	Not miscible or difficult to mix.	
Partition coefficient (n-octanol/wat	er): Not determined.	
Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Solvent content:	2.2.2	
Organic solvents:	0.0 %	

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· Other information

No further relevant information available.

10 Stability and reactivity

- · Reactivity
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

· LD/LC50 values that are relevant for classification:			
Γ	Oral	LD50	2880 mg/kg (rat)
l	Dermal	<i>LD50</i>	2980 mg/kg (rabbit)

9046-10-0 Polyoxypropylenediamine

alpha-(2-Aminomethylethyl)-omega-(2-aminomethylethoxy)-poly(oxy(methyl-1,2-ethanediyl))

Oral	LD50	2855 mg/kg (rabbit)
Dermal	LD50	2980 mg/kg (rabbit)

- · Primary irritant effect:
- · on the skin: Strong caustic effect on skin and mucous membranes.
- · on the eye:

Strong caustic effect.

Strong irritant with the danger of severe eye injury.

· Sensitization:

Sensitization possible through inhalation.

 $Sensitization\ possible\ through\ skin\ contact.$

· Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: Toxic

Harmful

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· 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.

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· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity:

 $96 \ hr \ LC50 > 220 \ mg/l \ (Fish)$

- · 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.
- · Ecotoxical effects:
- · Remark: Toxic for fish
- · Additional ecological information:
- · General notes:

Water hazard class 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

- · 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:

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

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

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· UN-Number	
$\cdot DOT$	NA2735
· IMDG, IATA	UN2735

· UN proper shipping name

 $\cdot DOT$ Amines, liquid, corrosive, n.o.s.

· IMDG AMINES, LIQUID, CORROSIVE, N.O.S., MARINE POLLUTANT

· IATA AMINES, LIQUID, CORROSIVE, N.O.S.

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Transport hazard class(es)

DOT

Class

Class

Recorrosive substances

Label

Packing group

DOT

III

Environmental hazards:

· Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

· UN "Model Regulation": UN2735, Amines, liquid, corrosive, n.o.s., ENVIRONMENTALLY

Warning: Corrosive substances

HAZARDOUS, 8, III

15 Regulatory information

· Marine pollutant:

· Segregation groups

· EMS Number:

· Special precautions for user

· Safety, health and environmental regulations/legislation specific for the substance or mixture

Yes

F-A.S-B

Alkalis

- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

80-05-7 bisphenol A

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65
- · 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.

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

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Trade name: ProBuild Slow Hardener

(Contd. of page 9)

· 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

GHS06 GHS08

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

Polyoxypropylenediamine

alpha-(2-Aminomethylethyl)-omega-(2-aminomethylethoxy)-poly(oxy(methyl-1,2-ethanediyl))

Teta, reaction products with propylene oxide

Polyoxylated Triethylenetetramine

bisphenol A

m-phenylenebis(*methylamine*)

· Hazard statements

Toxic if inhaled.

Causes severe skin burns and eye damage.

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

May cause an allergic skin reaction.

Suspected of damaging fertility or the unborn child.

May cause respiratory irritation.

Toxic to aquatic life with long lasting effects.

· Precautionary statements

Do not breathe dusts or mists.

Wear respiratory protection.

Wear protective gloves.

Wear eye protection / face protection.

Avoid release to the environment.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

IF ON SKIN (or hair): Remove/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.

Specific treatment (see on this label).

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Wash contaminated clothing before reuse.

IF exposed or concerned: Get medical advice/attention.

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

If swallowed: Rinse mouth. Do NOT induce vomiting.

Collect spillage.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

(Contd. on page 11)

Printing date 05/21/2015 Reviewed on 05/21/2015

Trade name: ProBuild Slow Hardener

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Dispose of contents/container in accordance with local/regional/national/international regulations.

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

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.

· Date of preparation / last revision 05/21/2015 / -

· Abbreviations and acronyms:

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

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

Acute Tox. 3: Acute toxicity, Hazard Category 3

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Repr. 2: Reproductive toxicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

USA