

SAFETY DATA SHEET – SET

Splice Shield™ Environmental Barrier Kit

Product ID numbers: CS-KIT, CS-XXX (where XXX is the package code.)

Date Compiled: Oct 1, 2015



Supplier/Manufacturer:

American Polywater Corporation
11222 - 60th Street North
Stillwater, MN 55082 USA
Tel: 1-651-430-2270
Email: sds@polywater.com

Polywater Europe BV
Zuidhaven 9-11 Unit B2
4761 CR Zevenbergen
Netherlands
Tel: +31 (0)10 2330578
Email: sds@
polywater.com

Emergency telephone numbers

INFOTRAC 1-352-323-3500 (USA)

This product is a kit or a multi-part product with independent components. An SDS for each component is included. Do not separate SDSs.

Contains

CS-A SpliceShield Part A SDS
CS-B SpliceShield Part B SDS

Each Kit may or may not contain all SDS components

The information and recommendations contained herein are believed to be reliable. However, the supplier makes no warranties, express or implied, concerning the use of this product. The buyer must determine conditions of safe usage and assumes all risk and liability in handling this product.

SAFETY DATA SHEET

1. Identification of the substance/mixture and of the company

1.1 Product identifier

**Product Name: Splice Shield™
Environmental Barrier
Type CS (Part A Resin)**

Product ID numbers: CS-KIT
CS-XXX (where XXX is the package/kit code.)

1.2 Relevant identified uses of the mixture and uses advised against

Identified uses: Flexible sealant/adhesive resin, Part A of 2-Part Adhesive

List of advices against: Not applicable.

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer:

American Polywater Corporation
11222 - 60th Street North
Stillwater, MN 55082 USA
Tel: 1-651-430-2270
Email: sds@polywater.com

1.4 Emergency telephone numbers

INFOTRAC 1-352-323-3500 (USA)

2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to OSHA 29 CFR 1910.1200 and Regulation (EC) No 1272/2008.

Skin Irritation, Cat 2	H315
Eye Irritation, Cat 2A	H317
Skin Sensitization, Cat 1	H319
Acute Toxicity, Cat 4	H312, H332

2.2 Label elements

Contains: Bisphenol A-epichlorohydrin polymer, Phenol-formaldehyde polymer glycidyl ether, 1,4-bis(2,3 epoxypropoxy)butane, butanedioldiglycidyl ether, Trimethylolpropane Triacrylate



Pictograms:

Signal word: Warning

Hazard Statements:

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H312 + H332	Harmful in contact with skin or if inhaled.

Precautionary Statements:

P264	Wash thoroughly after handling.
------	---------------------------------

P280	Wear protective gloves, protective clothing and eye protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P332 + P313	If skin irritation occurs: Get medical attention..
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists. Get medical attention.

2.3 Other hazards: No information available.

3. Composition/Information on Ingredients

<u>Component</u>	<u>CAS #</u>	<u>EC #</u>	<u>Wt. %</u>	<u>GHS/CLP Classification</u>
Bisphenol A-epichlorohydrin polymer	25068-38-6	500-033-5	50 - 70	Skin Irrit 2, H315 Skin Sens 1, H317 Eye Irrit 2A, H319
Liquid polysulfide polymer with thiol end groups (mx <1800)	68611-50-7	--	15 - 25	--
Phenol-Formaldehyde Polymer Glycidyl Ether	28064-14-4	--	5 - 15	Skin Irrit 2, H315 Skin Sens 1, H317 Eye Irrit 2A, H319
1,4-bis(2,3 epoxypropoxy)butane, butanedioldiglycidyl ether	2425-79-8	219-371-7	5 - 15	Skin Irrit 2, H315 Skin Sens 1, H317 Eye Irrit 2A, H319 Acute Tox 4, H312, H332
Trimethylolpropane Triacrylate	15625-89-5	239-701-3	1 - 5	STOT SE 3 (resp irrit), H335

4. First Aid Measures

4.1 Description of first aid measures

- Eye Contact:** Immediately flush eyes with large quantity of water for 15 minutes. Seek medical attention.
- Skin Contact:** Remove contaminated clothing; flush skin thoroughly with soap and water for at least 15 minutes. If irritation or allergic reaction occurs, seek medical attention.
- Inhalation (Breathing):** If irritation of nose or throat develops, move to fresh air. If irritation persists, seek medical attention.
- Ingestion (Swallowing):** No emergency medical treatment necessary

4.2 Most important symptoms and effects, both acute and delayed

Refer to Section 11 for more information.

4.3 Indication of immediate medical attention and special treatment needed.

No information available.

5. Firefighting Measures

5.1 Extinguishing media:

Water fog or fine spray, dry chemical carbon dioxide, or foam.

5.2 Special hazards arising from the substance or mixture

Dense smoke is emitted when burned without sufficient oxygen.

Hazardous decomposition and by-products:

CO₂, CO, phenolics. May contain other combustion products of varying composition which may be toxic or irritating.

5.3 Advice for firefighters

Wear full protective clothing, including self-contained, positive pressure or pressure-demand breathing apparatus. Sealed container can build up pressure when exposed to high heat. Water fog may be used to cool fire exposed container to prevent pressure build-up and possible auto-ignition or rupture. Direct water stream may spread fire.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Isolate area. Use appropriate safety equipment.

6.2 Environmental precautions:

Avoid release to the environment. Prevent spill from entering drainage/sewer systems, waterways, basements or confined areas. Refer to Section 12 for more information.

6.3 Methods materials for containment and cleaning up:

Absorb spill with sand or absorbents. Residual resin may be removed using steam or hot soapy water. Collect as much of the spilled material as possible using non-sparking tools and transfer to a container. Seal the container. Residual material can be removed with solvent.

6.4 Reference to other sections:

Refer to Sections 4, 5, 8, and 13 for more information.

7. Handling and Storage

7.1 Precautions for safe handling

Avoid personal contact with the product. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Wash thoroughly after handling. Wash contaminated clothing before reuse. For industrial or professional use only.

7.2 Conditions for safe storage, including incompatibilities

Keep containers cool, dry, and away from sources of ignition. Keep containers and cartridges capped and sealed. Protect from freezing. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

7.3 Specific end uses

See technical data sheet on this product for further information.

8. Exposure Controls / Personal Protection

8.1 Control parameters

Exposure limits and recommendations:

A Derived No Effect Level (DNEL) of 12.25 mg/m³ (Acute Inhalation) has been established for Bisphenol A-epichlorohydrin polymer.

8.2 Exposure controls

Respiratory protection:

Normal ventilation is adequate. If exposure exceeds recommended limits, respirator protection is recommended. Wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced. Use a respirator or gas mask with cartridges for organic vapors (NIOSH or CE approved) with particulate pre-filter, P100 or AP2.

Protective gloves:

The use of chemically resistant gloves is recommended to prevent skin contact. Suitable materials include nitrile (included in most kits), neoprene, ethyl vinyl alcohol (EVAL), PVC. Use a glove with a protection class of 1 or higher (breakthrough time greater than 10 minutes according to EN 374). NOTE: The selection of specific glove for the application should account for other chemicals in the environment, physical requirements and potential user reaction to the glove material.

Eye protection:

Safety glasses recommended.

Other protective equipment:

Use protective cream if skin contact is likely. Remove and wash contaminated clothing before reuse. Discard contaminated shoes.

9. Physical and Chemical**9.1 Information of basic physical and chemical properties**

Appearance:	Black viscous liquid.
Odor threshold:	Not available
pH:	Does not apply
Freezing point:	Not available
Boiling point:	Not available
Flash point:	Not available
Evaporation rate:	Not available
Flammability (solid, gas):	Not available
Upper/lower flammability or explosive limits:	Not available
Vapor pressure:	< 0.001 mm Hg @ 20°C
Vapor density (Air = 1):	>1
Specific gravity (H₂O = 1):	1.2 @ 25°C
Solubility in water:	Not available
Partition coefficient: n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not available

9.2 Other Information

Volatiles (Weight %):	0%
VOC Content:	0 g/l

10. Stability and Reactivity**10.1 Reactivity:**

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability:

Stable

10.3 Possibility of hazardous reactions:

Hazardous reactions will not occur under normal transport or storage conditions.

10.4 Conditions to avoid:

Avoid high temperatures above 300 °C (572 °F). Decomposition can occur above 350 °C (662 °F). Generation of gas during decomposition can cause pressure to build in closed systems.

10.5 Incompatible materials :

Strong acids or bases (especially primary or secondary aliphatic amines), strong oxidizing agents.

10.6 Hazardous decomposition products:

CO₂, CO, phenolics and other organic substances may be formed during combustion or elevated temperature degradation.

11. Toxicological Information**11.1 Information on toxicological effects:****Acute toxicity****Eye contact:**

Direct eye contact with material or vapors may cause eye irritation.

Skin contact:

This product has moderate skin irritation potential. Persons with pre-existing skin disorders may be more susceptible to skin irritation from this material. Prolonged or repeated skin exposure may cause skin sensitization.

Irritation and Sensitization Potential:

May cause allergic skin reaction.

Inhalation (Breathing):

Low vapor pressure makes this route of exposure unlikely.

Ingestion:

Ingestion may cause irritation of the gastrointestinal tract.

Toxicity to Animals:

Bisphenol A Diglycidyl Ether: LD₅₀ (oral rat) >15,000 mg/kg
 LD₅₀ (dermal rabbit) 23,000 mg/kg

Aspiration Hazard:

No aspiration hazard expected.

Chronic Exposure:

Reproductive Toxicity: Not available.
 Resins based on diglycidyl ether of bisphenol A have proved to be inactive when tested by in-vivo mutagenicity assays. These resins have shown activity in in-vitro microbial mutagenicity screening and have produced chromosomal aberrations in cultured rat-liver cells. The significance of these tests to humans is unknown.

Mutagenicity: Not available.

Teratogenicity: Not available.

Specific Target Organ Toxicity (STOT): Not available.

Toxicologically Synergistic Products: Not available.

Carcinogenic Status: This substance has not been identified as a carcinogen or probable carcinogen by NTP, IARC, or OSHA, nor have any of its components.

12. Ecological Information

12.1 Toxicity:

Aquatic Toxicity: May be toxic to aquatic organisms.

Bisphenol A Diglycidyl Ether: LC₅₀ (96 hr): 2 mg/l Oncorhynchus mykiss (rainbow trout)
 Semi-static test

Bisphenol A Diglycidyl Ether: EC₅₀ (24 hr): 2.8 mg/l Daphnia magna (invertebrate)
 Static test

Bisphenol A Diglycidyl Ether: ErC₅₀ (72 hr): 11 mg/l Fresh water algae (aquatic plants)
 Static test

Bisphenol A Diglycidyl Ether: Chronic Toxicity Value:
 Daphnia magna (invertebrate), 21 d, number of offspring, NOEC: 0.3 mg/l
 Semi-static test

Polysulfide Polymer: EC₅₀ (48 hr): 320 mg/l Pimephales promelas (fish)
 Static test

Polysulfide Polymer: EC₅₀ (48 hr): 4.71 mg/l Daphnia magna (invertebrate)
 Semi-static test

Polysulfide Polymer: ErC₅₀ (72 hr): 17 mg/l Algae
 Static test

12.2 Persistence and degradability:

Based on stringent OECD test guidelines, this material cannot be considered readily biodegradable. Biodegradability depends on environmental conditions.

Bisphenol A Diglycidyl Ether: OECD Biodegradation Test 302B
 12% Biodegradation, 28 d exposure

Bisphenol A Diglycidyl Ether: Theoretical Oxygen Demand
2.35 mg/mg

12.3 Bioaccumulation

potential: Bioconcentration potential is moderate.

12.4 Mobility in soil: Potential for mobility in soil is low..

12.5 Results of PBT and

vPvB Assessment: This product is not, nor does it contain a substance that is a PBT or vPvB.

12.6 Other adverse effects: None known.

13. Disposal Considerations

Do not dump into sewer, on ground or into any body of water. Dispose of product in accordance with National and Local Regulations.

14. Transport Information

DOT: Not Regulated
UN Number: 3082
UN Proper Shipping Name: Environmentally hazardous substance, liquid, N.O.S. (Bisphenol A)
Class and Subsidiary Risk: 9
Packing Group: III
ICAO/IATA-DGR: Not Regulated (See Special Provision A197)
IMDG: Not Regulated (See IMDG Code 2.10.2.7)
ADR/RID: 9
Other information For surface shipments within the United States: Not regulated.

15. Regulatory Information

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

USA Federal and State

All components are listed on the TSCA inventory.

Hazard Categories for SARA Section 311/312 Reporting	<u>Acute</u> Yes	<u>Chronic</u> No	<u>Fire</u> No	<u>Pressure</u> No	<u>Reactive</u> No
---	----------------------------	-----------------------------	--------------------------	------------------------------	------------------------------

<u>Components</u>	<u>CERCLA/SARA Sec 302 Hazardous Substance RQ</u>	<u>EHS TPQ</u>	<u>SARA Sec. 313 Toxic Release</u>
--------------------------	--	-----------------------	---

The components of BonDuit®-Gel Resin - Part A are not affected by these Superfund regulations.

NFPA Ratings:

Health:	2
Fire:	1
Reactivity:	0

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel during spill, fire or similar emergencies. Hazard ratings are based on physical and toxic properties of combustion or decomposition.

European Union

All components are listed on the European Inventory of Existing Chemical Substances (EINECS). Product complies with the communication requirements of REACH Regulation (EC) No. 1907/2006. It does not contain Substances of Very High Concern (SVHC).

Canada

All components are listed on the DSL inventory.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS Classification: Class D, Division 2B

Australia

All components are listed on the AICS.

Product is classified as hazardous according to criteria of NOHSC Australia.

15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out for the mixture by the supplier.

16. Other Information

Abbreviations and acronyms:

OSHA = Occupational Safety and Health Administration

CLP = Classification, Labeling and Packaging Regulation

STOT = Specific Target Organ Toxicity

LD₅₀ = Median Lethal Dose

DNEL = Derived No Effect Level

ACGIH = American Conference of Governmental Industrial Hygienists

TSCA = Toxic Substances Control Act (USA)

DSL = Domestic Substances List (Canada)

AICS = Australian Inventory of Chemical Substances

Revision Date: September 21, 2015

Revision Number: 6

Supersedes: January 2, 2015

Other: Not Applicable

Indication of Changes: Section 3 updated in accordance with the provisions of OSHA 1910.1200 App D and REACH Annex II (EU No 453/2010). (GHS format)

The information and recommendations contained herein are believed to be reliable. However, the supplier makes no warranties, express or implied, concerning the use of this product. The buyer must determine conditions of safe usage and assumes all risk and liability in handling this product.

SAFETY DATA SHEET

1. Identification of the substance/mixture and of the company

1.1 Product identifier

**Product Name: Splice Shield™
Environmental Barrier Sealant**

Product ID numbers: CS-KIT
CS-XXX (where XXX is the package/kit code.)

1.2 Relevant identified uses of the mixture and uses advised against

Identified uses: Flexible sealant/adhesive resin, Part B of 2-Part Adhesive

List of advices against: Not applicable.

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer:

American Polywater Corporation
11222 - 60th Street North
Stillwater, MN 55082 USA
Tel: 1-651-430-2270
Email: sds@polywater.com

Polywater Europe BV
Zuidhaven 9-11 Unit B2
4761 CR Zevenbergen
Netherlands
Tel: +31 (0)10 2330578
Email: sds@polywater.com

1.4 Emergency telephone numbers

INFOTRAC 1-352-323-3500 (USA)

2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to OSHA 29 CFR 1910.1200 and Regulation (EC) No 1272/2008.

Acute Tox, Cat 4	H302, H312, H332
Skin Irrit, Cat 2	H315
Skin Sens, Cat. 1	H317
Eye Irrit, Cat 2	H319

2.2 Label elements

Contains: Polymercaptan, Benzyl Alcohol, Cyclohexanemethanamine, 5-amino-1,3,3-trimethyl-, reaction products with bisphenol A diglycidyl ether homopolymer, Isophorone diamine, 1,3-bis[3-(Dimethylamino)propyl] urea



Pictograms:

Signal word: Warning

Hazard Statements:

H302 + H312 + H332	Harmful if swallowed, in contact with skin or if inhaled.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.

Precautionary Statements:

P264	Wash thoroughly after handling.
------	---------------------------------

- P280 Wear protective gloves, protective clothing and eye protection.
- P302 + P352 IF ON SKIN: Wash with plenty of water.
- P333 + P313 If skin irritation or rash occurs: Get medical attention.
- P362 + P364 Take off contaminated clothing and wash before reuse.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P338 If eye irritation persists: Get medical attention.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P501 Dispose of contents/container in accordance with local regulations.

2.3 Other hazards: No information available.

3. Composition/Information on Ingredients

<u>Component</u>	<u>CAS #</u>	<u>EC #</u>	<u>Wt. %</u>	<u>GHS/CLP Classification</u>
Polymercaptan	Proprietary	--	30 – 45	Skin Irrit 2, H315 Eye Dam 2, H319
Benzyl Alcohol	100-51-6	202-859-9	10 – 15	Acute Tox 4, H302, H332
Cyclohexanemethanamine, 5-amino-1,3,3-trimethyl-, reaction products with bisphenol A diglycidyl ether homopolymer	68609-08-5	614-657-1	10 – 15	
Isophorone diamine	2855-13-2	220-666-8	5 - 10	Acute Tox 4, H302, H312 Skin Corr 1B, H314 Skin Sens 1, H317
1,3-bis[3-(Dimethylamino)propyl] urea	52338-87-1	257-861-2	2 – 5	Skin Irrit 2, H315 Eye Dam 2, H319

4. First Aid Measures

4.1 Description of first aid measures

- Eye Contact:** Immediately flush eyes with large quantity of water for 15 minutes. For direct eye contact, flush with large quantity of water for one hour. Seek medical attention.
- Skin Contact:** Remove contaminated clothing; flush skin thoroughly with soap and water for at least 15 minutes. If irritation or allergic reaction occurs, seek medical attention.
- Inhalation (Breathing):** If irritation of nose or throat develops, move to fresh air. If irritation persists, seek medical attention.
- Ingestion (Swallowing):** Wash out mouth with water. Do not induce vomiting. If victim is unconscious, place on the left side with head down. Never give anything by mouth to an unconscious person. Do not leave victim unattended. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Refer to Section 11 for more information.

4.3 Indication of immediate medical attention and special treatment needed.

No information available.

5. Firefighting Measures

5.1 Extinguishing media:

Water fog or fine spray, dry chemical carbon dioxide, or foam.

5.2 Special hazards arising from the substance or mixture

Dense smoke is emitted when burned without sufficient oxygen.

Hazardous decomposition and by-products:

Oxides of carbon, oxides of sulfur, oxides of nitrogen. May generate ammonia gas. May contain other combustion products of varying composition which may be toxic or irritating.

5.3 Advice for firefighters

Wear full protective clothing, including self-contained, positive pressure or pressure-demand breathing apparatus. Sealed container can build up pressure when exposed to high heat. Water fog may be used to cool fire exposed container to prevent pressure build-up and possible auto-ignition or rupture. Direct water stream may spread fire.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Isolate area. Use appropriate safety equipment.

6.2 Environmental precautions:

Avoid release to the environment. Refer to Section 12 for more information.

6.3 Methods materials for containment and cleaning up:

Absorb spill with sand or absorbents. Residual resin may be removed using steam or hot soapy water. Collect as much of the spilled material as possible using non-sparking tools and transfer to a container. Seal the container. Residual material can be removed with solvent.

6.4 Reference to other sections:

Refer to Sections 4, 5, 8, and 13 for more information.

7. Handling and Storage

7.1 Precautions for safe handling

Avoid personal contact with the product. Uncured Hardener Part B is a skin irritant. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Wash thoroughly after handling. Wash contaminated clothing before reuse. For industrial or professional use only.

7.2 Conditions for safe storage, including incompatibilities

Keep containers cool, dry, and away from sources of ignition. Keep containers and cartridges capped and sealed. Protect from freezing. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

7.3 Specific end uses

See technical data sheet on this product for further information.

8. Exposure Controls / Personal Protection

8.1 Control parameters

Exposure limits and recommendations:

Contains no components with established Occupational Exposure Limit (OEL) values.

8.2 Exposure controls

Respiratory protection:

Good general ventilation should be sufficient to control exposure. Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary.

Protective gloves:

The use of chemically resistant gloves is recommended to prevent skin contact. Suitable materials include nitrile (included in most kits), neoprene, ethyl vinyl alcohol (EVAL), PVC.

Eye protection:

Safety glasses recommended.

Other protective equipment:

Use protective cream if skin contact is likely. Remove and wash contaminated clothing before reuse. Discard contaminated shoes.

9. Physical and Chemical

9.1 Information of basic physical and chemical properties

Appearance:	Viscous, white liquid with pungent, sulfuric odor.
Odor threshold:	Not available
pH:	Does not apply
Freezing point:	Not available
Boiling point:	Not available
Flash point:	>200°F / >90°C
Evaporation rate:	Not available
Flammability (solid, gas):	Not available
Upper/lower flammability or explosive limits:	Not available
Vapor pressure:	<1 mm Hg @ 20°C
Vapor density (Air = 1):	Not available
Specific gravity (H₂O = 1):	1.35 @ 20°C
Solubility in water:	Very slightly soluble
Partition coefficient: n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not available

9.2 Other Information

Volatiles (Weight %):	0%
VOC Content:	0 g/l

10. Stability and Reactivity

10.1 Reactivity:

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability:

Stable

10.3 Possibility of hazardous reactions:

Hazardous reactions will not occur under normal transport or storage conditions.

10.4 Conditions to avoid:

Avoid extreme heat and open flame.

10.5 Incompatible materials :

Strong oxidizing agents. Mineral acids, organic acids.

10.6 Hazardous decomposition products:

Oxides of carbon, oxides of sulfur, oxides of nitrogen and other organic substances may be formed during combustion or elevated temperature degradation.

11. Toxicological Information

11.1 Information on toxicological effects:

Acute toxicity

Eye contact:

Causes eye irritation.

Skin contact:

Causes skin irritation, blistering may occur.

Irritation and Sensitization Potential:

This product is a skin irritant and a sensitizer.

Inhalation (Breathing):

Can cause respiratory irritation. No specific data.

Ingestion:

Harmful if swallowed. Adverse symptoms may include stomach pains.

Toxicity to Animals:

Polymercaptan	LD ₅₀ (oral rat)	>2,000 mg/kg
Benzyl Alcohol	LD ₅₀ (oral rat)	1620 mg/kg (OECD 401 Acute Oral Toxicity)
	LC ₅₀ (inhl rat)	>4178mg/m3 (OECD 403 Acute Inhalation Toxicity)
Isophorone diamine	LD ₅₀ (oral rat)	1030 mg/kg (OECD 401 Acute Oral Toxicity)

Aspiration Hazard:

No aspiration hazard expected.

Chronic Exposure:

Reproductive Toxicity:	No known significant effects or critical hazards.
Mutagenicity:	No known significant effects or critical hazards.
Teratogenicity:	No known significant effects or critical hazards.
Specific Target Organ Toxicity (STOT)	No known significant effects or critical hazards.
Toxicologically Synergistic Products:	No known significant effects or critical hazards.
Carcinogenic Status:	This substance has not been identified as a carcinogen or probable carcinogen by NTP, IARC, or OSHA, nor have any of its components.

12. Ecological Information

12.1 Toxicity:

Aquatic Toxicity:

Benzyl Alcohol	LC ₅₀ (96 h):	460 mg/l Fish Acute (EPA OPPTS)
	EC ₅₀ (48 h):	230 mg/l Daphnia Acute (OECD 202 Daphnia sp. Acute Immobilisation Test)
	EgC ₅₀ (72 h):	770 mg/l Algae Acute (OECD 201 Algae Growth Inhibition Test)
	NOEC (72 h):	310 mg/l Algae Chronic (OECD 201 Algae Growth Inhibition Test)
	NOEC (21 d):	51 mg/l Daphnia Chronic (OECD 211 Daphnia Magna Reproduction Test)
Isophorone diamine	LC ₅₀ (96 h):	110 mg/l Fish Acute (EU EC C.1 Acute Toxicity for Fish)
	EC ₅₀ (48 h):	23 mg/l Daphnia Acute (OECD 202 Daphnia sp. Acute Immobilisation Test)
	EC ₅₀ (72 h):	37 mg/l Algae Acute (EU EC C.3 Algal Inhibition Test)

12.2 Persistence and degradability: Not readily biodegradable.

12.3 Bioaccumulation potential: Not available.

12.4 Mobility in soil: Not available.

12.5 Results of PBT and vPvB Assessment: This product is not, nor does it contain a substance that is a PBT or vPvB.

12.6 Other adverse effects: None known.

13. Disposal Considerations

Do not dump into sewer, on ground or into any body of water. Dispose of product in accordance with National and Local Regulations.

14. Transport Information

UN Number:	Not Listed
UN Proper Shipping Name:	Not Applicable

Class and Subsidiary Risk: Not Applicable
Packing Group: Not Applicable
TDG: Not Regulated
IMDG: Not Regulated

15. Regulatory Information

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

USA Federal and State

All components are listed on the TSCA inventory.

Hazard Categories for SARA Section 311/312 Reporting	<u>Acute</u> Yes	<u>Chronic</u> No	<u>Fire</u> No	<u>Pressure</u> No	<u>Reactive</u> No
---	---------------------	----------------------	-------------------	-----------------------	-----------------------

<u>Components</u>	CERCLA/SARA Sec 302 Hazardous Substance RQ	EHS TPQ	SARA Sec. 313 Toxic Release
Components are not affected by these Superfund regulations.			

NFPA Ratings:

Health:	2
Fire:	1
Reactivity:	1

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel during spill, fire or similar emergencies. Hazard ratings are based on physical and toxic properties of combustion or decomposition.

European Union

All components are listed on the European Inventory of Existing Chemical Substances (EINECS). Product complies with the communication requirements of REACH Regulation (EC) No. 1907/2006. It does not contain Substances of Very High Concern (SVHC).

Canada

All components are listed on the DSL inventory. This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS Classification: D2B (toxic)

Australia

All components are listed on the AICS. Product is classified as hazardous according to criteria of NOHSC Australia.

15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out for the mixture by the supplier.

16. Other Information

Abbreviations and acronyms:

- OSHA = Occupational Safety and Health Administration
- CLP = Classification, Labeling and Packaging Regulation
- STOT = Specific Target Organ Toxicity
- LD₅₀ = Median Lethal Dose
- DNEL = Derived No Effect Level
- ACGIH = American Conference of Governmental Industrial Hygienists
- TSCA = Toxic Substances Control Act (USA)
- DSL = Domestic Substances List (Canada)
- AICS = Australian Inventory of Chemical Substances

Revision Date: October 5, 2015

Revision Number: 6

Supersedes: January 2, 2015

Other: Not Applicable

Indication of Changes: Updated in accordance with the provisions of OSHA 1910.1200 App D and REACH Annex II (EU No 453/2010). (GHS format)

The information and recommendations contained herein are believed to be reliable. However, the supplier makes no warranties, express or implied, concerning the use of this product. The buyer must determine conditions of safe usage and assumes all risk and liability in handling this product.