SAFETY DATA SHEET – SET

PowerPatch® Slow Cure Leak Repair Kit

Product ID numbers: EPSC-KIT1, EPSC-KIT1S, EPSC-KIT2, EPSC-KITMBH, EPSC-XXX (where XXX is the package/kit code.)

Date Compiled: March 8, 2022

Supplier/Manufacturer:

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

Emergency telephone numbers

INFOTRAC: 1-800-535-5053 (USA) 1-352-323-3500 (INT'L)

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

PowerPatch EPSC Sealant Part A SDS
PowerPatch EPSC Sealant Part B SDS
PowerPatch Putty Stick SDS
Type RP Rapid Power Wipe SDS
Type HP Cleaner/Degreaser

SDSs are classified according to USA OSHA 29 CFR 1910.1200 (2012) and Canada HPR (SOR/2015-17; WHMIS 2015).

Each Kit may or may not contain all SDS components

SAFETY DATA SHEET

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

1.1 Product identifier

Product Name:
PowerPatch® Slow Cure Sealant
Type EPSC Paste (Part A)

Product ID numbers: EPSC-KIT1, EPSC-KIT2; EPSC-XXX (Where XXX is the package code.)

1.2 Relevant identified uses of the mixture and uses advised against

Identified uses: Sealant/adhesive resin, Part A of 2-Part Sealant

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: 1-800-535-5053 (USA) 1-352-323-3500 (INT'L)

2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to USA OSHA 29 CFR 1910.1200 (2012) and Canada HPR (SOR/2015-17; WHMIS 2015).
Skin Irritation, Cat 2; H315
Eye Irritation, Cat 2A; H319
Skin Sensitization, Cat 1; H317

2.2 Label elements

Contains Bisphenol A-epichlorohydrin polymer

Pictograms:

Signal word: Warning

Hazard Statements:

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 soap and water.
P333 + P313	If skin irritation or rash 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.
P362 + P364	Take off contaminated clothing.
P501	Dispose of container in accordance with local regulations

2.3 Other hazards: No information available.

3. Composition/Information on Ingredients

Component	CAS #	EC #	Wt. %
Bisphenol A-epichlorohydrin polymer	25068-38-6	500-033-5	30 - 50

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:

CO_2, 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:

Contains no components with established Occupational Exposure Limit (OEL) values.
A Derived No Effect Level (DNEL) of 12.25 mg/m^3 has been established for Acute Inhalation.

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:	Dark gray or black paste.
Odor threshold:	Not available
pH:	Does not apply
Freezing point:	Not available
Boiling point:	Not available
Flash point:	>400°F / >200°C (PMCC)
Evaporation rate:	Not available

Flammability (solid, gas):	Not available
Upper/lower flammability or explosive limits:	Not available
Vapor pressure:	Not available
Vapor density (Air = 1):	>1
Specific gravity (H_2O = 1):	1.25 @ 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:

CO_2, 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: LD_{50} (oral rat) >15,000 mg/kg
LD_{50} (dermal rabbit) 23,000 mg/kg

Aspiration Hazard:

No aspiration hazard expected.

Chronic Exposure:

Reproductive Toxicity: Not available.

Mutagenicity: 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.

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:	LC_{50} (96 hr.): 2 mg/l Oncorhynchus mykiss (rainbow trout) Semi-static test
Bisphenol A Diglycidyl Ether:	EC_{50} (48 hr.): 1.8 mg/l Daphnia magna (invertebrate) Static test
Bisphenol A Diglycidyl Ether:	ErC_{50} (72 hr.): 11 mg/l Fresh water algae (aquatic plants) Static test
	Chronic Toxicity Value:
Bisphenol A Diglycidyl Ether:	Daphnia magna (invertebrate),21 d, number of offspring, NOEC: 0.3 mg/l Semi-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	**Acute**	**Chronic**	**Fire**	**Pressure**	**Reactive**
	Yes	No	No	No	No

	CERCLA/SARA Sec 302		SARA Sec. 313
Components	**Hazardous Substance RQ**	**EHS TPQ**	**Toxic Release**

The components of PowerPatch®-Leak Sealant Paste - Part A are not affected by these Superfund regulations.

NFPA Ratings:	Health:	1
	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.

California Proposition 65
WARNING: This product can expose you to 2-(phenoxymethyl)-oxirane which is known to the state of California to cause cancer, and 4,4'-(1-methylethylidene)bis-phenol which is known to the State of California to cause birth defects and/or other reproductive harm. For more information, go to www.p65warnings.ca.gov.

European Union
Product complies with the communication requirements of REACH Regulation (EC) No. 1907/2006. All components are listed on the European Inventory of Existing Chemical Substances (EINECS). Contains no substance on the REACH candidate list ≥ 0.1% SCL. Does not contain notified substances from the ELINCS List, Directive 92/32/EEC. Contains no REACH substances with Annex XVII restrictions.

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.

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
LD_{50} = 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

Mixture classification according to Regulation (EC) No 1272/2008:		**Classification Procedure**
H315	Causes skin irritation.	Calculation method.
H317	May cause an allergic skin reaction.	Calculation method.
H319	Causes serious eye irritation.	Calculation method.

Revision Date:	March 4, 2022
Revision Number:	8 NA
Supersedes:	September 20, 2018
Other:	Not Applicable
Indication of Changes:	Section 8, 15 updated; PPE updates and additional California Proposition 65 information. Written in accordance with the provisions of OSHA 1910.1200 App D (2012) and Canada HPR (SOR/2015-17) (WHMIS 2015). (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:
PowerPatch® Slow Cure Sealant
Type EPSC Paste (Part B)

Product ID numbers: EPSC-KIT1, EPSC-KIT2, EPSC-XXX (Where XXX is the package code.)

1.2 Relevant identified uses of the mixture and uses advised against

Identified uses: Sealant/adhesive resin, Part B of 2-Part Sealant

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: 1-800-535-5053 (USA) 1-352-323-3500 (INT'L)

2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to USA OSHA 29 CFR 1910.1200 (2012) and Canada HPR (SOR/2015-17; WHMIS 2015).
Skin Irritation, Cat 2; H315
Eye Irritation, Cat 2; H319
Skin Sensitization, Cat 1; H317

2.2 Label elements

Contains: Polymer of C-18 Unsaturated Fatty Acid Dimers, Triethylenetetramine, Diethylene glycol bis (3-aminopropyl) ether

Pictograms:

Signal word: Warning

Hazard Statements:

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 soap and water.

P333 + P313	If skin irritation or rash 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.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/container in accordance with local and national regulations.

2.3 Other hazards: No information available.

3. Composition/Information on Ingredients

Component	CAS #	EC #	Wt. %
Polymer of C-18 Unsaturated Fatty Acid Dimers with TETA & TOFA	68082-29-1	500-191-5	30 - 50
Polymer of C-18 Unsaturated Fatty Acid Dimers	68541-13-9	--	10 - 15
Triethylenetetramine	112-24-3	203-950-6	2 - 5
Diethylene glycol bis (3-aminopropyl) ether	4246-51-9	224-207-2	1 - 3

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): 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 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. 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:

Normal ventilation is adequate. If exposure exceeds recommended limits, respirator protection is recommended. Use a respirator or gas mask with cartridges for organic vapors (NIOSH-approved) or use supplied air equipment.

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:	White to yellow paste; slight sulfur, pungent odor.
Odor threshold:	Not available
pH:	Does not apply

Freezing point:	Not available
Boiling point:	Not available
Flash point:	>200°F / >90°C (PMCC)
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 (H_2O = 1):	1.17 @ 20°C
Solubility in water:	Negligible
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.

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:

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

Skin contact:

May cause severe skin irritation, especially on prolonged contact. Prolonged or repeated skin exposure may cause skin sensitization.

Irritation and Sensitization Potential:

This product has high skin irritation potential. It is a sensitizer.

Inhalation (Breathing):

Low vapor pressure makes this route of exposure unlikely. No known significant hazard.

Ingestion:

Material is considered slightly toxic. Ingestion may cause irritation of the gastrointestinal tract, nausea, vomiting, and diarrhea.

Toxicity to Animals:

Polymercaptan amine blend	LD_{50} (oral rat) >2,000 mg/kg
Polymer of C-18 Unsaturated Fatty Acid Dimers with TETA & TOFA	LD_{50} (oral rat) >2,000 mg/kg
	LD_{50} (dermal rabbit) >2,000 mg/kg
Triethylenetetramine	LD_{50} (oral rat) 2,780 mg/kg
	LD_{50} (dermal rabbit) 550 mg/kg

Aspiration Hazard:

No aspiration hazard expected.

Chronic Exposure:

Reproductive Toxicity: Not available.

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: Not available.

12.2 Persistence and degradability: Not available.

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

DOT: Not Regulated

UN Number: Not Listed

UN Proper Shipping Name: Not Applicable

Class and Subsidiary Risk: Not Applicable

Packing Group: Not Applicable

ICAO/IATA-DGR: Not Regulated

IMDG: Not Regulated

ADR/RID: 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	Acute	Chronic	Fire	Pressure	Reactive
	Yes	No	No	No	No

Components	CERCLA/SARA Sec 302 Hazardous Substance RQ	CERCLA/SARA Sec 302 EHS TPQ	SARA Sec. 313 Toxic Release

The components of PowerPatch®-Leak Sealant Paste - Part B 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.

California Proposition 65
This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm or has been assessed to be below OEHHA Safe Harbor exposure levels required for labeling.

European Union
Product complies with the communication requirements of REACH Regulation (EC) No. 1907/2006. All components are listed on the European Inventory of Existing Chemical Substances (EINECS). Contains no substance on the REACH candidate list ≥ 0.1% SCL. Does not contain notified substances from the ELINCS List, Directive 92/32/EEC. Contains no REACH substances with Annex XVII restrictions.

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.

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
LD_{50} = 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

Mixture classification according to Regulation (EC) No 1272/2008:		Classification Procedure
H315	Causes skin irritation.	Calculation method.
H317	May cause an allergic skin reaction.	Calculation method.
H319	Causes serious eye irritation.	Calculation method.

Revision Date:	March 4, 2022
Revision Number:	8 NA
Supersedes:	September 20, 2018
Other:	Not Applicable
Indication of Changes:	Section 8 updated; added PPE pictograms. Written in accordance with the provisions of OSHA 1910.1200 App D (2012) and Canada HPR (SOR/2015-17) (WHMIS 2015). (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:
PowerPatch® Putty Stick (EP-STICK)
Part Numbers: 50822, 51043

Product ID numbers: EP-STICK4**;**
Contained in EP-KITXXX (Where XXX is the package code.)

1.2 Relevant identified uses of the mixture and uses advised against

Identified uses: 2-Part Putty Sealant for temporary repair

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: 1-800-535-5053 (USA) 1-352-323-3500 (INT'L)

2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to USA OSHA 29 CFR 1910.1200 (2012) and Canada HPR (SOR/2015-17; WHMIS 2015).

Skin Irrit 2	H315
Skin Sens 1	H317
Eye Irrit 2B	H319

2.2 Label elements

Contains Bisphenol A-epichlorohydrin polymer

Pictograms:

Signal word: Warning

Hazard Statements:

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.

Precautionary Statements:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves, protective clothing and eye protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.

P333 + P313	If skin irritation or rash 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.
P362 + P364	Take off contaminated clothing.
P501	Dispose of container in accordance with local regulations

2.3 Other hazards: No information available.

3. Composition/Information on Ingredients

Component	CAS #	EC #	Wt. %
Bisphenol A-epichlorohydrin polymer	25068-38-6	500-033-5	10 - 30

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:

CO_2, 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:

Contains no components with established Occupational Exposure Limit (OEL) values.
A Derived No Effect Level (DNEL) of 12.25 mg/m^3 has been established for Acute Inhalation.

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:	Gray/dark gray, solid putty stick. Pungent, sulfurous odor.
Odor threshold:	Not available
pH:	Not available
Freezing point:	Not available
Boiling point:	Not available
Flash point:	>199.9°F / >93.3°C (PMCC)

Evaporation rate:	Not available
Flammability (solid, gas):	Not available
Upper/lower flammability or explosive limits:	Not available
Vapor pressure:	Not available
Vapor density (Air = 1):	Not available
Specific gravity (H_2O = 1):	2.247
Solubility in water:	Not available
Partition coefficient: n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	>392°F / >200°C
Viscosity:	Not available (thick putty)

9.2 Other Information

Volatiles (Weight %):	<0.1%
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:

CO_2, 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:	LD_{50} (oral rat) >15,000 mg/kg
	LD_{50} (dermal rabbit) 23,000 mg/kg

Aspiration Hazard:

No aspiration hazard expected.

Chronic Exposure:

Reproductive Toxicity:	Not available.
Mutagenicity:	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.
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:	LC_{50} (96 hr.): 2 mg/l Oncorhynchus mykiss (rainbow trout) Semi-static test
Bisphenol A Diglycidyl Ether:	EC_{50} (48 hr.): 1.8 mg/l Daphnia magna (invertebrate) Static test
Bisphenol A Diglycidyl Ether:	ErC_{50} (72 hr.): 11 mg/l Fresh water algae (aquatic plants) Static test
	Chronic Toxicity Value:
Bisphenol A Diglycidyl Ether:	Daphnia magna (invertebrate),21 d, number of offspring, NOEC: 0.3 mg/l Semi-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:	3077
UN Proper Shipping Name:	Environmentally hazardous substance, solid, 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	**Acute**	**Chronic**	**Fire**	**Pressure**	**Reactive**
	Yes	Yes	No	No	No

Components	**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:	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.

California Proposition 65
WARNING: This product can expose you to 2-(phenoxymethyl)-oxirane which is known to the state of California to cause cancer, and 4,4'-(1-methylethylidene)bis-phenol which is known to the State of California to cause birth defects and/or other reproductive harm. For more information, go to www.p65warnings.ca.gov.

European Union
Product complies with the communication requirements of REACH Regulation (EC) No. 1907/2006. All components are listed on the European Inventory of Existing Chemical Substances (EINECS). Contains no substance on the REACH candidate list ≥ 0.1% SCL. Does not contain notified substances from the ELINCS List, Directive 92/32/EEC. Contains no REACH substances with Annex XVII restrictions.

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.

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
LD_{50} = 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

Mixture classification according to Regulation (EC) No 1272/2008:		**Classification Procedure**
H315	Causes skin irritation.	Calculation method.
H317	May cause an allergic skin reaction.	Calculation method.
H319	Causes serious eye irritation.	Calculation method.

Revision Date:	September 20, 2018
Revision Number:	8 NA
Supersedes:	August 7, 2017
Other:	Not Applicable
Indication of Changes:	Section 8, 15 updated; added PPE pictograms and additional California Proposition 65 information. Written in accordance with the provisions of OSHA 1910.1200 App D (2012) and Canada HPR (SOR/2015-17) (WHMIS 2015). (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: Type RP™
Rapid Power Electrical Cleaning Wipe

Product ID numbers: RP-1, RP-1L
RP-XXX (Where XXX is the package code.)

1.2 Relevant identified uses of the mixture and uses advised against

Identified uses: Utility Cleaner/Degreaser

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: 1-800-535-5053 (USA) 1-352-323-3500 (INT'L)

2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to USA OSHA 29 CFR 1910.1200 (2012) and Canada HPR (SOR/2015-17; WHMIS 2015).

Flam Liq 2	H225
Skin Irrit. 2	H315
STOT SE 3	H336

2.2 Label elements

Contains: 2-methylpentane, Low boiling point naphtha, 1-methoxypropan-2-ol

Pictograms:

Signal word: Danger

Hazard Statements:

H225	Extremely flammable liquid and vapor
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness

Precautionary Statements:

P210	Keep away from sparks, flames and hot surfaces. No smoking.
P261	Avoid breathing vapor.
P264	Wash hands thoroughly after handling.

P271	Use in a well-ventilated area.
P280	Wear protective gloves.
P303 + P361 + P353	IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water.
P332 + P313	If skin irritation occurs: get medical attention.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312	Call a doctor if you feel unwell.
P370 + P378	In case of fire: Use water fog, foam, dry chemical or carbon dioxide for extinction.
P403 + P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local and national regulations.

Notes: *Aspiration classification not applied due to the physical form of the product.*

2.3 Other hazards: No information available.

3. Composition/Information on Ingredients

Component	CAS #	EC #	Wt. %
2-methylpentane	107-83-5	203-523-4	40 - 60%
Low boiling point naphtha	64742-89-8	265-192-2	40 - 60%
1-methoxypropan-2-ol	107-98-2	203-539-1	<10%

4. First Aid Measures

4.1 Description of first aid measures

Eye Contact: If eye irritation from exposure to vapors develops, move to fresh air. Flush eyes with clean water. If irritation persists, seek medical attention. For direct eye contact, flush with large quantity of water for 15 minutes. Seek medical attention.

Skin Contact: Remove contaminated clothing; flush skin thoroughly with water. If irritation occurs, seek medical attention.

Inhalation (Breathing): If irritation of nose or throat develops, move to fresh air. If irritation persists, seek medical attention. If breathing is difficult, provide oxygen. If not breathing, give artificial respiration. Seek immediate medical attention.

Ingestion (Swallowing): Do not induce vomiting or give anything by mouth unless directed to do so by medical personnel. Get medical attention if symptoms appear.

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:

Carbon dioxide, water fog, dry chemical or foam.

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition and by-products:

Burning generates carbon monoxide, carbon dioxide.

5.3 Advice for firefighters

Wear appropriate, protective clothing, including self-contained, positive pressure or pressure-demand breathing apparatus. Sealed container can build up pressure when exposed to high heat. Use water spray to cool fire exposed containers.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Keep away from heat/sparks/open flames/hot surfaces. No smoking. For a spill in a confined space, provide mechanical ventilation to disperse or exhaust vapors. For emergency responders: use respiratory protection: half-face or full-face respirator with filter(s) for organic vapor for spills in a confined space. Chemical goggles are recommended if splashes or contact with eyes is possible. For small spills: normal antistatic work clothes are usually adequate.

6.2 Environmental precautions:

Avoid release to the environment.

6.3 Methods materials for containment and cleaning up:

Collect towel and absorb any excess material with sand or absorbents.

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

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Avoid breathing vapors or spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use only outdoors or in a well-ventilated area. For industrial or professional use only.

7.2 Conditions for safe storage, including incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store away from acids and oxidizing agents.

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:

2-Methylpentane (107-83-5)

Country/Source	Long-term exposure limit – 8 hr. TWA	Short-term exposure limit – 15 min
USA, ACGIH TWA*	500 ppm	1000 ppm
USA, OSHA PEL	500 ppm	1000 ppm
USA, NIOSH	100 ppm / 1800 mg/m^3	--
Alberta, OEL	500 ppm / 1760 mg/m^3	1000 ppm / 3500 mg/m^3

Low boiling point naphtha (64742-89-8)

No information available

1-Methoxypropane-2-ol (107-98-2)

USA, ACGIH TWA*	50 ppm	100 ppm
Alberta, OEL	100 ppm / 369 mg/m^3	150 ppm / 553 mg/m^3
British Columbia, OEL	50 ppm	75 ppm
Ontario, OEL	50 ppm	100 ppm
Quebec, OEL	100 ppm / 369 mg/m^3	150 ppm / 553 mg/m^3
Saskatchewan, OEL	100 ppm	150 ppm

** Manitoba, Newfoundland and Labrador, Nova Scotia, and Prince Edward Island are all based on the current ACGIH TLVs. British Columbia is based on current ACGIH TLV unless otherwise noted. New Brunswick is based on an older version ACGIH. Nunavet and Northwest Territories are based heavily on current ACGIH TLVs.*

8.2 Exposure controls

Respiratory protection:
Normal ventilation is adequate. If exposure exceeds recommended limits, respirator protection is recommended. Use a respirator or gas mask with cartridges for organic vapors (NIOSH-approved) or use supplied air equipment.

Protective gloves:

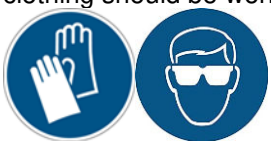
For repeated or prolonged skin contact, the use of impermeable gloves is recommended to prevent drying and possible irritation.

Suggested Material: Nitrile Rubber
For short term contact (<15 minutes), splashes use 0.2 mm. For full contact use
Suggested Thickness: 0.4 mm
Exact break-through time has not been determined. Guidance is based on similar chemistry/material. Maximum wearing time should be determined based on 50 % of the penetration time determined by EN 374 part III.

Eye protection:

Safety glasses recommended.

Other protective equipment:
It is suggested that a source of clean water be available in work area for flushing eyes and skin. Impervious clothing should be worn as needed.



9. Physical and Chemical

9.1 Information of basic physical and chemical properties

Appearance:	Clear, colorless liquid; mild odor.
Odor threshold:	Not available
pH:	Does not apply
Freezing point:	Not available
Boiling point:	144°F / 62°C (initial)
Flash point:	19°F / -7°C (TCC)
Evaporation rate:	>2 (n-butyl acetate = 1)
Flammability (solid, gas):	Not applicable to liquids
Flammability limits:	**LEL:** 1.2%
Vapor pressure:	Not available
Vapor density (Air = 1):	>1(Air = 1)
Specific gravity (H_2O = 1):	0.72
Solubility in water:	Not available
Coefficient of Water/Oil Distribution:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not available

9.2 Other Information

Volatiles (Weight %):	100%
VOC Content:	720 g/l

10. Stability and Reactivity

10.1 Reactivity:

See remaining headings in Section 10.

10.2 Chemical stability:

Stable

10.3 Possibility of hazardous reactions:

None known.

10.4 Conditions to avoid:

Avoid heat, flame, and sparks.

10.5 Incompatible materials :

Strong oxidizing agents.

10.6 Hazardous decomposition products:

Carbon dioxide, carbon monoxide.

11. Toxicological Information

11.1 Information on toxicological effects:

Acute toxicity

Eye contact:

Direct eye contact may cause eye irritation. This irritation is minimal and expected to be transient.

Skin contact:

Prolonged or repeated skin exposure can remove oils, causing redness, drying and cracking. Persons with pre-existing skin disorders may be more susceptible to skin irritation from this material.

Irritation and Sensitization Potential:

Product may be irritating to skin and eyes. It is not a sensitizer.

Inhalation (Breathing):

Concentrated solvent vapors may cause irritation of the nose and throat. Prolonged exposure to excessively high vapor concentrations can result in central nervous system depression (e.g., drowsiness, dizziness, loss of coordination, and fatigue).

Ingestion:

Ingestion of large quantities may cause irritation of the digestive tract, nervous system depression (e.g., drowsiness, dizziness, loss of coordination, and fatigue).

Toxicity to Animals:

2-methylpentane	No Data Available
Low boiling point naphtha	LD_{50} (oral rat) >5,000 mg/kg
	LD_{50} (dermal rabbit) >2,000 mg/kg
	Rabbit 4 hr. exposure: Irritating to skin, irritating to eyes
1-methoxypropan-2-ol	LD_{50} (oral rat) 6,100 mg/kg
	LD_{50} (dermal rabbit) 13,000 mg/kg
	LC_{50} (inhl rat) >6 mg/l

Chronic Exposure:

Reproductive Toxicity:	No data available.
Mutagenicity:	No data available
Teratogenicity:	No data available
Specific Target Organ Toxicity (STOT)	No end point data.
Toxicologically Synergistic Products:	Not available.

Carcinogenic Status:

IARC No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

OSHA No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

12. Ecological Information

12.1 Ecotoxicity:

Aquatic Toxicity:	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
2-methylpentane	No Data Available
Low boiling point naphtha	96 h LC_{50} Oncorhynchus mykiss (Rainbow Trout) 8.2 mg/l 48 h EC_{50} Daphnia magna (water flea) 4.5 mg/l 96 h EC_{50} Pseudokirchneriella subcapitata (green algae) 3.7 mg/l
1-methoxypropan-2-ol	96 h LC_{50} Pimephales promelas (Fathead Minnow) 20,800 mg/l 48 h LC_{50} Daphnia magna (water flea) 23,300 mg/l 7 d EC_{50} Pseudokirchneriella subcapitata (green algae) > 1000 mg/l
12.2 Persistence and degradability:	Expected to be biodegradable
Low boiling point naphtha	77% biodegradable, 28 d exposure time, method: OECD 301E
1-methoxypropan-2-ol	96% biodegradable, 28 d exposure time, method: OECD 301E
12.3 Bioaccumulation potential:	No information available
12.4 Mobility in soil:	No information 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

Dispose of product in accordance with National and Local Regulations.

14. Transport Information

US DOT Domestic Ground Transportation:	Not Regulated (See Special Provision 47).
UN Number:	3175
UN Proper shipping name:	Solids Containing Flammable Liquid, N.O.S., (Contains: 2-methylpentane, Low boiling point naphtha)
Transport hazard class(es):	Class 4.1
Packing group:	II
Environmental hazards:	None known
Special precautions:	None known
ICAO/IATA-DGR:	Not Regulated (See Special Provision A46)
IMDG:	Not Regulated (See Special Provision 216)

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	**Acute**	**Chronic**	**Fire**	**Pressure**	**Reactive**

Section 311/312 Reporting	Yes	Yes	Yes	No	No

	CERCLA/SARA Sec 302		SARA Sec. 313
Components	**Hazardous Substance RQ**	**EHS TPQ**	**Toxic Release**

Components are not affected by these Superfund regulations.

NFPA Ratings: Health: 2
Fire: 3
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.

California Proposition 65
WARNING: This product can expose you to benzene, ethylbenzene, and naphthalene which are known to the state of California to cause cancer, and toluene and benzene which are known to the State of California to cause birth defects and/or other reproductive harm. For more information, go to www.p65warnings.ca.gov.

European Union
Product complies with the communication requirements of REACH Regulation (EC) No. 1907/2006. All components are listed on the European Inventory of Existing Chemical Substances (EINECS). Contains no substance on the REACH candidate list ≥ 0.1% SCL. Does not contain notified substances from the ELINCS List, Directive 92/32/EEC. Contains no REACH substances with Annex XVII restrictions.

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

Australia
All components are listed on the AICS.
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
LD_{50} = 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:	March 4, 2022
Revision Number:	5 NA
Supersedes:	September 24, 2018
Other:	Not Applicable
Indication of Changes:	Section 8 updated; added PPE pictograms. Written in accordance with the provisions of OSHA 1910.1200 App D (2012) and Canada HPR (SOR/2015-17) (WHMIS 2015). (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:
Type HP™ Cleaner/Degreaser

Product ID numbers: HP-XXX (Where XXX is the package code.)

1.2 Relevant identified uses of the mixture and uses advised against

Identified uses: Electrical cleaning

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: 1-800-535-5053 (USA) 1-352-323-3500 (INT'L)

2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to USA OSHA 29 CFR 1910.1200 (2012) and Canada HPR (SOR/2015-17; WHMIS 2015).

Asp Tox 1	H304
Skin Sens 1	H317
Flam Liq 4	H227

2.2 Label elements

Contains: Petroleum distallates, hydrotreated light; d-Limonene

Pictograms:

Signal word: Danger

Hazard Statements:

H227	Combustible liquid
H304	May be fatal if swallowed and enters airways
H317	May cause an allergic skin reaction.

Precautionary Statements:

P210	Keep away from flames and hot surfaces. No smoking.
P261	Avoid breathing fumes.
P280	Wear protective gloves.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P331	Do NOT induce vomiting.
P302 + P352	IF ON SKIN: Wash with plenty of water.
P333 + P313	If skin irritation or rash occurs: Get medical advice.
P363	Wash contaminated clothing before reuse.
P370 + P378	In case of fire use media other than water to extinguish.
P403 + P235	Store in a secure, well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local and national regulations.

2.3 Other hazards: No information available.

3. Composition/Information on Ingredients

Component	CAS #	EC #	Wt. %
Petroleum distillates, hydrotreated light	64742-47-8	265-149-8	90 - 100
d-Limonene	5989-27-5	227-813-5	< 10

4. First Aid Measures

4.1 Description of first aid measures

Eye Contact: If eye irritation from exposure to vapors develops, move to fresh air. Flush eyes with clean water. If irritation persists, seek medical attention. For direct eye contact, flush with large quantity of water for 15 minutes. Seek medical attention.

Skin Contact: Remove contaminated clothing; flush skin thoroughly with water. If irritation occurs, seek medical attention.

Inhalation (Breathing): If irritation of nose or throat develops, move to fresh air. If irritation persists, seek medical attention. If breathing is difficult, provide oxygen. If not breathing, give artificial respiration. Seek immediate medical attention.

Ingestion (Swallowing): Do not induce vomiting or give anything by mouth. If victim is drowsy or unconscious, place on the left side with head down. 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.

Aspiration hazard. If ingested, material may be aspirated into the lungs and cause chemical pneumonitis.

5. Firefighting Measures

5.1 Extinguishing media:

Carbon dioxide, water fog, dry chemical or foam.

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition and by-products:

Burning generates CO, CO_2 and smoke. Smoke may be acrid and fumes 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. Use water spray to cool fire exposed containers.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Use only non-sparking tools to clean up the spill. For a spill in a confined space, provide mechanical ventilation to disperse or exhaust vapors. For emergency responders: use respiratory protection: half-face or full-face respirator with filter(s) for organic

vapor for spills in a confined space. Work gloves that are resistant to aromatic hydrocarbons are recommended. Chemical goggles are recommended if splashes or contact with eyes is possible. For small spills: normal antistatic work clothes are usually adequate.

6.2 Environmental precautions:

Avoid release to the environment. Dyke the spill to prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods materials for containment and cleaning up:

Absorb spill with sand or absorbents. Collect as much of the spilled material as possible using non-sparking tools and transfer to a container. Seal the container. Remember, adding an absorbent material does not change the toxicity or flammability hazard.

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

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Avoid breathing vapors or spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Wash contaminated clothing before reuse. For industrial or professional use only. Avoid contact with oxidizing agents (e.g. chlorine, chromic acid etc.)

7.2 Conditions for safe storage, including incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store away from acids and oxidizing agents.

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:

Petroleum Distillates, hydrotreated light (64742-47-8)

Country/Source	Long-term exposure limit – 8 hr. TWA	Short-term exposure limit – 15 min
Manufacturer, RCP* TWA	1200 mg/m^3	--
USA, ACGIH TWA	Not established	Not established
USA, OSHA PEL	2000 mg/m^3 , 500 ppm (as petroleum distillates (naphtha))	--
British Columbia	200 mg/m^3	--
Alberta, Quebec, Yukon, Saskatchewan, Ontario*	Not established	--

D-Limonene (5989-27-5)

Country/Source	Long-term exposure limit – 8 hr. TWA	Short-term exposure limit – 15 min
USA ACGIH TWA	Not established	Not established
USA OSHA PEL	Not established	Not established
Alberta, Quebec, Yukon, British Columbia, Saskatchewan, Ontario*	Not established	Not established

** reciprocal calculation procedure for total hydrocarbons*

*** Manitoba, Newfoundland and Labrador, Nova Scotia, and Prince Edward Island are all based on the current ACGIH TLVs. New Brunswick is based on an older version ACGIH. Nunavet and Northwest Territories are based heavily on current ACGIH TLVs.*

8.2 Exposure controls

Respiratory protection:
Normal ventilation is adequate. If exposure exceeds recommended limits, respirator protection is recommended. Use a respirator or gas mask with cartridges for organic vapors (NIOSH or CE approved) with particulate pre-filter, P100 or AP2.

Protective gloves:
For repeated or prolonged skin contact, the use of impermeable gloves is recommended to prevent drying and possible irritation. If contact with forearms is likely wear gauntlet style gloves.

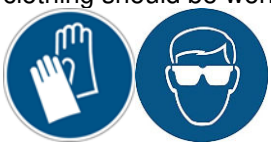
Suggested Material: Nitrile Rubber
Suggested Thickness: For short term contact (<15 minutes), splashes use 0.2 mm. For full contact use 0.4 mm

Nitrile, minimum 0.38 mm thickness or comparable protective barrier material with a high performance level for continuous contact use conditions, permeation breakthrough minimum 480 minutes in accordance with CEN standards EN 420 and EN 374.

Eye protection:

Safety glasses recommended.

Other protective equipment:
It is suggested that a source of clean water be available in work area for flushing eyes and skin. Impervious clothing should be worn as needed.



9. Physical and Chemical

9.1 Information of basic physical and chemical properties

Appearance:	Clear, colorless liquid with a very light citrus scent.
Odor threshold:	Not available
pH:	Does not apply
Freezing point:	<-58°F (<-50°C)
Boiling point:	365°F (185°C) Initial
Flash point:	>140°F (>60.5°C), Closed Cup (PMCC)
Evaporation rate:	<0.1 (n-butyl acetate = 1)
Flammability (solid, gas):	Not applicable to liquids
Upper/lower flammability or explosive limits:	LEL = 0.7% UEL = 6.1%-7.0%
Vapor pressure:	<1 mm Hg < 134 Pa @ 20°C
Vapor density (Air = 1):	> 1.0
Specific gravity (H_2O = 1):	0.79
Solubility in water:	Nil
Partition coefficient: n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	1.3 cSt (1.3 mm2/sec) at 20°C - 2.5 cSt (2.5 mm2/sec) at 20°C [ASTM D7042]

9.2 Other Information

Volatiles (Weight %):	100%
VOC Content:	790 g/l

10. Stability and Reactivity

10.1 Reactivity:

See remaining headings in Section 10.

10.2 Chemical stability:

Stable

10.3 Possibility of hazardous reactions:

None known.

10.4 Conditions to avoid:

Avoid heat, flame, and sparks.

10.5 Incompatible materials :

Strong oxidizing agents.

10.6 Hazardous decomposition products:

Carbon dioxide, carbon monoxide.

11. Toxicological Information

11.1 Information on toxicological effects:

Acute toxicity

Eye contact:

Direct eye contact may cause eye irritation. This irritation is minimal and expected to be transient.

Skin contact:

Prolonged or repeated skin exposure can remove oils, causing redness, drying and cracking. Persons with pre-existing skin disorders may be more susceptible to skin irritation from this material.

Irritation and Sensitization Potential:

Product may be irritating to skin and eyes. It may cause an allergic skin reaction.

Inhalation (Breathing):

Concentrated petroleum solvent vapors may cause irritation of the nose and throat. Prolonged exposure to excessively high vapor concentrations can result in central nervous system depression (e.g., drowsiness, dizziness, loss of coordination, and fatigue). Persons with impaired lung function may experience additional breathing difficulties due to the irritant properties of this material.

Ingestion:

Ingestion of large quantities may cause irritation of the digestive tract, nervous system depression (e.g., drowsiness, dizziness, loss of coordination, and fatigue).

Toxicity to Animals:

Petroleum distillates, hydrotreated light:	LD_{50} (oral rat) >5000 mg/kg
	LD_{50} (dermal rabbit) >2000 mg/kg
	LC_{50} (inhl rat) >4.3mg/L, 4 hours
d-Limonene:	LD_{50} (oral rat) >5000 mg/kg
	LD_{50} (dermal rabbit) 5000 mg/kg
	RD_{50} 1000 ppm

Aspiration hazard

May be fatal if swallowed and enters airways. Based on physico-chemical properties of the material.

Chronic Exposure:

Reproductive Toxicity:	Not available.
Mutagenicity:	Not available.
Teratogenicity:	Not available.
Specific Target Organ Toxicity (STOT)	No end point data.
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:

Ecotoxicity: No information available.

Aquatic Toxicity: No data available. May be toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Expected to be biodegradable.

12.3 Bioaccumulation potential: No information available

12.4 Mobility in soil: No information 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

Dispose of product in accordance with National and Local Regulations.

14. Transport Information

UN Number:	Not Listed
UN Proper shipping name:	Not Applicable
Transport hazard class(es):	Not Applicable
Packing group:	Not Applicable
Environmental hazards:	None known
Special precautions:	None known
TDG:	Not Regulated
ICAO/IATA-DGR:	Not Regulated
IMDG:	Not Regulated
ADR/RID:	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	**Acute**	**Chronic**	**Fire**	**Pressure**	**Reactive**
	Yes	No	Yes	No	No

	CERCLA/SARA Sec 302		**SARA Sec. 313**
Components	**Hazardous Substance RQ**	**EHS TPQ**	**Toxic Release**

Components are not affected by these Superfund regulations.

NFPA Ratings:

Health:	1
Fire:	2
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.

California Proposition 65
WARNING: This product can expose you to benzene, ethylbenzene, cumene, and naphthalene which are known to the state of California to cause cancer, and toluene and benzene which are known to the State of California to cause birth defects and/or other reproductive harm. For more information, go to www.p65warnings.ca.gov.

European Union
Product complies with the communication requirements of REACH Regulation (EC) No. 1907/2006. All components are listed on the European Inventory of Existing Chemical Substances (EINECS). Contains no substance on the REACH candidate list ≥ 0.1% SCL. Does not contain notified substances from the ELINCS List, Directive 92/32/EEC. Contains no REACH substances with Annex XVII restrictions.

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

Australia
All components are listed on the AICS.
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
LD_{50} = 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

Mixture classification according to Regulation (EC) No 1272/2008:		**Classification Procedure**
H227	Combustible liquid	Physical Testing
H304	May be fatal if swallowed and enters airways	Calculation method.
H317	May cause an allergic skin reaction.	Calculation method.

Revision Date:	March 4, 2022
Revision Number:	7
Supersedes:	September 21, 2018
Locale:	--
Indication of Changes:	Section 8 updated; added PPE pictograms. Written in accordance with the provisions of OSHA 1910.1200 App D (2012) and Canada HPR (SOR/2015-17) (WHMIS 2015). (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.