

1. Identification

Product Identification

Product Identifier: SET-XP (SET-XP10, SET-XP22, SET-XP56, SET-XP650, SET-XP)
Recommended Use: High Strength Anchoring Adhesive for Cracked and Uncracked Concrete

Use Restrictions: None Known.

Company Identification

Company: Simpson Strong-Tie Company Inc. **Address:** 5956 W. Las Positas Blvd.

Pleasanton, CA 94588

Phone:1-800-999-5099Website:www.strongtie.com

Emergency: 1-800-535-5053 (US/Canada) / 1-352-323-3500 (International)

For most current SDS, please visit our website at www.strongtie.com/sds

Hazard Identification

General Information

SET-XP Anchoring Adhesive is a two part system. The two parts of this product have been assessed according to GHS and are classified below. The final hardened material is considered nonhazardous. Some hazards apply upon grinding or cutting through hardened product.

Resin (white side) GHS Classification



Physical Hazards: Not Classified.

Health Hazards: Skin Corrosion/Irritation Category 2

Serious Eye Damage/Irritation Category 2A
Sensitization, Skin Category 1
Germ Cell Mutagenicity Category 2
Chronic Aquatic Environmental Hazard Category 2

Signal Word: WARNING!

Hazard Statements: Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Suspected

of causing genetic defects. Toxic to aquatic life with long lasting effects.

Precautionary Statements:

Environmental Hazards:

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read

and understood. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace. Avoid breathing mist or

vapor. Wash thoroughly after handling. Avoid release to the environment.

Response: If exposed or concerned: Call a poison center/doctor. If on skin: Wash with plenty of water. If skin

irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before re-use. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Collect Spillage.

Storage: Store locked up. Store in a well-ventilated place. Store between 45-90°F (7-32°C).

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

Hardener (green side) GHS Classification



Physical Hazards: Not Classified.

Health Hazards:Skin Corrosion/IrritationCategory 1Serious Eye Damage/IrritationCategory 1Sensitization, SkinCategory 1

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Germ Cell Mutagenicity

Environmental Hazards: Acute Aquatic Environmental Hazard

Acute Aquatic Environmental Hazard Category 3
Chronic Aquatic Environmental Hazard Category 3

Signal Word: DANGER!

Hazard Statements: Causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of

causing genetic defects. Harmful to the aquatic environment with long lasting effects.

Precautionary Statements:

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read

and understood. Wash thoroughly after handling. Do not eat, drink or smoke when using this product, Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. In case of inadequate ventilation wear respiratory protection. Avoid release to the

Category 2

environment.

Response: If exposed or concerned: Get medical advice/attention. If swallowed: Rinse mouth, Do not induce

vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. Immediately call a poison center/doctor.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store between 45-90°F (7-32°C).

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

Hazards Not Otherwise Classified (HNOC)

The above hazards are for the uncured Resin component of SET-XP. Upon combination with the Hardener component of SET-XP an innocuous solid is formed which does not present any immediate hazards. Upon grinding or cutting the cured product the following hazards may apply.



Health Hazards:

Carcinogenicity

Category 1A

STOT, Repeated Exposure

Category 2 (Lung)

Hazard Statements:

May cause cancer. May cause damage to organs (Lung) through prolonged or repeated exposure.

Precautionary Statements: D

Do not breathe dust.

Composition Information

General Information

This product is a mixture. Hazardous ingredients for each component are listed below. May include other nonhazardous ingredients. May include other trace ingredients, see Section 15.

Resin (white side)

| Chemical Name | CAS Number | Weight % |
|---|------------|----------|
| Bisphenol A/Epichlorohydrin | 25068-38-6 | 40-60 |
| Phenol, polymer with formaldehyde, glycidyl ether | 28064-14-4 | 40-60 |
| Butyl Glycidyl Ether | 2426-08-6 | 1-10 |
| Titanium Dioxide | 13463-67-7 | 1-10 |

Hardener (black side)

| Chemical Name | CAS Number | Weight % | |
|---------------------------------------|------------|----------|--|
| Silica, crystalline quartz | 14808-60-7 | 20-30 | |
| Polyamido Amine | 68953-36-6 | 10-20 | |
| 2,4,6-Tris(dimethylaminomethyl)phenol | 90-72-2 | 1-10 | |
| Dimethyl silicone polymer with silica | 67762-90-7 | 1-10 | |
| Phenol | 108-95-2 | 1-10 | |
| Benzene-1,3-Dimethaneamine | 1477-55-0 | 1-10 | |
| 3,6,9-triazaundecamethylenediamine | 112-57-2 | 1-5 | |

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4. First-Aid Measures

General Information

Provide general supportive measures and treat symptomatically. Symptoms may be delayed. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If exposed or concerned: Get medical advice/attention. Wash contaminated clothing before reuse.

Routes of Exposure

Eye Contact: Immediately flush eyes with plenty of cool water for at least 15 minutes while holding the eyes

open. Remove contact lenses if present and easy to do. If redness, burning, blurred vision, or

swelling persists, consult a physician.

Skin Contact: Remove contaminated clothing and product, immediately wash affected area with soap and water.

Do not apply greases or ointments. Chemical burns must be treated by a physician.

Ingestion: Rinse mouth immediately. Give large amounts of milk or water, if person is conscious. Only induce

vomiting at the instruction of medical personnel. Consult a physician.

Inhalation: Remove patient to fresh air. Oxygen or artificial respiration if needed. If patient continues to

experience difficulty breathing, consult a physician.

Most Important Symptoms

Irritant effects. Symptoms include itching, burning, redness and tearing. Burning pain and severe corrosive skin damage. Causes severe eye damage. May cause temporary blindness and severe eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause allergic skin reaction. Prolonged exposure may cause chronic effects.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

Additional Information:

Extinguish with foam, carbon dioxide, dry powder, or water fog. None known.

Hazards during Fire-Fighting:

Hazardous decomposition products may occur when materials polymerize at temperatures

above500°F (260°C). Irritating and toxic gases/fumes may be released during a fire. Water run-off

can cause environmental damage.

Fire-Fighting Procedures:

Use standard fire-fighting procedures and consider the hazards of other involved materials. In case of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn. Move containers from fire area if you can do so without risk. Cool containers with flooding quantities of water until well after fire is out. Prevent runoff from fire control

or dilution from entering streams, sewers, or drinking water supply.

6. Accidental Release Measures

Personal Precautions

Keep unnecessary personnel away. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors or mists. Local authorities should be advised if significant spillages cannot be contained.

Clean-Up Methods

Small spills: Wipe up with absorbent material (e.g. cloth, fleece).). Place in leak-proof containers. Seal tightly

for proper disposal. Clean surface thoroughly to remove residual contamination.

Large spills: Stop the flow of material, if this is without risk. Dike far ahead of spill for later disposal. Use a non-

combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Prevent entry into

waterways, sewer, basements or confined areas.

Environmental Precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment.

7. Handling and Storage

Handling

Mechanical ventilation or local exhaust ventilation is recommended. Keep away from open flames, hot surfaces and sources of ignition. Wear appropriate personal protective equipment. When using, do not eat, drink or smoke. Avoid contact with eyes, skin, and clothing. Pregnant women should not work with this product if there is risk of exposure. Observe good industrial hygiene practices.

Storage

Store in a closed container away from incompatible materials. Keep in original container. Store in a dry place out of direct sunlight. Keep out of the reach of children. Store between 45-90°F (7-32°C). Keep away from heat and sources of ignition.

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8. Exposure Controls / Personal Protection

Personal Protective Equipment

Protective Measure: Wear appropriate personal protective equipment.

Eye Protection: Wear chemical splash goggles or safety glasses with side shield. **Hand Protection:** Wear chemical-resistant gloves such as: Nitrile, neoprene, butyl.

Skin and Body Protection: Wear long sleeve shirt/long pants and other clothing as required to minimize contact.

Respirator Protection: The use of a respirator is not required during normal use of this product. If grinding or cutting cured

product the use of an approved respirator is recommended.

General Hygiene: Always observe good personal hygiene measures, such as washing after handling the material and

before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to

remove contaminants.

Engineering Controls

When using indoors good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Ready access to running water is required. Provide eyewash station.

Exposure Limits

| Component *Skin Designation | OSHA | ACGIH | NIOSH | |
|---|---|--------------------------|-------------------------|--|
| | (PEL) | (TLV) | Pocket Guide | |
| Quartz (14808-60-7) | 0.3 mg/m³(total dust) 0.1 mg/m³ (respirable) | 0.025 mg/m³ (respirable) | 0.05 mg/m³ (respirable) | |
| Phenol* | 19 mg/m³ | 5 ppm | 60 mg/m³ (Ceiling) | |
| (CAS 108-95-2) | 5 ppm | | 15.6 ppm (Ceiling) | |
| m-Phenylenebis(methylamine)* (CAS 1477-55-0) | N/E | 0.1 mg/m³ (Ceiling) | 0.1 mg/m³ (Ceiling) | |
| N-Butyl Glycidyl Ether | 270 mg/m³ | 3 ppm | 30 mg/m³ (Ceiling) | |
| (2426-08-6) | 50 ppm | | 5.6 ppm (Ceiling) | |
| Titanium Dioxide (13463-67-7) | 5 mg/m³(respirable) 15 mg/m³(total dust) | 10 mg/m³ | N/E | |

Additional Information

After Cure:

Product forms an innocuous solid. Processing after cure (grinding or cutting) may produce dust containing compounds that present an inhalation hazard.

9. Physical and Chemical Properties

Hardener **Property** Resin **Physical State:** Liquid, Paste Liquid, Paste Color: White Dark Green Ammonia Odor: Sweet 10.3 6.9 pH: No data No data Flammability limit - lower %: No data Flammability limit - upper %: No data No data Vapor Pressure: Non-volatile No data No data Vapor Density:

Solubility: Insoluble in water Slightly soluble in water

Freezing/Melting Point: No data No data

Boiling Point: > 500 °F (>260 °C) No data

Flash Point: 250 °F (121 °C) Open Cup 262 °F (128 °C) Closed Cup

Evaporation Rate: No data No data

Decomposition Temperature: No data No data

Specific Gravity: 1.21 at 72°F (22°C) 1.59 at 72°F (22°C)

 VOC (after cure):
 3 g/L
 3 g/L

 Kow:
 No data
 No data

 Viscosity:
 No data
 No data



10. Stability and Reactivity

Resin (white side)

Reactivity: This product is stable and non-reactive under normal conditions.

Chemical Stability: Stable under normal storage conditions.

Condition to Avoid: High heat and open flame.

Substances to Avoid: Oxidizing agents, acids, organic bases, and amines

Hazardous Reactions: Hazardous polymerization does not occur.

Decomposition Products: Carbon dioxide, carbon monoxide, oxides of nitrogen, and other organic compounds.

Hardener (green side)

Reactivity: This product is stable and non-reactive under normal conditions.

Chemical Stability: Stable under normal storage conditions.

Condition to Avoid: High heat and open flame.

Substances to Avoid: Strong oxidizing agents. Peroxides. Phenols. Acids.

Hazardous Reactions: Hazardous polymerization does not occur.

Decomposition Products: Carbon dioxide, carbon monoxide, oxides of nitrogen, and other organic compounds.

11. Toxicological Information

Likely Routes of Exposure

Ingestion: May be harmful if swallowed, Ingestion may cause irritation to the gastrointestinal tract.

Inhalation: May cause respiratory irritation

Skin contact: Causes skin irritation. Causes severe skin burns May cause an allergic skin reaction.

Eye contact: Causes serious eye irritation. Causes severe eye damage.

Information on Toxicological Effects

Acute toxicity: Occupational exposure to the substance or mixture may cause adverse effects.

| Product | Species | Test Result |
|-------------------------------|---------|-------------|
| SET-XP Resin (CAS mixture) | | |
| Acute, Dermal, LC50 | Rabbit | >2000 mg/kg |
| Acute, Oral, LD50 | Rat | >5000 mg/kg |
| SET-XP Hardener (CAS mixture) | | 0 0 |
| Acute, Dermal, LD50 | Rabbit | >2000 mg/kg |
| Acute, Oral, LD50 | Rat | >5000 mg/kg |

Skin corrosion/irritation: Causes severe skin burns.

Eye damage/eye irritation: Causes severe eye damage.

Respiratory sensitization: No data available.

Skin sensitization: May cause an allergic skin reaction.

Germ cell mutagenicity: Contains a component that is suspected of causing genetic defects.

Carcinogenicity: May cause cancer. Quartz and Titanium Dioxide are considered carcinogens only in their inhalable

form. Exposure to respirable Quartz and Titanium Dioxide is likely only when grinding or cutting cured product, ensure good work practice and use of personal protective equipment as needed to

control exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity

Quartz (14808-60-7) 1 Carcinogenic to humans.

Titanium Dioxide (13463-67-7) 2B Possibly Carcinogenic to humans.

Phenol (108-95-2) 3 Not classifiable as to carcinogenicity in humans.

NTP Report on Carcinogens

Quartz (14808-60-7) Known to be Human Carcinogen

Reproductive toxicity: The available data does not indicate that any ingredients of this product are reproductive toxins.

Aspiration hazard: Not expected to be an aspiration hazard.

Specific target organ toxicity:

Single exposure No data available.

Repeated exposure May cause damage to organs (lung) through prolonged or repeated exposure.

Further Information

Toxicological, ecotoxicological, physical, and chemical properties may not have been fully investigated. Hazard data above is estimated based on best available information. Some workers with pre-existing medical conditions such as: asthma, allergies, or impaired pulmonary and/or liver functions, or who may be particularly susceptible to this material, may be affected by exposure to this material.

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12. Ecological Information

General Information

Information given is based on data on the components and the ecotoxicology of similar products. Resin is classified as toxic to aquatic life with long lasting effects. Hardener is classified as harmful to aquatic life with long lasting effects. Avoid release to the environment.

Supporting Data

| Component | Species | Test Result |
|--------------------------------|---------------|------------------------|
| SET-XP Resin (CAS mixture) | | |
| Aquatic Acute, Algae, EC50 | Algae | >1000 mg/l, 72 hours |
| Aquatic Acute, Crustacea, EC50 | Daphnia Magna | 324.87 mg/l, 48 hours |
| Aquatic Acute, Fish, LC50 | Fish | 707.11 mg/l, 96 hours |
| Phenol (108-95-2) | | · |
| Aquatic, Crustacea, EC50 | Daphnia | 4.7-6.4 mg/l, 48 hours |
| Aquatic, Fish, LC50 | Rainbow trout | 7.5-14 mg/l, 96 hours |

Persistence and degradability:

This product is not expected to be readily biodegradable.

Bioaccumulative potential:

No data available for this product.

Partition coefficient n-octanol / water (log Kow)
Butyl glycidyl ether (2426-08-6) 0.63
Phenol (108-95-2) 1.46

Mobility in soil:

This product is non-volatile.

Further information

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this product.

13. Disposal Consideration

Waste Disposal of Substance: Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds,

waterways or ditches with chemical or used container. Dispose of contents/container in accordance

with local/regional/national/international regulations.

Container Disposal: Empty containers or liners may retain some product residues; follow label warnings even after

container is emptied. Empty containers should be taken to an approved waste handling site for

recycling or disposal.

Disposal of Cured Product: Grind or chip off surface. Solid material does not require special disposal.

14. Transportation Information

Resin (white side)

UN number: UN3082

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(Bisphenol-A-Epichlorohydrin), 9, III, Marine Pollutant

Precautions: Marine Pollutant

Required Labels: 9
ERG Code (IATA): 9L
EmS (IMDG): F-A, S-F

Hardener (black side)

UN number: UN2735

UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (Benzene-1,3-Dimethaneamine), 8, II

Precautions: Corrosive

Required Labels: 8
ERG Code (IATA): 8L
EmS (IMDG): F-A, S-B

Additional Information

Check limited quantity regulations prior to shipping, SET-XP cartridges may qualify for LQ shipping exemptions.

Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

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Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

This substance/mixture is not intended to be transported in bulk

This information does not cover all specific regulatory or operational requirements of this product. The classifications for transportation may vary by container volume or different regional or national regulations.

15. Regulatory Information

United States

Federal Regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4):

Phenol (108-95-2) LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

| Hazard Categories: | Immediate | Delayed | Fire | Pressure | Reactivity |
|--------------------|-----------|---------|------|----------|------------|
| Resin | Yes | Yes | No | No | No |
| Hardener | Yes | Yes | No | No | No |

SARA 302 Extremely hazardous substance:

No

SARA 311/312 Hazardous chemical:

Yes

SARA 313 (TRI reporting):

| Chemical Name | CAS Number | % by weight |
|---------------|------------|-------------|
| Phenol | 108-95-2 | 1-10 |

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Phenol (108-95-2)

US State Right-To-Know Lists

| Chemical | Massachusetts RTK | New Jersey Work and Community RTK Act | Pennsylvania Worker and Community RTK Law | Rhode Island RTK |
|--|----------------------|--|--|---------------------|
| Butyl glycidyl ether (CAS 2426-08-6) | Listed | | Listed | |
| Titanium dioxide (CAS 1317-80-2) | Listed | | Listed | |
| m-Phenylenebis(methylamine) (CAS 1477-55-0) | Listed | | Listed | |
| Phenol (CAS 108-95-2) | Listed | Listed | Listed | Listed |
| Quartz (CAS14808-60-7) | Listed | | Listed | |

US. California Proposition 65: WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects or reproductive harm.

| Component | Regulation | % In Blend (approx.) | Remark |
|-----------------------------------|------------|----------------------|--------------|
| Titanium dioxide (CAS 13463-67-7) | ACGIH | 1-10 | Carcinogenic |
| Quartz (14808-60-7) | ACGIH | 20-30 | Carcinogenic |
| Carbon Black (1333-86-4) | ACGIH | < 0.1 | Carcinogenic |

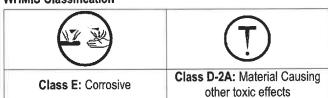
Canada

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

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WHMIS Classification



International

International Inventories

| Country or Region | Inventory | On Inventory? (Yes/No) |
|--------------------------------|--|---------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

16. Other Information

Date Prepared or Revised:

December 2014

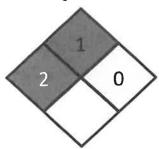
Supersedes:

September 2014

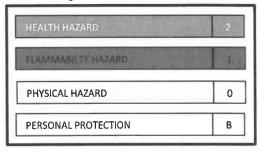
Contact Simpson Strong-Tie Environmental Health and Safety at EHS@strongtie.com

Additional Resin (white side) Classifications

NFPA Ratings

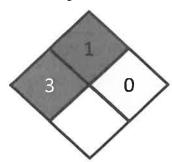


HMIS Rating

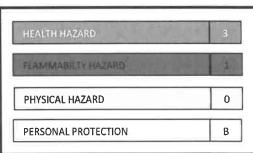


Additional Hardener (green side) Classifications

NFPA Ratings



HMIS Rating



Abbreviations

ACGIH:

American Conference of Governmental Industrial Hygienists

CAS No.:

Chemical Abstract Service Registry Number

CERCLA:

Comprehensive Environmental Response, Compensation and Liability Act (U.S. EPA)



CPR: Controlled Product Regulations (Canada)

DOT: Department of Transportation (U.S.)

EPA: Environmental Protection Agency (U.S.)

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

HEPA: High-Efficiency Particulate Air

HMIS: Hazardous Materials Identification System
 IARC: International Agency for Research on Cancer
 IATA: International Air Transport Association
 IMDG: International Maritime Dangerous Goods code

LPP: Limité Permisible Ponderado (Chile)

NIOSH: National Institute of Occupational Safety and Health (U.S.)

NFPA: National Fire Protection Association (US)
NTP: National Toxicology Program (US)

OSHA: Occupational Safety and Health Administration (U.S.)

PEL: Permissible Exposure Limit

SARA: Superfund Amendments and Reauthorization Act (U.S. EPA)

SDS: Safety Data Sheet

STEL: Short Term Exposure Limit (15 minute Time Weighted Average)

STOT: Specific Target Organ Toxicity (GHS Classification)

TLV: Threshold Limit Value

TSCA: Toxic Substances Control Act (U.S.)

TWA: Time Weighted Average (exposure for 8-hour workday)

U.S.: United States

VOC: Volatile Organic Compounds

WHMIS: Canadian Workplace Hazardous Materials Information System

Disclaimer

This Safety Data Sheet (SDS) is prepared by Simpson Strong-Tie Co. in compliance with the requirements of OSHA 29 CFR Part 1910.1200. The information it contains is offered in good faith as accurate as of the date of this SDS. This SDS is provided solely for the purpose of conveying health, safety, and environmental information. No warranty, expressed or implied, is given. Health and Safety precautions may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations.

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FOR INTERNAL USE ONLY

SET-XP Resin:

XCOM3B - 50% Cartridge

SET-XP Hardener:

XCOM3B – 50% Cartridge XCORR – 50% Cartridge