SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: Insituform® CIPP (Uncured)

Product Code: Impregnated Insitutube Product (Polyester Filled)

1.2. Intended Use of the Product

Use of the substance/mixture: Sewer rehabilitation. For professional use only.

1.3. Name, Address, and Telephone of the Responsible Party

Company

Insituform Technologies, LLC
17988 Edison Ave.
Chesterfield, MO 63005
T: 636.530.8000
www.insituform.com

1.4. Emergency Telephone Number

Emergency Number : 877.576.2653

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Classification (GHS-US)

Flam. Liq. 3	H226
Skin Irrit. 2	H315
Eye Irrit. 2A	H319
Skin Sens. 1	H317
Carc. 2	H351
STOT SE 3	H335
STOT RE 1	H372
Asp. Tox. 1	H304

Full text of H-phrases: see section 16

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :

GHS02 GHS07 GHS08

Signal Word (GHS-US) : Danger

Hazard Statements (GHS-US) : H226 - Flammable liquid and vapor.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.
H351 - Suspected of causing cancer.
H372 - Causes damage to organs through prolonged or repeated exposure.

Precautionary Statements (GHS-US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from extremely high or low temperatures, ignition sources, and incompatible materials. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical, ventilating, and lighting equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe vapors, mist, or spray.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.

P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, and eye protection.
P301+P310 - IF SWALLOWED: Immediately call a poison center or doctor.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P331 - Do NOT induce vomiting.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO_2), extinguishing powder to extinguish.
P391 - Collect spillage.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

2.3. Other Hazards

This material contains organic peroxides. Heating may cause hazardous decomposition. Hazardous decomposition products from peroxides are flammable and can be explosive under confinement. Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture

Name	Product Identifier	%	Classification (GHS-US)
Styrene	(CAS No) 100-42-5	< 45	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation: vapor), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 2, H351 STOT SE 3, H335 STOT RE 1, H372 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 3, H412
Talc	Proprietary	<= 30	Not classified
Proprietary 1 – Organic Peroxide	Proprietary	<= 3	Org. Perox. C, H242 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Proprietary 2 – Organic Peroxide	Proprietary	<= 3	Org. Perox. D, H242 Skin Sens. 1, H317

Proprietary 3 – Organic Peroxide	Proprietary	<= 3	Org. Perox. C, H242 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
Proprietary 4 – Organic Peroxide	Proprietary	<= 3	Org. Perox. C, H242 Skin Sens. 1, H317 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
Proprietary 5 – Organic Peroxide	Proprietary	<= 3	Org. Perox. B, H241
Proprietary 6 – Organic Peroxide	Proprietary	<= 3	Org. Perox. D, H242 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Butylcyclohexanol	Proprietary	<= 1.5	Eye Irrit. 2A, H319 Aquatic Acute 3, H402
Quartz	Proprietary	<= 1	Carc. 1A, H350* STOT SE 3, H335 STOT RE 1, H372
Alkanes	Proprietary	<= 1	Asp. Tox. 1, H304 Aquatic Chronic 4, H413
Isododecane	Proprietary	<= 1	Asp. Tox. 1, H304
Titanium dioxide	Proprietary	<= 0.5	Carc. 2, H351**

*Evidence indicates that quartz dust causes cancer and lung disease when inhaled over an extended period of time. Since this product is in a liquid form, the quartz dust is not able to become airborne and cannot be inhaled. Thus, the hazards usually associated with quartz dust are not applicable to this product.

**Titanium dioxide is suspected of causing cancer through inhalation. Since this product is in a liquid form, titanium dioxide is not able to become airborne and cannot be inhaled. Thus, the hazards usually associated with titanium dioxde dust are not applicable to this product.

The specific chemical identity and/or exact percentage of composition has been withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200].

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

First-aid Measures General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

First-aid Measures After Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

First-aid Measures After Skin Contact: Remove contaminated clothing. Drench affected area with water or soap and water for at least 15 minutes. Wash contaminated clothing before reuse. Obtain medical attention if irritation develops or persists.

First-aid Measures After Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

First-aid Measures After Ingestion: Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/Injuries: Causes serious eye irritation. Causes skin irritation. May cause an allergic skin reaction. Suspected of causing cancer. Causes damage to organs through prolonged or repeated exposure. May cause respiratory irritation. May be fatal if swallowed and enters airways.

Symptoms/Injuries After Inhalation: Sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing.

Symptoms/Injuries After Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Injuries After Eye Contact: Redness, pain, swelling, itching, burning, tearing, and blurred vision.

Symptoms/Injuries After Ingestion: The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

Chronic Symptoms: Repeated or prolonged inhalation of fumes or vapors may result in hearing loss. Suspected of causing cancer. Chronic exposure may cause defatting of the skin.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Carbon dioxide (CO_2), alcohol-resistant foam, or dry chemical.

Unsuitable Extinguishing Media: Do not use halons. Do not use a heavy water stream. Use of heavy stream of water may spread fire. Application of water stream to hot product may cause frothing and increase fire intensity.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Flammable liquid and vapor. Vapors may travel to source of ignition and flash back.

Explosion Hazard: May form flammable/explosive vapor-air mixture.

Reactivity: This material contains organic peroxides. Heating may cause hazardous decomposition. Hazardous decomposition products from peroxides are flammable and can be explosive under confinement. May react violently with incompatible materials.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Other Information: Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid all contact with skin, eyes, or clothing. Avoid breathing (dust, vapor, mist, spray. Keep away from heat, sparks, open flames, hot surfaces. – No smoking.

6.1.1. For Non-emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Responders

Protective Equipment: If specialize clothing is required to deal with spillage, take note of any information in Section 8 on suitable and unsuitable materials. Use appropriate personal protection equipment (PPE).

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental Precautions

Avoid dispersal of spilled material.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Contain and/or absorb spill with inert material, then place in suitable container. Do not take up in combustible material such as saw dust or cellulosic material.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Spills should be contained with mechanical barriers. Transfer spilled material to a suitable container for disposal. Use only non-sparking tools. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Heading 8. Exposure controls and personal protection. For further information refer to Section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Flammable vapors can accumulate in head space of closed systems. Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained. Proper grounding procedures to avoid static electricity should be followed.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Ground/bond container and receiving equipment. Use only non-sparking tools. Use explosion-proof electrical, ventilating, and lighting equipment.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Incompatible Products: Strong acids. Strong bases. Strong oxidizers. Accelerators. Heavy metals. Heavy metal salts. Reducing agents. Rust. Amines. Sulfur compounds.

7.3. Specific End Use(s)

Sewer rehabilitation. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), or OSHA (PEL).

Styrene (100-42-5)		
USA ACGIH	ACGIH TWA (ppm)	20 ppm
USA ACGIH	ACGIH STEL (ppm)	40 ppm
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA NIOSH	NIOSH REL (TWA) (mg/m³)	215 mg/m³
USA NIOSH	NIOSH REL (TWA) (ppm)	50 ppm
USA NIOSH	NIOSH REL (STEL) (mg/m³)	425 mg/m³
USA NIOSH	NIOSH REL (STEL) (ppm)	100 ppm
USA IDLH	US IDLH (ppm)	700 ppm
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm
USA OSHA	OSHA PEL (Ceiling) (ppm)	200 ppm

Quartz		
USA ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
USA ACGIH	ACGIH chemical category	A2 - Suspected Human Carcinogen
USA NIOSH	NIOSH REL (TWA) (mg/m³)	0.05 mg/m³ (respirable dust)
USA IDLH	US IDLH (mg/m³)	50 mg/m³ (respirable dust)
USA OSHA	OSHA PEL (STEL) (mg/m³)	250 mppcf/%SiO_2+5, 10mg/m^3/%SiO_2+2

Titanium dioxide		
USA ACGIH	ACGIH TWA (mg/m³)	10 mg/m³
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA IDLH	US IDLH (mg/m³)	5000 mg/m³
USA OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total dust)

Talc		
USA ACGIH	ACGIH TWA (mg/m³)	2 mg/m³ (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen containing no asbestos fibers
USA NIOSH	NIOSH REL (TWA) (mg/m³)	2 mg/m³ (containing no Asbestos and <1% Quartz-respirable dust)
USA IDLH	US IDLH (mg/m³)	1000 mg/m³ (containing no asbestos and <1% quartz)

8.2. Exposure Controls

Appropriate Engineering Controls : Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Gas detectors should be used when flammable gases or vapors may be released. Use explosion-proof equipment. Ensure all national/local regulations are observed.

Personal Protective Equipment : Gloves. Insufficient ventilation: wear respiratory protection. Safety glasses.

Materials for Protective Clothing	: When a risk assessment indicates protective clothing is necessary, chemically resistant materials and fabrics should be used.
Hand Protection	: Wear chemically resistant protective gloves.
Eye Protection	: Chemical safety glasses.
Skin and Body Protection	: Personal protective equipment for the skin and body should be selected based on the task being performed and when a risk assessment indicates this is necessary.
Respiratory Protection	: If exposure limits are exceeded or if a risk assessment indicates it is necessary, approved respiratory protection should be worn.
Environmental Exposure Controls	: Do not allow the product to be released into the environment.
Consumer Exposure Controls	: Do not eat, drink or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Transparent, white, blue coated felt impregnated with putty-like, semi-solid liquid
Odor	: Aromatic
Odor Threshold	: No data available
pH	: No data available
Evaporation Rate	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: No data available
Flash Point	: 31 °C (87.8 °F) (TCC)
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20 °C	: No data available
Relative Density	: No data available
Solubility	: No data available
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: No data available

9.2. Other Information No additional information available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: This material contains organic peroxides. Heating may cause hazardous decomposition. Hazardous decomposition products from peroxides are flammable and can be explosive under confinement. May react violently with incompatible materials.

10.2. Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions: Hazardous polymerization may occur.

10.4. Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Sparks, heat, open flame and other sources of ignition. Incompatible materials.

10.5. Incompatible Materials: Strong acids. Strong bases. Strong oxidizers. Accelerators. Heavy metals. Heavy metal salts. Reducing agents. Rust. Amines. Sulfur compounds.

10.6. Hazardous Decomposition Products: Benzoic acid. Tert-butanol. Acetone. Benzene. Methane. 3,3,5-trimethylcyclohexane. Thermal decomposition generates: Carbon oxides (CO, CO_2). Nitrogen oxides. Hydrocarbons. Alcohols. Metal oxides. Methylene Diphenyl Diisocyanate (MDI). Organic compounds. Irritating or toxic vapors.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information On Toxicological Effects

Acute Toxicity: Not classified

Styrene (100-42-5)	
LD50 Oral Rat	1000 mg/kg
LC50 Inhalation Rat	11.7 mg/l/4h

Quartz	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rat	> 5000 mg/kg

Proprietary 3 – Organic Peroxide	
ATE (Dust/Mist)	1.50 mg/l/4h

Butylcyclohexanol	
LD50 Oral Rat	4200 mg/kg
LD50 Dermal Rabbit	> 5 g/kg

Titanium dioxide	
LD50 Oral Rat	> 10000 mg/kg

Skin Corrosion/Irritation: Causes skin irritation.

Serious Eye Damage/Irritation: Causes serious eye irritation.

Respiratory or Skin Sensitization: May cause an allergic skin reaction.

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Suspected of causing cancer.

This product contains styrene, which results in the category 2 carcinogen classification. Classifications of styrene from IARC, NTP, and the OSHA Hazard Communication Carcinogen List are shown below. The 13th Report on Carcinogens by the National Toxicology Program classified styrene as "reasonably anticipated to be a human carcinogen based on limited evidence of carcinogenicity from studies in humans, sufficient evidence of carcinogenicity from studies in experimental animals, and supporting data on mechanisms of carcinogenesis" (NTP. 2014. *Report on Carcinogens, Thirteenth Edition*). Additional studies have been conducted with mixed results regarding the carcinogencity hazard associated with Styrene.

1) A published study suggested that "S-induced mouse lung tumors are unlikely to be relevant to human risk" (*Regulatory Toxicology and Pharmacology.* 2013 June; 66 (1)).

2) A recent update to an extensive study of reinforced plastic workers found "no coherent evidence that styrene exposure increases risk from cancers of the lymphatic and hematopoietic tissue, pancreas, or lung" (*Epidemiology.* 2013 March*;* 24 (2)).

Based on the weight of evidence and supplier information, styrene was classified as a category 2 carcinogen.

Styrene (100-42-5)	
IARC group	2B
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

Quartz	
IARC group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

Titanium dioxide	
IARC group	2B
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

Talc	
IARC group	3
National Toxicology Program (NTP) Status	Evidence of Carcinogenicity, Twelfth Report - Items under consideration.

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.

Specific Target Organ Toxicity (Repeated Exposure): Causes damage to organs (ears) through prolonged or repeated exposure (Inhalation).

Aspiration Hazard: May be fatal if swallowed and enters airways.

Symptoms/Injuries After Inhalation: Sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing.

Symptoms/Injuries After Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Injuries After Eye Contact: Redness, pain, swelling, itching, burning, tearing, and blurred vision.

Symptoms/Injuries After Ingestion: The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

Chronic Symptoms: Repeated or prolonged inhalation of fumes or vapors may result in hearing loss. Suspected of causing cancer. Chronic exposure may cause defatting of the skin.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General : This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

Ecology - Water : Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Styrene (100-42-5)	
LC50 Fish 1	3.24 - 4.99 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	3.3 - 7.4 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	19.03 - 33.53 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
NOEC (acute)	44 mg/kg (Exposure time: 14 Days - Species: Eisenia foetida [soil dry weight])

Proprietary 2 – Organic Peroxide	
EC50 Daphnia 1	> 100 g/l
ErC50 (algae)	> 100 mg/l (Exposure Time: 72 h - Species: Raphidocelis subcapitata)
NOEC chronic algae	100 mg/l (Species: Pseudokirchnerella subcapitata)

Butylcyclohexanol	
EC50 Daphnia 1	46 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Talc	
LC50 Fish 1	> 100 g/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])

12.2. Persistence and Degradability

No additional information available.

12.3. Bioaccumulative Potential

Styrene (100-42-5)	
BCF fish 1	13.5
Log Pow	2.95

Butylcyclohexanol	
Log Pow	3.23

Talc	
BCF fish 1	(no known bioaccumulation)

12.4. Mobility in Soil

No additional information available.

12.5. Other Adverse Effects

Other Information : Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, and international regulations.

Additional Information: Handle empty containers with care because residual vapors are flammable.

Ecology – Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

14.1. In Accordance with DOT

Proper Shipping Name : RESIN SOLUTION flammable

Hazard Class : 3

Identification Number : UN1866

Label Codes : 3

Packing Group : III

ERG Number : 127

14.2. In Accordance with IMDG

Proper Shipping Name : RESIN SOLUTION

Hazard Class : 3

Identification Number : UN1866

Packing Group : III

Label Codes : 3

EmS-No. (Fire) : F-E

EmS-No. (Spillage) : S-E

14.3. In Accordance with IATA

Proper Shipping Name	:	RESIN SOLUTION
Packing Group	:	III
Identification Number	:	UN1866
Hazard Class	:	3
Label Codes	:	3
ERG Code (IATA)	:	3L

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations

Insituform® CIPP (Uncured)	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Fire hazard Reactive hazard

Styrene (100-42-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on United States SARA Section 313	
SARA Section 313 - Emission Reporting	0.1 %

Quartz	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard

Proprietary 2 – Organic Peroxide
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Proprietary 1 – Organic Peroxide
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Proprietary 3 – Organic Peroxide
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Proprietary 5 – Organic Peroxide
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Alkanes
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Isododecane
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Proprietary 4 – Organic Peroxide
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Butylcyclohexanol
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Titanium dioxide	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard

Talc (14807-96-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Proprietary 6 – Organic Peroxide (686-31-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2 US State Regulations

Quartz	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.

Titanium dioxide	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.

Styrene (100-42-5)
U.S. - Massachusetts - Right To Know List

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Quartz
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Proprietary 3 – Organic Peroxide
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Titanium dioxide
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Talc
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

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

Revision Date : 08/10/2015

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200. This document has been prepared in accordance with standards for workplace safety. The precautionary statements and warnings included might not apply in all cases. Your needs may vary depending on the potential for exposure in your workplace.

GHS Full Text Phrases:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Inhalation:vapor)	Acute toxicity (inhalation:vapor) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Aquatic Chronic 4	Hazardous to the aquatic environment - Chronic Hazard Category 4
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1A	Carcinogenicity Category 1A
Carc. 1B	Carcinogenicity Category 1B
Carc. 2	Carcinogenicity Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 3	Flammable liquids Category 3
Org. Perox. B	Organic Peroxide Category B
Org. Perox. C	Organic Peroxide Category C
Org. Perox. D	Organic Peroxide Category D
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H226	Flammable liquid and vapor
H241	Heating may cause a fire or explosion

H242	Heating may cause a fire
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H350	May cause cancer
H351	Suspected of causing cancer
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SDS US (GHS HazCom)