SAFETY DATA SHEET

REVISION DATE 07/OCT/2019

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier
Product Description: **ENVIROSNAP 8010**
Vinyl Hybrid CIPP Resin

Other means of identification
Chemical Family Vinyl Ester Resin Vinyl Hybrid

Recommended use of the chemical and restrictions on use
Recommended Use **CIPP**
Uses advised against **No information available**

Details of the supplier of the safety data sheet
Manufacturer/Supplier:

PMW Technologies
2011 Oakbrooke Court
Avon, IN 46123
Phone: 888-595-1780
fax: 317-324-9023

Emergency Telephone USA 1-800-535-5053 for International 1-352-323-3500
E-mail address customerservice@pmwtechs.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Reproductive toxicity	Category 2

Label elements

Emergency Overview

Warning

Hazard statements
Harmful if swallowed
Causes skin irritation
Causes serious eye irritation
Suspected of damaging fertility or the unborn child

Appearance Amber / Opaque Clear **Physical** State Viscous liquid **Odor** Mild Odorless

Precautionary Statements - 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
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
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
IF ON SKIN: Wash with plenty of water and soap
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash it before reuse
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell
Rinse mouth

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to industrial incineration plant
Dispose of in accordance with federal, state and local regulations

Hazards not otherwise classified (HNOC)
Not applicable

Other Information
May be harmful in contact with skin

Unknown acute toxicity 91.6 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Status	Trade Secret
Vinyl Hybrid Resin	Proprietary	94 - 98	Not Hazardous	
Methacrylic Acid	79-41-4	1 - 3	Hazardous	
Silica, Amorphous, Fumed, Cryst.-Free	112945-52-5	1 - 3	Hazardous	
Toluene	108-88-3	< 0.5	Hazardous	

If CAS number is "proprietary", the specific chemical identity has been withheld as a trade secret

4. FIRST AID MEASURES

First Aid Measures

Eye Contact Move individual away from exposure. Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

Skin Contact Wash off immediately with soap and plenty of water. Take off contaminated clothing and wash before reuse. Get medical attention if irritation develops and persists.

Inhalation Remove person to fresh air. If signs/symptoms continue, get medical attention.

Ingestion Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Seek immediate medical attention/advice

Most important symptoms and effects, both acute and delayed

Most Important Symptoms & Effects Inhalation of high vapor concentrations can cause central nervous system depression and narcosis. No information available. Irritating to eyes, respiratory system and skin.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO2), Foam, Dry chemical, Water spray, Water or foam may cause frothing

Unsuitable Extinguishing Media

Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Hazardous combustion products Carbon monoxide, Carbon dioxide (CO2)

Combustion/explosion hazards Flammable. Vapors may form explosive mixtures with air. Flash back possible over considerable distance. Empty containers may retain product residue (liquid and/or vapor). Do not pressurize, cut, weld, braze, solder, drill, grind, or expose these containers to heat, flame, sparks, static electricity, or other sources of ignition as the container may explode and may cause injury or death. Empty drums should be completely drained and properly bunged. Empty drums should be promptly returned to a drum reconditioner or properly disposed. Closed containers may rupture when exposed to extreme heat.

Protective Equipment and Precautions for Firefighters

Wear self-contained breathing apparatus (SCBA) and full fire-fighting protective clothing. Thoroughly decontaminate all protective equipment after use. Evacuate all persons from the fire area to a safe location. Move non-burning material, as feasible, to a safe location as soon as possible. Fire fighters should be protected from potential explosion hazard while extinguishing the blaze. Use water spray to cool fire-exposed containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Use personal protective equipment as required. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

Environmental precautions

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Do not allow material to contaminate ground ater system. Soak up with inert absorbent material and dispose of as hazardous waste.

Methods and material for containment and cleaning up

Methods for Containment Prevent spilled material from (1) contaminating soil, (2) entering sanitary sewers, storm sewers, and drainage systems, and 3) entering bodies of water or ditches that lead to waterways. Prevent spreading over a wide area (e.g. by containment or oil barriers)

Methods for Clean-up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash before reuse. Wash hands before breaks and immediately after handling the product. Ensure adequate ventilation. Do not breathe vapor or mist. Empty containers may retain product residue (liquid and/or vapor). Do not pressurize, cut, weld, braze, solder, drill, grind, or expose these containers to heat, flame, sparks, static electricity, or other sources of ignition as the container may explode and may cause injury or death. Empty drums should be completely drained and properly bunged. Empty drums should be promptly returned to a drum reconditioner or properly disposed. Avoid use of electric band heaters.

Conditions for safe storage, including any incompatibilities

Storage Keep container tightly closed. Keep in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits

Components with workplace control parameters

Methacrylic Acid (CAS #: 79-41-4)

ACGIH TLV	20 ppm TWA
Canada - Alberta OELs	20 ppm TWA 70 mg/m3 TWA
Canada - Ontario OELs	20 ppm TWA
Canada - British Columbia OELs	20 ppm TWA

Silica, Amorphous, Fumed, Cryst.-Free (CAS #: 112945-52-5)

OSHA PEL	20 mppcf, 80 mg/m3/%SiO2 TWA
NIOSH IDLH	3000 mg/m3 - Immediately dangerous to life or health (IDLH)

Toluene (CAS #: 108-88-3)

ACGIH TLV	20 ppm TWA A4 Not Classifiable as a Human Carcinogen
OSHA PEL	200 ppm TWA 300 ppm Ceiling
Canada - Alberta OELs	50 ppm TWA 188 mg/m3 TWA Substance may be readily absorbed through intact skin
Canada - Ontario OELs	20 ppm TWA
Canada - British Columbia OELs	20 ppm TWA
NIOSH IDLH	500 ppm
Mexico OEL	50 ppm TWA 188 mg/m3 TWA (skin)

Legend

TWA (time-weighted average)
SKIN: Skin Absorption
IDLH - Immediately Dangerous to Life or Health

Appropriate engineering controls

Engineering Controls Good general ventilation should be sufficient to control airborne levels of irritating vapors. Local ventilation may be required during certain operations. Use general ventilation to maintain airborne concentrations to levels that are below regulatory and recommended occupational exposure limits. Local ventilation may be required during certain operations to

maintain concentrations below recommended exposure limits. Use adequate ventilation and/or engineering controls in high temperature processing to prevent exposure to vapors.

Individual protection measures, such as personal protective equipment

Eye/face Protection Safety glasses with side-shields. If splashes are likely to occur:. Tight sealing safety goggles. Ensure that eyewash stations and safety showers are close to the workstation location.

Skin Protection Gloves made of neoprene. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. Chemical resistant apron. Boots.

Respiratory Protection

None required if hazards have been assessed and airborne concentrations are maintained below the exposure limits listed in Section 8. Wear an approved air-purifying respirator with organic vapor cartridges and particulate filters where airborne concentrations may exceed exposure limits in Section 8 and/or there is exposure to dust or mists due to sanding, grinding, cutting, or spraying. Use an approved positive-pressure air-supplied respirator with emergency escape provisions if there is any potential for an uncontrolled release, airborne concentrations are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Amber / Opaque Clear
Odor	Mild Odorless
Odor threshold	Not available
	No information available
Physical State	Viscous liquid
pH	Not applicable
Flash point	> 93°C / > 200°F
Autoignition Temperature	No data available
Boiling point / boiling range	No data available
Melting point / freezing point	No information available
Flammability Limit in Air	
Lower	No data available No information available
Upper	No data available No information available
Specific Gravity	1.06 - 1.15 @ 25°C
Solubility	Insoluble (Water)
Evaporation rate	No data available
	No information available
Vapor Pressure	No data available
Vapor density	Heavier than air
	No information available
Explosive properties	No information available
Oxidizing Properties	No information available
Percent Volatile	2.5 % by weight
VOC Content	27.5 g/l (calculated) product as supplied
Viscosity	3,500 - 5,000 cps @ 25°C
Partition coefficient	No information available
Decomposition temperature	No information available

10. STABILITY AND REACTIVITY

Reactivity
No dangerous reaction known under conditions of normal use.

Chemical Stability
Stable under normal conditions.

Possibility of Hazardous Reactions

Hazardous polymerization Hazardous polymerization does not occur. Polymerization may occur at elevated temperatures.

Conditions to Avoid
Contamination by those materials referred to under Incompatible materials.

Incompatible materials
Incompatible with oxidizing agents.

Hazardous decomposition products
Carbon monoxide. Carbon dioxide (CO2). Hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Primary Routes of Entry Skin Contact, Ingestion, Inhalation, Eye contact

Acute toxicity

Methacrylic Acid

Oral LD50	= 1060 mg/kg (Rat)
Dermal LD50	= 500 mg/kg (Rabbit)
Inhalation LC50	= 7.1 mg/L (Rat) 4 h

Silica, Amorphous, Fumed, Cryst.-Free

Oral LD50	= 3160 mg/kg (Rat)

Toluene

Oral LD50	= 5000 mg/kg (Rat)
Dermal LD50	= 8390 mg/kg (Rabbit)
	= 12124 mg/kg (Rat)

Information on toxicological effects

Symptoms Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness,cessation of breathing.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Eyes	Mild eye irritation.
Skin	Mild skin irritant. Repeated exposure may cause skin dryness or cracking.
Inhalation	Harmful by inhalation. Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.
Ingestion	Ingestion (swallowing) may irritate the mouth, throat and stomach. Ingestion is not an anticipated route of exposure for this material in industrial use. Irritation May cause irritation.
Corrosivity	Not corrosive.
Sensitization	Not sensitizing.
Repeated dose toxicity	Repeated overexposure to toluene via the inhalation route, has caused a hearing loss in laboratory animals.
Mutagenic effects	No information available.
Carcinogenicity	

Toluene

ACGIH	A4 - Not Classifiable as a Human Carcinogen
Legend	ACGIH (American Conference of Governmental Industrial Hygienists)
Reproductive Toxicity	May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility.
Developmental Toxicity	Prolonged and repeated exposure of pregnant animals to toluene (> 1500 ppm) have been reported to cause adverse fetal developmental effects.
Neurological effects	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Target organ effects	Liver, Kidney, Central nervous system (CNS), None known.
Aspiration hazard	No information available.
Unknown acute toxicity	91.6 % of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	1843 mg/kg
ATEmix (dermal)	4124 mg/kg
ATEmix (inhalation-dust/mist)	3139
ATEmix (inhalation-vapor)	47 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity

Methacrylic Acid

Partition coefficient	0.93
Algae	EC50 > 110 mg/l selenastrum capricornutum, OECD 201, 72 h
Fish	LC50 > 79 mg/l Oncorhynchus mykiss, OECD 203, 96 h

Toluene

Partition coefficient	2.65
Algae	EC50 = 12.5 mg/L (Pseudokirchneriella subcapitata) (72h)
Fish	LC50 15.22 - 19.05 mg/L (Pimephales promelas) (96 h) flow-through LC50 = 12.6 mg/L (Pimephales promelas) (96 h) static LC50 5.89 - 7.81 mg/L (Oncorhynchus mykiss) (96 h) flow-through LC50 14.1 - 17.16 mg/L (Oncorhynchus mykiss) (96 h) static LC50 = 5.8 mg/L (Oncorhynchus mykiss) (96 h) semi-static LC50 11.0 - 15.0 mg/L (Lepomis macrochirus) (96 h) static LC50 = 54 mg/L (Oryzias latipes) (96 h) static LC50 = 28.2 mg/L (Poecilia reticulata) (96 h) semi-static LC50 50.87 - 70.34 mg/L (Poecilia reticulata) (96 h) static
Crustacea	EC50 5.46 - 9.83 mg/L 48 h EC50 = 11.5 mg/L 48

Persistence/Degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal Considerations NOT A RCRA HAZARDOUS WASTE: When discarded in its purchased form, this material would not be regulated as a RCRA Hazardous waste under 40 CFR 261.

Contaminated packaging Empty containers should be taken for local recycling, recovery or waste disposal.

US EPA Waste Number Not applicable.

14. TRANSPORT INFORMATION

DOT

Proper shipping name NOT REGULATED

TDG

Proper shipping name NOT REGULATED

MEX

Proper shipping name NOT REGULATED

IATA

Proper shipping name NOT REGULATED

IMDG/IMO

Proper shipping name NOT REGULATED

15. REGULATORY INFORMATION

International Inventories

TSCA Inventory Status: All components of this material are listed on the US Toxic Substances Control Act (TSCA) inventory.

Canadian Inventory Status: All components of this material are listed on the Canadian Domestic Substances List (DSL)

Australian Inventory Status: This product contains only chemicals which are currently listed on the Australian Inventory of Chemical Substances

Korean Inventory Status: This product contains only chemicals which are currently listed on the Korean Chemical Substances List

Philippine Inventory: This product contains one or more chemicals currently not on the Philippine Inventory of Chemicals and Chemical Substances

Japan ENCS: This product contains only chemicals that are currently listed on the Japanese Inventory of Existing and New Chemical Substances

Chinese IECS: This product contains only chemicals that are currently listed on the Chinese Inventory of Existing Chemical Substances

New Zealand Inventory: This product contains only chemicals which are currently listed on the New Zealand Inventory of Chemicals

US Federal Regulations

TSCA 12(b) - Export Notification:

This material does not contain any components that are subject to the US Toxic Substances Control Act (TSCA) Section 12(b)Export Notification requirements.

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical Name	CAS No.	Weight-%	SARA 313 Status
Toluene	108-88-3	< 0.5	Listed

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
Chronic Health Hazard Yes
Fire Hazard No
Sudden Release of Pressure Hazard No
Reactive Hazard No

CWA (Clean Water Act)

This product contains the following listed substances:

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Toluene 108-88-3	1000 lb	Listed	Listed	Listed

Chemical Name	CAS No.	Weight-%	HAPS data
Toluene	108-88-3	< 0.5	Listed

CERCLA

This product contains the following reportable quantities:

Chemical Name	40 CFR 302.4 RQ	40 CFR 355 EHS TPQs
Toluene	1000 lb 454 kg 1 lb 0.454 kg	

Chemical Weapons Convention (CWC)

This product does not contain any listed substances.

State Regulations

California Proposition 65

WARNING: This material contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. The California Safe Drinking Water and Toxic Enforcement Act of 1986 requires that clear and reasonable warning be given prior to exposing any person to this chemical.

Canada

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

16. OTHER INFORMATION

NFPA Rating	Health 1	Flammability 1	Instability 1

Prepared By PMW Technologies
Phone Number: 888-595-1780
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End of Safety Data Sheet