SHINTECH INC.

SAFETY DATA SHEET
POLYVINYL CHLORIDE RESIN

FILE NUMBER: SHINTECH 04
REVISION DATE: 02/18/2022
SUPERCEDES DATE: 08/30/2018

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Shintech PVC, All Grades
SYNONYMS: PVC, Vinyl Resin, polyvinyl chloride

MANUFACTURER: Shintech, Inc.
ADDRESS: 5618 East Highway 332
Freeport, Texas 77541

EMERGENCY PHONE: (979) 233-7861 (Ext. 300)

CHEMICAL NAME: Polyvinyl Chloride
CHEMICAL FAMILY: Organic Polymer
CHEMICAL FORMULA: $(CH_2\text{-}CHCl)_n$
CAS No.: 9002-86-2

PRODUCT USE: Polyvinyl Chloride (PVC) Fabrication
PREPARED BY: Shintech Safety Department

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification: Not Classified
EU/ECC: Not Classified - EU directive 67/548/EEC or 1999/45/EC and the CLP EU Regulation 1272/2008/EC
OSHA 1910.1200: Not Classified
Label Elements: Not Required

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS#	EINECS#	GHS Hazard Statement Codes	%
Polyvinyl Chloride Resin	9002-86-2	N/A	N/A	> 99.8

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SECTION 4: FIRST AID MEASURES

EYES: Immediately flush the eyes with large amounts of room temperature water for a minimum of 15 minutes. Hold the eyelids apart during the flushing operation. Get immediate medical attention if irritation persists.

SKIN: Wash affected area with soap and water. Get immediate medical attention if irritation persists.

INGESTION: Ingestion of this product under normal conditions does not contribute to any known adverse health effects. If large amounts are ingested get medical attention.

INHALATION: Remove the person from the exposure and move to fresh air. Get immediate medical attention if severe coughing or breathing difficulty occurs.

Most Important Symptoms or Effects (acute and delayed): This product does not present health hazards under normal conditions of use. However, mechanical operations associated with the use of PVC material can produce elevated concentrations of airborne PVC particulates. Contact with PVC particulates can be irritating to the eyes and respiratory tract. Avoid contact with the eyes and wear appropriate eye protection when necessary. Operations that produce airborne dusts should be conducted in well ventilated areas. When exposures to airborne PVC particulates exceed the applicable exposure limits, appropriate respiratory protection must be worn. PVC particulates may aggravate any pre-existing respiratory conditions or allergies.

SECTION 5: FIRE-FIGHTING MEASURES

FLASHPOINT:	Not Applicable
FLAMMABLE LIMITS (% VOLUME IN AIR)	
Lower Explosive Limit (LEL):	Not Applicable
Upper Explosive Limit (UEL):	Not Applicable
AUTOIGNITION TEMPERATURE:	945^{o}F

EXTINGUISHING MEDIA: Water, dry powder, foam, carbon dioxide, or sand is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide inside confined spaces. Collect contaminated fire-fighting water separately.

FIRE FIGHTING PROCEDURES: Avoid inhalation of material or combustion by-products. Wear fire fighter's protective clothing and a NIOSH-approved self-contained breathing apparatus (SCBA).

UNUSUAL FIRE AND EXPLOSIVE HAZARDS: Exposure to fire or explosions can produce hydrogen chloride.

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NFPA:	Health	0 (Normal)	**HMIS:**	Health	0 (none)
	Fire	1 (Above 200ºF)		Flammability	1 (Slight)
	Reactivity	0 (Stable)		Reactivity	0 (none)
	Special	None		PPE	A (safety glasses)

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTIVE EQUIPMENT: Use the personal protective equipment recommended in Section 8.

SPILL PROCEDURES: Contain spill immediately. Restrict access. PVC is a slipping hazard if spilled. Non-recoverable product, contaminated soil, debris and other materials should be placed in proper containers for reclamation or disposal. Avoid generating dust during containment, clean up, and disposal.

DISPOSAL: Follow the procedures recommended in Section 13.

SECTION 7: HANDLING AND STORAGE

HANDLING: Wear personal protective equipment and follow the exposure control measures recommended in Section 8. Avoid contact with eyes and prolonged breathing of airborne PVC. PVC can acquire a substantial static electrical charge, which may cause a spark. Handling and processing equipment should have electrical grounding. Use good housekeeping practices to minimize PVC particulates, especially dust, from accumulating and minimize dust from becoming airborne. Wash thoroughly after handling.

STORAGE: Store in a cool, dry, properly ventilated place and keep isolated from open flames and other sources of ignition.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide general and/or local exhaust ventilation to control airborne levels of PVC dust below the exposure standards and guidelines. Local exhaust ventilation is preferred because it is capable of controlling contaminant emissions at the source and preventing dispersion into the general work area. For additional information on ventilation, refer to the ACGIH text, *Industrial Ventilation, a Manual of Recommended Practices.*

EYE PROTECTION: Wear ANSI approved safety glasses with side shields and/or an appropriate full-face shield. All eye protection should be selected and worn in accordance with the general OSHA PPE standard (29 CFR 1910.132) and the OSHA eye and face protection standard (29 CFR 1910.133).

SKIN PROTECTION: Under normal conditions, the use of additional PPE is not necessary to protect the skin. However, protective clothing, including gloves, aprons, and other outer garments may be desirable in extremely dusty areas. All PPE for skin protection should be selected and worn in accordance with the general OSHA PPE standard (29 CFR 1910.132), the

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OSHA eye and face protection standard (29 CFR 1910.133), and the OSHA hand protection standard (29 CFR 1910.138).

RESPIRATORY PROTECTION: Use a NIOSH-approved air purifying respirator with an N95 cartridge where airborne concentrations are expected to exceed exposure limits. All respirators should be selected and worn in accordance with the general OSHA PPE standard (29 CFR 1910.132) and the OSHA respiratory protection standard (29 CFR 1910.134).

EXPOSURE GUIDELINES:

COMPONENT	OSHA PEL	ACGIH TLV	NIOSH IDLH
Dust (total)	15 mg/m^3 (TWA)	Not Established	Not Established
Dust (respirable)	5 mg/m^3 (TWA)	1 mg/m^3 (TWA)	Not Established

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Granulate Solid (free flowing)
COLOR:	White
ODOR:	Odorless
ODOR THRESHOLD:	Not Applicable
PH:	Not Applicable
BOILING POINT/BOILING RANGE	Not Applicable
MELTING/FREEZING POINT:	Not Applicable
FLASH POINT:	Not Applicable
EVAPORATION RATE:	Not Applicable
FLAMMABILITY SOLID:	Not Applicable
UPPER/LOWER EXPLOSIVE LIMITS:	Not Applicable
VAPOR PRESSURE:	Not Applicable
VAPOR DENSITY (AIR):	Not Applicable
WATER SOLUBILITY:	Not Soluble
RELATIVE DENSITY (SPECIFIC GRAVITY):	1.4
WATER SOLUBILITY:	Not Soluble
PARTITION COEFFICIENT: n-octanol/water:	No Data Available
AUTO IGNITION TEMPERATURE:	945^{o}F
DECOMPOSITION TEMPERATURE :	No Data Available
VISCOSITY:	Not Applicable To Solids
MOLECULAR FORMULA:	$(CH_2$-CHCl)n
MOLECULAR WEIGHT:	20,000 – 150,000 g/mole
VINYL CHLORIDE:	This Polyvinyl Chloride product contains Vinyl Chloride Monomer on the order of 0.1 to 5 ppm by weight.

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Stable at normal temperatures and pressures
CONDITIONS TO AVOID:	Avoid all possible sources of ignition, heat and flames.

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INCOMPATIBLE MATERIALS:	Avoid contact with acetal or acetal copolymers and amines (derivatives of ammonia).
HAZARDOUS DECOMPOSITION PRODUCTS:	Mostly Hydrogen Chloride.
HAZARDOUS POLYMERIZATION:	Has not been reported.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICITY DATA:	There is limited toxicity information available for this product.
CARCINOGENICITY:	This product is not considered carcinogenic by OSHA, NTP, or IARC.
REPRODUCTIVE EFFECTS:	None reported
MUTAGENICITY:	Has not been reported
TERATOGENICITY:	Has not been reported

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: There is limited information available for this product.

ENVIRONMENTAL FATE: There is limited information available for this product.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Do not dump this product into any sewers, on the ground, or into any body of water. Dispose of in accordance with all applicable federal, state, and local regulations. Waste characterization and compliance with applicable laws are the responsibility of the waste generator.

RCRA P-Series:	Not Listed
RCRA U-Series:	Not Listed
NPRI:	Not Listed

SECTION 14: TRANSPORT INFORMATION

SHIPPING NAME:	Polyvinyl Chloride	IATA HAZARD CLASS:	Not Regulated
DOT HAZARD CLASS:	Not Regulated	IMGD CLASS:	Not Regulated
DOT SHIPPING ID:	Not Required	RID/ADR CODES:	Not Required
PACKING GROUP:	Not Required	PACKING GROUP:	Not Required
LABEL:	Not Required	HAZARD ID:	Not Required

* This product is not regulated as a hazardous material by the U.S. Department of Transportation (DOT), IMGD, EU, United Nations, IATA or the Canadian Transportation of Dangerous Goods (TDG) regulations.

SECTION 15: REGULATORY INFORMATION

GHS Classification / Hazard Statement Codes:	Not Classified
CERCLA Sections 102a/103 (40 CFR 302.4):	Not Regulated
SARA Title III Section 302 (40 CFR 355.30):	Not Regulated
SARA Title III Section 304 (40 CFR 355.40):	Not Regulated
SARA Title III Section 313 (40 CFR 372.65):	Not Regulated
SARA Title III Section 311/312 Hazardous Categories (40 CFR 370.21):	
Acute:	No
Chronic:	No
Fire:	No
Reactive:	No
Sudden Release:	No
California Proposition 65:	PVC is not listed. It is unlikely that unpolymerized vinyl chloride from this resin will contribute to workplace exposures under normal conditions of use but trace exposure cannot be ruled out. Users must determine if vinyl chloride may be released from the use of this product. If so, the appropriate Prop 65 warning language is as follows: ⚠ **WARNING:** This product can expose you to chemicals including vinyl chloride, which are known to the State of California to cause cancer. For more information go to: www.P65Warning.ca.gov
TSCA:	Listed on the Inventory
WHMIS (Canada):	Not Classified
CPR (Canada):	Not Regulated
IDL (Canada):	Not Regulated
DSL (Canada):	Listed on the Inventory
ESIS (Europe):	Not Regulated
CRS (Europe):	Not Required
IECSDC (China):	List on the Inventory

OSHA 29 CFR 1910.1017 Vinyl Chloride Standard

Vinyl Chloride Monomer (VCM) is classified as a carcinogen. The U.S. Occupational Safety and Health Administration specifically regulates manufacturing, handling, and processing of Polyvinyl Chloride to control exposures to VCM. Those regulations are published as 29 CFR 1910.1017. Handlers and processors of Polyvinyl Chloride must be familiar with these regulations. None of the information presented in this safety data sheet should be construed to contradict or supersede these regulations.

SECTION 16: OTHER INFORMATION

As the conditions or methods of use of this PVC product are beyond our control, we do not assume any responsibility for and expressly disclaim any liability for any use of this material. Information contained herein is believed to be true and accurate, but all statements or recommendations are made without warranty, express or implied, regarding the accuracy of the information, the hazards connected with use of the material or the results to be obtained from the use of the information or material. Compliance with all applicable federal, state, and local laws and regulations remains the responsibility of the user.

ACGIH:	American Conference of Governmental Industrial Hygienists
ANSI	American National Standards Institute
CAS#:	Chemical Abstracts System Number
CERCLA:	Comprehensive Environmental Response, Compensation, & Liability Act
DOT:	Department of Transportation
DSL:	Domestic Substance List
EC_{50}:	Effective concentration that inhibits the endpoint to 50% of control population
EINECS:	European Inventory of Existing Commercial Chemical Substances
EPA:	U.S. Environmental Protection Agency
ESIS:	European Chemical Substances Information System
HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
IDLH:	Immediately Dangerous to Life and Health
IATA:	International Air Transport Association
IMDG:	International Maritime Dangerous Goods
LC_{50}:	Concentration of air resulting in death to 50% of experimental animals
LD_{50}:	Administered dose resulting in death to 50% of experimental animals
LEL:	Lower Explosive Limit
MSHA:	Mine Safety and Health Administration
NFPA:	National Fire Protection Association
NIOSH:	National Institute for Occupational Safety and Health
NTP:	National Toxicology Program
OSHA:	Occupational Safety and Health Administration
PEL:	Permissible Exposure Limit
PPE :	Personal Protective Equipment
RCRA:	Resource Conservation and Recovery Act
SARA:	Superfund Amendments and Reauthorization Act
STEL:	Short Term Exposure Limit
STP:	Standard Temperature and Pressure
TLV:	Threshold Limit Value
TSCA:	Toxic Substances Control Act
UEL:	Upper Explosive Limit
WHMIS:	Workplace Hazardous Materials Information System

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