

CONCORD COMPOUNDING LIMITED

SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: PVC Compounds
3000 thru 9499 and 85813
Pellet and Powder, all colours

SYNONYMS: Polyvinyl chloride compound, chloroethylene homopolymer compound

CHEMICAL FORMULA: (C₂H₃Cl), plus functional derivatives

MANUFACTURER / SUPPLIER: Concord Compounding Limited
121 Pippin Road
Concord, ON
Canada, L4K 4J9
Phone Number: (905) 761-8529

EMERGENCY PHONE NUMBER: For transportation emergencies:
CHEMTREC (800) 424-9300
For all other emergencies: (905) 761-8529

PREPARED BY: NAPC in conjunction with a third party consultant

PRODUCT USE: Feedstock for PVC processing

DATE OF PREPARATION: October 7, 2021

SECTION 2 – HAZARDS IDENTIFICATION

CLASSIFICATION: Combustible Dusts – Category 1
Germ Cell Mutagen – Category 2
Carcinogenicity – Category 2
Reproductive Toxicity – Category 2
Target Organ Toxicant – Repeated Exposure – Category 2

GHS LABEL SYMBOL:



HAZARD STATEMENTS: Warning – May form combustible dust concentrations in air
Warning – Suspected of causing genetic defects
Warning – Suspected of causing cancer by inhalation
Warning – Suspected of damaging fertility or the unborn child
Warning – May cause damage to organs through prolonged or

repeated exposure by inhalation

PRECAUTIONARY STATEMENTS:**Prevention**

P201 – Obtain special instructions before use

P202 – Do not handle until all safety precautions have been read and understood

P260 – Do not breathe dust/vapours

P270 – Do not eat, drink or smoke when using this product

P280 – Wear respiratory protection

Response

P308+P313 If exposed or concerned, get medical attention

P314 – Get medical advice/attention if you feel unwell

Disposal

P501 – Dispose of contents/container in accordance with local/provincial/federal regulations

Rigid PVC Compound, in the form of a powder, may present a limited risk of dust explosion when mixed with air, but only under particular conditions. A strong energy source is necessary for ignition. Avoid dispersing the dust into clouds when extinguishing a fire.

If proper procedures for processing PVC compounds are not followed, processing fumes and vapors can be liberated at elevated temperatures. The presence of these fumes or vapors may result in worker exposure. Additionally, the composition of these fumes or vapors may vary widely according to the individual processing procedures and materials used. Processors must determine for themselves the appropriate equipment and procedures for their use.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL IDENTITY	CONCENTRATION (PERCENT WEIGHT/WEIGHT)	CAS NUMBER
Polyvinyl chloride resin/polymer	>65	9002-86-2
Organotin or Calcium-zinc	<5	Mixture
Proprietary additives	<30	Mixture

SECTION 4 - FIRST AID MEASURES**INHALATION:**

No adverse effects anticipated under normal conditions if adequately ventilated. However, if exposure occurs, remove victim to fresh air. Obtain medical attention if irritation persists.

SKIN CONTACT:

No adverse effects anticipated under normal conditions. However, if vapor or fume exposure occurs, wash skin thoroughly with soap and water. Obtain medical attention if irritation persists.

EYE CONTACT:

In the event of eye irritation, flush eyes with water for at least 15 minutes. Do not rub the eyes. Obtain medical attention if irritation persists.

INGESTION:

If ingestion occurs, vomiting can be induced after diluting gastric fluids with water or milk. Call a physician for additional medical advice.

**PERSONAL PROTECTIVE EQUIPMENT
FOR FIRST AID RESPONDERS:**

In case of significant contamination of victim, wear respiratory protection (minimum of half-facepiece respirator equipped with P100 cartridges) and avoid inhaling product.

SECTION 5 – FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA:

Carbon dioxide or water. Use extinguishing measures that are appropriate to the local circumstances and the surrounding environment.

SPECIFIC HAZARDS:

Dense smoke may be emitted when burned. Rigid PVC Compounds will not normally continue to burn after ignition without an external fire source. Rigid PVC Compound, in the form of a powder, may present a limited risk of dust explosion when mixed with air, but only under particular conditions. A strong energy source is necessary for ignition. Avoid dispersing the dust into clouds when extinguishing a fire. Do not allow firefighting runoff water to enter streams, rivers or lakes. The water may collect hydrogen chloride (HCl) and other combustion products. **See Section 10 for additional information.**

SPECIAL PROTECTIVE ACTIONS FOR FIREFIGHTERS:

Wear full bunker gear including a positive pressure self-contained breathing apparatus in any closed space.

Flammability Code 1: Must be pre-heated before ignition can occur. Flash point over 93°C (200°F)

Health Code 2: Exposure could cause temporary incapacitation of possible residual injury

Reactivity Code 0: Normally stable, even under fire exposure conditions, and is not reactive with water.

Special Hazards: None

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Remove unnecessary personnel from the release area. Wear appropriate personal protective equipment. Refer to Section 8 for details.

ENVIRONMENTAL PRECAUTIONS:

Contain material to prevent contamination of the soil, surface water or ground water.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:

Cleanup uncontaminated material and recycle into process. Clean spills in a manner that does not disperse dust into the air. Spill area can be washed with water. Place unusable material into a closed, properly labeled container compatible with the product. See MSDS Section 15 for Regulatory Information. Minimize dust generation.

SECTION 7 – HANDLING AND STORAGE

HANDLING PROCEDURES AND EQUIPMENT:

Avoid contact with eyes. Avoid breathing dust. Minimize dust generation and accumulation. Employees working with dried polymer should wear respiratory protective equipment.

Wash thoroughly after handling. PVC resin processing may result in the release of low levels of vinyl chloride. Use only in well-ventilated

areas.

STORAGE REQUIREMENTS:

Store in a dry place away from direct sunlight, heat, and incompatible materials. Store away from food and beverages. Reseal containers immediately after use. Store in a well-ventilated, cool area equipped with high volume sprinkler heads.

PVC dust is capable of propagating a secondary dust explosion. This potential can be reduced by good housekeeping, prevention of dust from process equipment, preventing accumulation of dust on overhead horizontal surfaces and eliminating potential ignition sources.

Avoid heat, flames, sparks, and other sources of ignition. Use properly grounded electrically conductive materials for piping circuits and equipment.

PACKAGING:

Not applicable

SENSITIVITY TO MECHANICAL IMPACT: No

Local and state/provincial regulations regarding the handling and storage of chemicals may vary widely. The user should acquire knowledge of these and other appropriate federal and state/provincial laws and regulations as well as consult with the proper authority for guidance in developing adequate handling procedures and constructing appropriate storage facilities.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS:**Occupational Exposure Limits (OEL)**

	ACGIH^a	Ontario
	TLV-TWA^b	TWA^c
Polyvinyl Chloride	1 mg/m ³ , Respirable	1 mg/m ³ , Respirable
Particles Not Otherwise Specified (insoluble or poorly soluble)	3 mg/m ³ , Respirable ^d 10 mg/m ³ , Inhalable ^d	3 mg/m ³ , Respirable 10 mg/m ³ , Inhalable

The following materials may be present in this product, but are not anticipated to exceed exposure limits under normal conditions:

Carbon Black	3 mg/m ³ , Inhalable	3 mg/m ³ , Inhalable
Titanium Dioxide	10 mg/m ³	10 mg/m ³
Antimony compounds	0.5 mg/m ³	0.5 mg/m ³
Barium compounds	0.5 mg/m ³	0.5 mg/m ³
Arsenic compounds	0.01 mg/m ³	0.01 mg/m ³
Chromium, metal and Cr III compounds	0.5 mg/m ³	0.5 mg/m ³
Tin, organic compounds	0.1 mg/m ³	0.1 mg/m ³
Hydrogen Chloride	2 ppm C ^e	2 ppm C ^e
Vinyl Chloride monomer	1 ppm	1 ppm

a – American Conference of Governmental Industrial Hygienists

b – Threshold Limit Value - Time Weighted Average (i.e. 8 hours)

- c – Time Weighted Average (i.e. 8 hours) Limit
- d – As a guideline only (i.e. TLV has been withdrawn)
- e – Ceiling limit

PERSONAL PROTECTIVE EQUIPMENT (PPE):

GLOVES (SPECIFY):

If prolonged skin contact is possible, wear gloves. Wash hands following contact with this product.

RESPIRATOR (SPECIFY):

For most conditions, no respiratory protection should be needed. However, in cases of dust formation, NIOSH-approved respiratory protection meeting the requirements of your jurisdiction may be needed. If the material is overheated and starts smoldering, wear a positive pressure self-contained breathing apparatus for respiratory protection.

See CSA Standard Z94.4-11 "*Selection Care and Use of Respirators*" or the "*NIOSH Guide to the Selection and Use of Particulate Respirators (1996)*" for additional information.

EYE (SPECIFY):

Wear safety glasses with side shields or goggles. Under high dust conditions, wear monoframe goggles for dust and splash protection or a full-facepiece respirator. See CSA Standard Z94.3-07 (R2012) "*Eye and Face Protectors*" or ANSI/ISEA Z87.1-2010 "*American National Standard for Occupational and Educational Personal Eye and Face Protection Devices*" for additional information.

FOOTWEAR (SPECIFY):

As required

OTHER EQUIPMENT (SPECIFY):

Wash contaminated clothing before reusing.

ENGINEERING CONTROLS (E.G. VENTILATION, ENCLOSED PROCESS, SPECIFY):

Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Adequate ventilation should be provided as conditions warrant. Local exhaust ventilation should comply with jurisdictional regulations and the American Conference of Governmental Industrial Hygienists, Industrial Ventilation - A Manual of Recommended Practice.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Pellets or powder
ODOUR AND APPEARANCE:	Odourless to mild.
ODOUR THRESHOLD:	Not available
SPECIFIC GRAVITY (WATER=1):	1.25 to 1.55
SOLUBILITY IN WATER	Not water soluble
CO-EFFICIENT OF WATER/OIL DISTRIBUTION:	Not available
VAPOUR PRESSURE:	<0.1
BOILING POINT (°C):	Not applicable
MELTING/FREEZING POINT (°C):	Not available
PH:	Not applicable
VAPOUR DENSITY (AIR=1):	Not applicable
EVAPORATION RATE (BUTYL ACETATE=1):	Not applicable
FLASHPOINT (°C) AND METHOD:	Not applicable

UPPER FLAMMABLE LIMIT (%):	Not available
LOWER FLAMMABLE LIMIT (%):	Not available
AUTO-IGNITION TEMPERATURE (°C):	Greater than 315°C (600°F)

SECTION 10 – STABILITY AND REACTIVITY

REACTIVITY:	Stable under normal conditions
CHEMICAL STABILITY:	Normally stable. Hazardous polymerization will not occur.
CONDITIONS TO AVOID:	Instantaneous temperatures above 215°C (420°F), prolonged heating at processing temperatures, or excessive shear/heat combinations during processing can generate hazardous decomposition products.
INCOMPATIBLE MATERIALS:	Polyvinyl chloride compounds should not come into contact with acetal or acetal copolymers in elevated temperature processing equipment. The two materials are not compatible and will react in a violent decomposition when mixed under conditions of heat and pressure.
HAZARDOUS DECOMPOSITION PRODUCTS:	Overheating may cause thermal degradation of PVC compound. Fumes and vapors (including CO, CO ₂ , and HCl) may be generated during this thermal degradation. Emissions are also possible during normal operating conditions, and may accumulate within an inadequately ventilated facility.

SECTION 11 – TOXICOLOGICAL INFORMATION

ROUTE OF ENTRY:	<input checked="" type="checkbox"/> Skin Contact <input type="checkbox"/> Skin Absorption <input checked="" type="checkbox"/> Eye Contact <input checked="" type="checkbox"/> Inhalation <input type="checkbox"/> Ingestion
ACUTE TOXICITY:	Dust associated with the handling of PVC powder as well as fumes or vapors liberated from both PVC powder and pellets at high temperatures may be irritating to the eyes, skin and respiratory tract if not adequately ventilated. Measures of acute toxicity are as follows: Lowest Toxic Dose, Oral (TD _{LO}) 210 g/kg, rat 50% Lethality, Inhalation (LC ₅₀) 140 mg/m ³ , mouse
SKIN CORROSION/IRRITATION:	Vapors or fumes emitted during processes involving elevated temperatures may cause skin irritation. Dust resulting from the handling of powder may be irritating to the skin.
SERIOUS EYE DAMAGE/IRRITATION:	Vapors or fumes emitted, due to other than normal processing conditions, may cause eye irritation. Dust resulting from the handling of powder may be irritating to the eyes.
RESPIRATORY OR SKIN SENSITIZATION:	Not available
INTERACTIVE EFFECTS:	Not available
MUTAGENICITY:	Organotin compounds have been identified as germ cell mutagens.
CARCINOGENICITY:	IARC has determined that there is inadequate evidence of carcinogenicity of a polyvinyl chloride resin in both animals and humans. The overall evaluation of polyvinyl chloride is Group 3, meaning that it is not classifiable as a carcinogen (IARC Vol. 19, 1987). Polyvinyl chloride is not listed as a carcinogen by OSHA, NIOSH, NTP, IARC or EPA. Titanium dioxide is listed as a Group 2B carcinogen – possibly

carcinogenic to humans.

REPRODUCTIVE TOXICITY:

Organotin compounds have been identified as reproductive toxicants in animal testing. Increases in fetal loss and birth defects were observed. Per CA Prop 65 arsenic has been listed as a developmental toxin.

SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE:

Not available

SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE:

Chronic exposure to fumes and vapors from heated or thermally decomposed plastics may cause an asthma-like syndrome due to the inhalation of process vapors or fumes. The onset of irritation maybe delayed for several hours. Fumes or vapors may accumulate within the facility during normal operating procedures that involve elevated temperatures. Exposure to these elevated concentrations, if not adequately ventilated, may have significant health effects.

ASPIRATION HAZARD:

Not available. Not expected to be of concern.

SECTION 12 – ECOLOGICAL INFORMATION

ECOTOXICITY:

Based on the high molecular weight of this polymeric material, transport of this compound across biological membranes is unlikely. Accordingly, the probability of environmental toxicity or bioaccumulation in organisms is remote. Due caution should be exercised to prevent the accidental release of this material to the environment.

PERSISTENCE / DEGRADABILITY:

Not subject to biodegradation

BIOACCUMULATION / ACCUMULATION:

Not available

MOBILITY IN ENVIRONMENTAL MEDIA:

Not available

OTHER ADVERSE EFFECTS:

Not available

SECTION 13 – DISPOSAL CONSIDERATIONS

DISPOSAL:

Do not dump into any sewers, on the ground, or into any body of water. Waste should be disposed of in accordance with local environmental regulations. Waste characterization and compliance with applicable laws are the responsibility of the waste generator.

SECTION 14 – TRANSPORTATION INFORMATION

UN NUMBER:

Not available

UN PROPER SHIPPING NAME:

Polyvinyl Chloride

TRANSPORT HAZARD CLASSES:

Not available

PACKING GROUP:

Not available

ENVIRONMENTAL HAZARDS:

Not available

SPECIAL PRECAUTIONS FOR USER:

Not available

SECTION 15 – REGULATORY INFORMATION

Regulatory information is not meant to be all-inclusive. It is the user's responsibility to ensure compliance with

federal, state or provincial and local laws

SARA TITLE III:

Section 302 and 304 of the Act; Extremely Hazardous Substances (40 CFR 355)

<u>Component</u>	<u>CAS No.</u>	<u>TPQ^a (lbs)</u>	<u>RQ^b (lbs)</u>
None	N/A	N/A	N/A

a – Threshold Planning Quantity

b – Reportable Quantity

Specific state and local requirements regarding reportable quantities should be reviewed prior to chemical use, as they may differ from the federal reportable quantity requirement as stated above.

Section 311 Hazard Categorization (40 CFR 370):

<u>Acute</u>	<u>Chronic</u>	<u>Fire</u>	<u>Pressure</u>	<u>Reactive</u>
Not Listed	N/A	N/A	N/A	N/A

SECTION 313 TOXIC CHEMICALS (40 CFR 372.65):

This product contains the following EPCRA Section 313 chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986.

COMPONENT	CAS No.	Weight (percent)
Antimony Compounds	N010	0-20
Barium Compounds	N040	0-10
Zinc Compounds	N982	0-10

CERCLA:

Section 102(a) Hazardous Substances (40 CFR 302.4)

<u>Component</u>	<u>CAS No.</u>	<u>Weight (lbs)</u>	<u>RQ (lbs)</u>
None	N/A	N/A	N/A

RCRA:

This product, as supplied, is not a hazardous waste according to the USEPA's Toxicity Characteristic Leaching Procedure. Any physical or chemical modification of this product may change the TCLP test results.

PROPOSITION 65:



WARNING: This product can expose you to chemicals including carbon black, titanium dioxide, antimony, arsenic and vinyl chloride monomer which are known to the State of California to cause cancer, and to arsenic, which is known to the State of California to cause birth defects or other harm. For more information go to www.P65Warnings.ca.gov

CANADIAN REGULATIONS:

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

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):

All substances in this product are listed on the Canadian Domestic Substances (DSL) list or are not required to be listed.

OSHA 29 CFR 1910.1017:

This compound may contain trace levels (<0.001%) of vinyl chloride monomer (VCM). Under normal working conditions with adequate ventilation, neither the OSHA-PEL of 1 ppm (8-hr TWA), nor the OSHA-STEL (5.0 ppm) should be exceeded. The workplace should be monitored and if the level exceeds any of the PELs or action levels, refer to 29 CFR 1910.1017.

SECTION 16 – OTHER INFORMATION

IMPORTANT: The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. Buyer assumes all risk of use, storage, handling and disposal of the product in compliance with applicable federal, state, and local laws and regulations. Concord Compounding Limited **MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, CONCERNING THE ACCURACY OR COMPLETENESS OF THE INFORMATION AND DATA HEREIN.** Concord Compounding Limited will not be liable for claims relating to any party's use of or reliance on information and data contained herein regardless of whether it is claimed that the information and data are inaccurate, incomplete or otherwise misleading. This information relates to the material designated and may not be valid for such material used in combination with any other materials nor in any process