



Safety Data Sheet

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

- Product Name** • **Flexible PVC Compounds - Pellet, All Colors**
- Synonyms** • All Flexible PVC Compounds with product numbers 1## to 1#####, including all colors; Chloroethylene homopolymer compound; Polyvinyl chloride compound

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Relevant identified use(s)** • Flexible plastic for forming products
- Use(s) advised against** • Do not mix or follow with ACETAL in an extrusion or injection molding machine.

1.3 Details of the supplier of the safety data sheet

- Manufacturer** • Westlake Compounds LLC
2801 Post Oak Blvd., Suite 600
Houston, TX 77056
United States
www.westlake.com
SDSinfo@westlake.com
- Telephone (General)** • +1 713-960-9111

1.4 Emergency telephone number

- Manufacturer** • +1 304-455-6882

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

2.1 Classification of the substance or mixture

- CLP** • Not classified

2.2 Label Elements

- CLP**
- Hazard statements** • No label element(s) required

2.3 Other Hazards

- CLP** • According to Regulation (EC) No. 1272/2008 (CLP) this material is not considered hazardous.

UN GHS Revision 3

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS): Third Revised Edition

2.1 Classification of the substance or mixture

UN GHS • Not classified

2.2 Label elements

UN GHS

Hazard statements • No label element(s) required

Precautionary statements

2.3 Other hazards

UN GHS

- According to the Globally Harmonized System for Classification and Labeling (GHS) this product is not considered hazardous.
-

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012

Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012

- This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.
-

Canada

According to: WHMIS 2015

2.1 Classification of the substance or mixture

WHMIS 2015 • Not classified

2.2 Label elements

WHMIS 2015

Hazard statements • No label element(s) required

Precautionary statements

2.3 Other hazards

WHMIS 2015

- In Canada, the product mentioned above is not considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).
-

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition				
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive
Polyvinyl Chloride	CAS:9002-86-2	<= 90%	NDA	EU CLP: Not Classified UN GHS Revision 3: Not Classified OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified
Plasticizer	NDA	0% TO 60%	NDA	EU CLP: Not Classified UN GHS Revision 3: Not Classified OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified
Inert Fillers	NDA	0% TO 50%	NDA	EU CLP: Not Classified UN GHS Revision 3: Not Classified OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified
Impact Modifiers	NDA	0% TO 50%	NDA	EU CLP: Not Classified UN GHS Revision 3: Not Classified OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified
Flame Retardants	NDA	0% TO 30%	NDA	EU CLP: Not Classified UN GHS Revision 3: Not Classified OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified
Process Aid	NDA	0% TO 25%	NDA	EU CLP: Not Classified UN GHS Revision 3: Not Classified OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified
Lubricants	NDA	0% TO 20%	NDA	EU CLP: Not Classified UN GHS Revision 3: Not Classified OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified
Colorant	NDA	0% TO 15%	NDA	EU CLP: Not Classified UN GHS Revision 3: Not Classified OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified
Heat Stabilizer	NDA	1% TO 10%	NDA	EU CLP: Not Classified UN GHS Revision 3: Not Classified OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified
Vinyl Chloride	CAS:75-01-4 EC Number:200-831-0 EU Index:602-023-00-7	< 0.0005%	Ingestion/Oral-Rat LD50 • 500 mg/kg Inhalation-Rat LC50 • 18 pph 15 Minute(s)	EU CLP: Community Workplace Exposure Limits OSHA HCS 2012: Exposure Limits

Compounded PVC is an inert material in its normal usage; all of the ingredients listed above are encapsulated in the PVC matrix and typical concentrations are indicated.

See Section 16 for full text of H-statements.

Section 4 - First Aid Measures

4.1 Description of 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 immediately if irritation persists.

Skin

- No adverse effects anticipated under normal conditions. Flush with water to remove

- material from skin. Obtain medical attention if irritation persists.
- Eye**
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
- Ingestion**
- No effect expected. If large amounts are ingested, seek medical attention. Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- Immediate medical attention after exposure to this material not expected to be necessary. No special treatment indicated related to exposure to this material.

Section 5 - Firefighting Measures

5.1 Extinguishing media

- Suitable Extinguishing Media**
- Carbon dioxide or water.
In case of fire use media as appropriate for surrounding fire.

- Unsuitable Extinguishing Media**
- None known.

5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- Dense smoke emitted when burned without sufficient oxygen. PVC will not continue to burn after ignition without an external fire source.
- Hazardous Combustion Products**
- Depending on conditions, overheating may cause thermal degradation of PVC compound. Fumes and vapors (including CO, CO₂, 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.

5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection. Do not allow fire fighting runoff water to enter streams, rivers or lakes. The water will collect Hydrochloric Acid from the by-products of combustion. Dike fire control water for later disposal.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Ventilate enclosed areas. Remove unnecessary personnel from release area. Wear appropriate personal protective equipment during clean up.
- Emergency Procedures**
- Avoid unnecessary personnel and equipment traffic in the spill area.

6.2 Environmental precautions

- Prevent entry into waterways and sewers.

6.3 Methods and material for containment and cleaning up

- Containment/Clean-up Measures**
- Avoid generating dust.
Spill area can be washed with water. Place unusable material into a closed, properly labeled container compatible with the product.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Avoid heat, flames, sparks, and other sources of ignition. Use properly grounded electrically conductive materials for piping circuits and equipment. Avoid breathing dust. Avoid contact with eyes. 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.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Keep container closed. Store in a cool, dry, well-ventilated place. Reseal containers immediately after use. To maintain product quality, do not store in heat or direct sunlight, Keep only in the original container at a temperature not exceeding 40C.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada British Columbia	Canada Manitoba	Canada Ontario	Canada Quebec
Vinyl Chloride (75-01-4)	TWAs	1 ppm TWA	1 ppm TWA	Not established	1 ppm TWA (designated substances regulation); 1 ppm TWA (applies to workplaces to which the designated substances regulation does not apply)	1 ppm TWAEV; 2.6 mg/m ³ TWAEV
	Designated Substances	Not established	Not established	Present	Not established	Not established
Polyvinyl Chloride	TWAs	1 mg/m ³ TWA (respirable fraction)	1 mg/m ³ TWA (respirable)	Not established	1 mg/m ³ TWA (respirable)	10 mg/m ³ TWAEV (including dust, inert or nuisance particulates; containing no Asbestos and <1% Crystalline silica, total dust) <i>as Particulates not otherwise classified (PNOC)</i>

Exposure Limits/Guidelines (Con't.)		
	Result	OSHA
Vinyl Chloride (75-01-4)	STELs	5 ppm STEL (see 29 CFR 1910.1017)
	TWAs	1 ppm TWA
Polyvinyl Chloride	TWAs	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction) <i>as Particulates not otherwise classified (PNOC)</i>

Exposure Limits Supplemental

OSHA

• Polyvinyl Chloride as Particulates not otherwise classified (PNOC): **Mineral Dusts:** (15 mppcf TWA (respirable fraction); 5 mg/m³ TWA (respirable fraction); 50 mppcf TWA (total dust); 15 mg/m³ TWA (total dust))

8.2 Exposure controls**Engineering Measures/Controls**

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure that dust handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is not leakage from the equipment).

Personal Protective Equipment**Respiratory**

- Under normal use conditions, respiratory protection should not be needed. However, as deemed required, respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Eye/Face

- Wear safety glasses.

Skin/Body

- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Clean clothing should be sufficient under normal use conditions.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

STEL = Short Term Exposure Limits are based on 15-minute exposures

NIOSH = National Institute of Occupational Safety and Health

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

OSHA = Occupational Safety and Health Administration

TWAEV = Time-Weighted Average Exposure Value

Section 9 - Physical and Chemical Properties**9.1 Information on Basic Physical and Chemical Properties**

Material Description			
Physical Form	Solid	Appearance/Description	Pellet of varying size, harness, and color with a potential slight odor.
Color	Various colors.	Odor	Potential slight odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Temperatures of 300°F (150°C) or greater over an extended period of time may cause thermal degradation of PVC resin.	pH	Data lacking
Specific Gravity/Relative Density	1.15 to 1.7 Water=1	Water Solubility	Insoluble
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	< 1 mmHg (torr)	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			

Flash Point	> 600 °F(> 315.5556 °C)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Under normal conditions of storage and use, hazardous polymerization will not occur.

10.4 Conditions to avoid

- Instantaneous temperatures above 420°F/215°C, prolonged heating at processing temperatures, or excessive shear/heat combinations during processing can generate hazardous decomposition products.

10.5 Incompatible materials

- Polyvinyl chloride materials 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 or pressure. Strong oxidizing agents.

10.6 Hazardous decomposition products

- Depending on conditions, overheating may cause thermal degradation of PVC compound. Fumes and vapors (including CO, CO₂, 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

11.1 Information on toxicological effects

Components		
Polyvinyl Chloride (<= 90%)	9002-86-2	Acute Toxicity: Intratracheal-Rat TDLo • 50 mg/kg; <i>Lungs, Thorax, or Respiration:</i> Fibrosing alveolitis; <i>Biochemical:</i> Enzyme inhibition, induction, or change in blood or tissue levels:Dehydrogenases; Tumorigen / Carcinogen: Ingestion/Oral-Rat TDLo • 210 g/kg 30 Week(s)-Continuous; <i>Tumorigenic:</i> Equivocal tumorigenic agent by RTECS criteria; Lungs, Thorax, or Respiration:Tumors; <i>Skin and Appendages:Other:Tumors</i>

GHS Properties	Classification
Acute toxicity	EU/CLP • Data lacking UN GHS 3 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
	EU/CLP • Data lacking

Skin corrosion/Irritation	UN GHS 3 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking UN GHS 3 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Skin sensitization	EU/CLP • Data lacking UN GHS 3 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Respiratory sensitization	EU/CLP • Data lacking UN GHS 3 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Aspiration Hazard	EU/CLP • Data lacking UN GHS 3 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Carcinogenicity	EU/CLP • Data lacking UN GHS 3 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking UN GHS 3 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking UN GHS 3 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
STOT-SE	EU/CLP • Data lacking UN GHS 3 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
STOT-RE	EU/CLP • Data lacking UN GHS 3 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking

Potential Health Effects

Inhalation

Acute (Immediate)

- Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible.

Chronic (Delayed)

- No data available

Skin

Acute (Immediate)

- Exposure to dust may cause mechanical irritation.

Chronic (Delayed)

- No data available.

Eye

- Acute (Immediate)**
 - Exposure to dust may cause mechanical irritation. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.
- Chronic (Delayed)**
 - No data available.

Ingestion

- Acute (Immediate)**
 - Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.
- Chronic (Delayed)**
 - No data available

Carcinogenic Effects

- This material does contain a component that may cause cancer, however based on regulatory criteria this material is not classified as a carcinogen.

Carcinogenic Effects				
	CAS	OSHA	IARC	NTP
Vinyl Chloride	75-01-4	Specifically Regulated Carcinogen	Group 1-Carcinogenic	Known Human Carcinogen

Key to abbreviations

TD = Toxic Dose

Section 12 - Ecological Information**12.1 Toxicity**

- 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.

12.2 Persistence and degradability

- Not subject to biodegradation.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations**13.1 Waste treatment methods**

- Product waste**
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
- Packaging waste**
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
TDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
IMO/IMDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
IATA/ICAO	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Polyvinyl Chloride	9002-86-2	Yes	No	No	Yes	Yes
Vinyl Chloride	75-01-4	Yes	No	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Vinyl Chloride	75-01-4	A, B1, D2A, D2B, F
• Polyvinyl Chloride	9002-86-2	Uncontrolled product according to WHMIS classification criteria

Canada - WHMIS - Ingredient Disclosure List

• Vinyl Chloride	75-01-4	0.1 %
• Polyvinyl Chloride	9002-86-2	Not Listed

Environment

Canada - CEPA - Priority Substances List

• Vinyl Chloride	75-01-4	Not Listed
• Polyvinyl Chloride	9002-86-2	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Vinyl Chloride	75-01-4	Not Listed
• Polyvinyl Chloride	9002-86-2	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Vinyl Chloride	75-01-4	0.5 ppm Action Level (See 29 CFR 1910.1017); 1 ppm TWA (See 29 CFR 1910.1017); 5 ppm STEL (See 29 CFR
------------------	---------	---

		1910.1017, 15 min)
• Polyvinyl Chloride	9002-86-2	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Vinyl Chloride	75-01-4	
• Polyvinyl Chloride	9002-86-2	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Vinyl Chloride	75-01-4	1 lb final RQ; 0.454 kg final RQ
• Polyvinyl Chloride	9002-86-2	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Vinyl Chloride	75-01-4	Not Listed
• Polyvinyl Chloride	9002-86-2	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Vinyl Chloride	75-01-4	Not Listed
• Polyvinyl Chloride	9002-86-2	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Vinyl Chloride	75-01-4	Not Listed
• Polyvinyl Chloride	9002-86-2	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Vinyl Chloride	75-01-4	0.1 % de minimis concentration
• Polyvinyl Chloride	9002-86-2	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Vinyl Chloride	75-01-4	Not Listed
• Polyvinyl Chloride	9002-86-2	Not Listed

U.S. - TSCA (Toxic Substances Control Act) - Section 12(b) - Export Notification

• Vinyl Chloride	75-01-4	Not Listed
• Polyvinyl Chloride	9002-86-2	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Vinyl Chloride	75-01-4	carcinogen, 2/27/1987
• Polyvinyl Chloride	9002-86-2	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Vinyl Chloride	75-01-4	Not Listed
• Polyvinyl Chloride	9002-86-2	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Vinyl Chloride	75-01-4	Not Listed
• Polyvinyl Chloride	9002-86-2	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Vinyl Chloride	75-01-4	3 µg/day NSRL
• Polyvinyl Chloride	9002-86-2	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Vinyl Chloride	75-01-4	Not Listed
• Polyvinyl Chloride	9002-86-2	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Male		
• Vinyl Chloride	75-01-4	Not Listed
• Polyvinyl Chloride	9002-86-2	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

- **NOTICE:** For the State of California:



WARNING: Cancer and Reproductive Harm -
www.P65Warnings.ca.gov

Section 16 - Other Information

Relevant Phrases (code & full text)

- H373 - May cause damage to organs through prolonged or repeated exposure.

Revision Date

- 15/March/2018

Disclaimer/Statement of Liability

- The technical data given herein is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release, and is not to be considered a warranty or quality specification. No guarantee is being given as to the end use performance. The product is sold on the basis that buyers test the product for their specific purposes. This information related to the material designated and may not be valid for such material used in combination with any other materials or in any process.

Key to abbreviations

NDA = No Data Available