SAFETY DATA SHEET

OXYVINYLS® PVC HOMOPOLYMER SUSPENSION RESIN
(PRIME GRADES)

MSDS No.: M40722  Rev. Date:  25-Jul-2012  Rev. Num.  06

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Identification:  Oxy Vinyls, LP
5005 LBJ Freeway
Suite 500, LB30
Dallas, Texas 75244-6123

24 Hour Emergency Telephone Number:  1-800-733-3665 or 1-972-404-3228 (U.S.); CHEMTREC (U.S.): 1-800-424-9300;
CHEMTREC (outside U.S.): +1 703-527-3887

To Request an SDS:  MSDS@oxy.com or 1-972-404-3245

Customer Service:  1-800-752-5151 or 1-972-404-3700


Synonyms:  Polyvinyl chloride

Product Use:  Vinyl fabrication

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Color:  White
Physical State:  Solid
Appearance:  Powder, Granular
Signal Word:  WARNING

MAJOR HEALTH HAZARDS: FUMES PRODUCED IN PROCESSING MAY IRRITATE RESPIRATORY TRACT, SKIN AND EYES. POLYVINYL CHLORIDE CONTAINS VINYL CHLORIDE. VINYL CHLORIDE IS A CANCER-SUSPECT AGENT.

PRECAUTIONARY STATEMENTS:  Avoid breathing dust. Avoid contact with skin, eyes and clothing. Keep container tightly closed and properly labeled. Wash thoroughly after handling. Use only with adequate ventilation.
POTENTIAL HEALTH EFFECTS:

Inhalation: May cause irritation.

Skin contact: May cause mechanical irritation.

Eye contact: May cause mechanical irritation.

Ingestion: No known effects.

TARGET ORGAN(S): Respiratory system

Chronic Effects: Chronic exposure to the respirable fraction (particles less than 10 microns in size) of PVC particles, may produce pulmonary fibrosis. Particle sizes associated with suspension polymerization are typically greater than 10 microns in size. Product contains residual amounts of VCM (concentrations less than 10 ppm).

See Section 11: TOXICOLOGICAL INFORMATION

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>%</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethene, chloro-, homopolymer (PolyVinyl Chloride)</td>
<td>100</td>
<td>9002-86-2</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. IF IRRITATION OCCURS, GET MEDICAL ATTENTION.

SKIN CONTACT: Wash contaminated areas with soap and water. IF IRRITATION OCCURS, GET MEDICAL ATTENTION.

EYE CONTACT: Flush eyes with plenty of water for at least 15 minutes. IF IRRITATION OCCURS, GET MEDICAL ATTENTION.

INGESTION: No hazard expected. IF LARGE AMOUNTS ARE INGESTED, GET MEDICAL ATTENTION.

5. FIRE-FIGHTING MEASURES

Fire Hazard: Slight fire hazard. Although unlikely, dust/air mixtures may pose a limited risk of explosion under certain conditions (see Section 7).

Extinguishing Media: Use media appropriate for surrounding fire.

Fire Fighting: Keep unnecessary people away, isolate hazard area and deny entry. Move container from fire area if it can be done without risk. Wear NIOSH approved positive-pressure self-contained breathing apparatus operated in pressure demand mode. Cool extinguished material to prevent decomposition.
Sensitivity to Mechanical Impact: Not sensitive.

Sensitivity to Static Discharge: Electrostatic charges may build up during handling. Ground equipment.

Flash point: 736°F (391°C)
Method: ASTM D1929

Autoignition Temperature: 849°F (454°C)

Hazardous Combustion Products: Hydrogen chloride, Oxides of carbon, Small amounts of benzene and aromatic and aliphatic hydrocarbons, Phosgene

6. ACCIDENTAL RELEASE MEASURES

Occupational Release: Eliminate all sources of ignition. To minimize dust, vacuum cleaning is preferred. Collect spilled material in appropriate container for disposal. Keep product and flush water out of water supplies and sewers. Releases should be reported, if required, to appropriate agencies.

7. HANDLING AND STORAGE

Storage Conditions: Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Store in a cool, dry area. Store in a well-ventilated area. Avoid heat, flames, sparks and other sources of ignition. Ground equipment.

Handling Procedures: Use methods to minimize generation of dust. PVC dust is capable of propagating a secondary dust explosion. Avoid breathing dust. This potential can be reduced by good housekeeping, prevention of dust from process equipment, preventing accumulation of dust emissions on overhead, horizontal surfaces and eliminating potential ignition sources. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. PVC resin processing may result in the release of low levels of vinyl chloride.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Regulatory Exposure Limit(s): As listed below

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA Final PEL TWA</th>
<th>OSHA Final PEL STEL</th>
<th>OSHA Final PEL Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethene, chloro-, homopolymer (PolyVinyl Chloride) – CAS#: 9002-86-2; listed as Particulates Not Otherwise Regulated</td>
<td>15 mg/m³ (total dust) 5 mg/m³ (respirable)</td>
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</table>

OEL: Occupational Exposure Limit; OSHA: United States Occupational Safety and Health Administration; PEL: Permissible Exposure Limit; TWA: Time Weighted Average; STEL: Short Term Exposure Limit
Non-Regulatory Exposure Limit(s): As listed below

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>ACGIH TWA</th>
<th>ACGIH STEL</th>
<th>ACGIH Ceiling</th>
<th>OSHA TWA (Vacated)</th>
<th>OSHA STEL (Vacated)</th>
<th>OSHA Ceiling (Vacated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethene, chloro-, homopolymer (PolyVinyl Chloride)</td>
<td>9002-86-2</td>
<td>1 mg/m³ Respirable Particulate Matter</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

- The Non-Regulatory United States Occupational Safety and Health Administration (OSHA) limits shown in the table are the Vacated 1989 PEL's (vacated by 58 FR 35338, June 30, 1993).

- The American Conference of Governmental Industrial Hygienists (ACGIH) is a voluntary organization of professional industrial hygiene personnel in government or educational institutions in the United States. The ACGIH develops and publishes recommended occupational exposure limits each year called Threshold Limit Values (TLVs) for hundreds of chemicals, physical agents, and biological exposure indices.

Additional Advice: The fabrication processes for the final product may involve coating, calendering, and molding. To assess the health hazards associated with exposure to compounded PVC dusts, it may be necessary to have information on the ingredients used in the compounding of the resin.

ENGINEERING CONTROLS: Provide local exhaust ventilation where dust or vapors may be generated. Ensure compliance with applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT:

- **Eye Protection:** Safety glasses or goggles are recommended when there is a potential for eye contact.

- **Skin and Body Protection:** Wear suitable protective clothing.

- **Hand Protection:** Wear appropriate chemical resistant gloves.

- **Protective Material Types:** Polyvinyl chloride (PVC), Tyvek®

- **Respiratory Protection:** An approved respirator with dust, mist and fume filters may be permissible under certain circumstances. A respiratory protection program that meets applicable regulatory requirements must be followed whenever workplace conditions warrant use of a respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

- **Physical State:** Solid
- **Appearance:** Powder, Granular
- **Color:** White
- **Molecular Formula:** (C2H3Cl)n
- **Melting Point/Range:** No data available
- **Vapor Pressure:** Not applicable
- **Specific Gravity (water=1):** 1.4
- **Density:** 1.4 gm/cm³
- **Water Solubility:** Negligible
- **pH:** Not applicable
- **Volatility:** Not applicable
- **Evaporation Rate (ether=1):** Not applicable
10. STABILITY AND REACTIVITY

Reactivity/ Stability: Stable at normal temperatures and pressures.

Conditions to Avoid: Avoid heat, flames, sparks and other sources of ignition.

Incompatibilities/ Materials to Avoid: None known

Hazardous Decomposition Products: Hydrochloric acid, Carbon oxides, Small amounts of benzene and aromatic and aliphatic hydrocarbons, phosgene

Hazardous Polymerization: PVC is a stable polymer and will not further polymerize. This material will not depolymerize to form VCM.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:
This material is practically non-toxic by the oral route. This material is unlikely to cause chemical skin irritation. Mechanical irritation may occur. Eye irritation may occur from the mechanical action of lodged particles. Vinyl chloride monomer (VCM) is NOT likely to be present at levels that would produce an acute biological effect when used in a well ventilated area. Acute biological effects of VCM include CNS and respiratory depression.

CHRONIC TOXICITY:
The available evidence from experimental animals and from humans indicates that pure PVC is not metabolized in mammals. Several studies have described pulmonary fibrosis from inhalation of high levels of respirable PVC particles. PVC resin particles generated by suspension polymerization are generally large enough in diameter that the majority are not considered respirable. Vinyl chloride monomer (VCM) is NOT likely to be present at levels that would produce a chronic biological effect when used in a well ventilated area. Chronic biological effects of VCM include damage to the liver, which causes angiosarcoma of the liver (a rare form of liver cancer in humans) and Raynaud's syndrome (bone loss in finger tips). Long latent period may exist between exposure and symptom onset.

CARCINOGENICITY: This product is not classified as a carcinogen by NTP, IARC or OSHA.

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA:

Aquatic Toxicity: No data available. This material is believed to be practically non-toxic to aquatic life.

FATE AND TRANSPORT:
BIODEGRADATION: PVC will not biodegrade. Vinyl chloride may degrade under anaerobic conditions.

PERSISTENCE: This material will persist in the environment.

BIOCONCENTRATION: This material will not bioconcentrate.

ADDITIONAL ECOLOGICAL INFORMATION: This material is believed to be practically non-toxic to terrestrial organisms.

13. DISPOSAL CONSIDERATIONS

Reuse or reprocess, if possible. May be subject to disposal regulations. Dispose in accordance with all applicable regulations.

14. TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101:
Status: Not regulated

CANADIAN TRANSPORTATION OF DANGEROUS GOODS:
Status: Not regulated

15. REGULATORY INFORMATION

U.S. REGULATIONS

- OSHA REGULATORY STATUS:
  This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

- CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4): If a release is reportable under CERCLA section 103, notify the state emergency response commission and local emergency planning committee. In addition, notify the National Response Center at (800) 424-8802 or (202) 426-2675

<table>
<thead>
<tr>
<th>Hazardous Component</th>
<th>CERCLA Reportable Quantities:</th>
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<tbody>
<tr>
<td>Vinyl chloride</td>
<td>1 lb (final RQ)</td>
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</tbody>
</table>

- EPCRA EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30): Not regulated

- EPCRA SECTIONS 311/312 HAZARD CATEGORIES (40 CFR 370.10): None
EPCRA SECTION 313 (40 CFR 372.65):
Not regulated.

OSHA SPECIFICALLY REGULATED SUBSTANCES:
OSHA 29 CFR 1910.1017 (Vinyl chloride): The U.S. Department of Labor, Occupational Safety and Health Administration specifically regulates manufacturing, handling and processing of polyvinyl chloride. Such regulations have been published at 29 CFR 1910.1017. It is necessary that handlers and processors of polyvinyl chloride be familiar with these regulations. This resin may contain low levels of vinyl chloride. Under normal working conditions with adequate ventilation, neither the OSHA 8-hour TWA-PEL of 1.0 ppm, the 0.5 ppm action level, nor the C/STEL of 5.0 ppm should be exceeded. The workplace should be monitored, and if the level exceeds the PELs or action levels, refer to 29 CFR 1910.1017. In addition, all containers of PVC Resin shall be legibly labeled with the following warning: POLYVINYL CHLORIDE CONTAINS VINYL CHLORIDE. VINYL CHLORIDE IS A CANCER SUSPECT AGENT. [NOTE: Although the OSHA Vinyl Chloride Standard requires this specific language for containers of PVC resins, vinyl chloride is classified by IARC and NTP as a known human carcinogen].


NATIONAL INVENTORY STATUS

U.S. INVENTORY STATUS: Toxic Substance Control Act (TSCA): All components are listed or exempt

TSCA 12(b): This product is not subject to export notification

Canadian Chemical Inventory: All components of this product are listed on either the DSL or the NDSL

STATE REGULATIONS

California Proposition 65: This product is not listed, but it may contain impurities/trace elements known to the State of California to cause cancer or reproductive toxicity as listed under Proposition 65 State Drinking Water and Toxic Enforcement Act.

<table>
<thead>
<tr>
<th>Ethene, chloro-, homopolymer (PolyVinyl Chloride)</th>
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<tbody>
<tr>
<td>California Proposition 65 Cancer WARNING:</td>
</tr>
<tr>
<td>California Proposition 65 CRT List - Male reproductive toxin:</td>
</tr>
<tr>
<td>California Proposition 65 CRT List - Female reproductive toxin:</td>
</tr>
<tr>
<td>Massachusetts Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td>New Jersey Right to Know Hazardous Substance List</td>
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<tr>
<td>New Jersey Special Health Hazards Substance List</td>
</tr>
<tr>
<td>New Jersey - Environmental Hazardous Substance List</td>
</tr>
<tr>
<td>Pennsylvania Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td>Pennsylvania Right to Know Special Hazardous Substances</td>
</tr>
<tr>
<td>Pennsylvania Right to Know Environmental Hazard List</td>
</tr>
<tr>
<td>Rhode Island Right to Know Hazardous Substance List</td>
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</tbody>
</table>

CANADIAN REGULATIONS
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.
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| Canada - CEPA Schedule I - Toxic Substance list | Not Listed |
| Canadian Domestic Substance List (DSL/NDSL):     | Listed     |
| WHMIS - Classifications of Substances:           | UP - Uncontrolled Product |

16. OTHER INFORMATION

Prepared by: OxyChem Corporate HESS - Product Stewardship

HMIS: (SCALE 0-4) (Rated using National Paint & Coatings Association HMIS: Rating Instructions, 2nd Edition)

| Health: 0* | Flammability: 1 | Reactivity: 0 |
| NFPA 704 - Hazard Identification Ratings (SCALE 0-4) |
| Health: 0 | Flammability: 1 | Reactivity: 0 |

Reason for Revision:
• Updated 24 Hour Emergency Telephone Number: SEE SECTION 1
• Updated Disposal Considerations. SEE SECTION 13
• Revised Canadian Domestic Substance List language: SEE SECTION 15
• Revised California Proposition 65 Statement: SEE SECTION 15
• Revised Preparer Information: SEE SECTION 16
• Added "End of Safety Data Sheet" phrase

IMPORTANT:
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OSHA Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, safety data sheets, training and access to written records. We request that you, and it is your legal duty to, make all information in this Safety Data Sheet available to your employees.

End of Safety Data Sheet