# SAFETY DATA SHEET

**Preparation Date:** 06/16/2015  
**Revision Date:** 10/16/2018  
**Revision Number:** G3

## 1. IDENTIFICATION

**Product identifier**

<table>
<thead>
<tr>
<th>Product code:</th>
<th>PO141</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name:</td>
<td>POLYVINYL ALCOHOL, 99-100 PERCENT, HYDROLYZED, REAGENT</td>
</tr>
</tbody>
</table>

**Other means of identification**

**Synonyms:** Ethenol homopolymer; PVA; Poly(1-hydroxyethylene); Polyethenol; Vinyl alcohol polymer

**CAS #:** 9002-89-5  
**RTECS #:** TR8100000  
**Cl#:** Not available

**Recommended use of the chemical and restrictions on use**

**Recommended use:** Resin in textile wrap sizing and finishing, in adhesives, in grease-resistant paper coating; suspension agent in polymerization of vinyl acetate and vinyl chloride; thickener in latex coatings, ingredient in pesticide sprays; binder for phosphorescent pigments in TV picture tubes, air in photoengraving process; resin in cosmetic face masks, photographic and ether films; pigment binder in paper coatings.

**Uses advised against:** No information available

**Supplier:** Spectrum Chemical Mfg. Corp  
14422 South San Pedro St.  
Gardena, CA 90248  
(310) 516-8000

**Order Online At:**  
[https://www.spectrumchemical.com](https://www.spectrumchemical.com)

**Emergency telephone number**  
Chemtrec 1-800-424-9300

**Contact Person:**  
Martin LaBenz (West Coast)  
Ibad Tirmiz (East Coast)

## 2. HAZARDS IDENTIFICATION

**Classification**

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

**Combustible dust:** -

**Label elements**

**Warning**

May form combustible dust concentrations in air

**Product code:** PO141  
**Product name:** POLYVINYL ALCOHOL, 99-100 PERCENT, HYDROLYZED, REAGENT
Hazards not otherwise classified (HNOC)
Not Applicable

Other hazards
Not available

Precautionary Statements - Prevention
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container closed and grounded
Prevent dust accumulations to minimize explosion hazard

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyvinyl Alcohol</td>
<td>9002-89-5</td>
<td>100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

First aid measures

General Advice: National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops. If symptoms persist, call a physician.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms
May cause eye irritation
May cause skin irritation
May cause hypermotility, diarrhea
May cause central nervous system effects
May affect the liver
May affect the blood

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders
First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Product code: PO141
Product name: POLYVINYL ALCOHOL, 99-100 PERCENT, HYDROLYZED, REAGENT

Unsuitable Extinguishing Media: Dry chemical. CO2.

Specific hazards arising from the chemical

Hazardous Combustion Products: Carbon Monoxide, Carbon Dioxide.

Specific hazards: Combustible material. Containers may explode when heated. May form explosive mixtures with air. May be ignited by heat, sparks or flames. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Special Protective Actions for Firefighters

Specific Methods: Cool closed containers with flooding quantities of water until fire is out.

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Use personal protective equipment. Remove all sources of ignition. Avoid contact with skin, eyes and clothing. Avoid dispersal of dust in the air. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Non-sparking tools should be used.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and material for containment and cleaning up

Methods for containment: Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up: Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions: Provide sufficient air exchange and/or exhaust in work rooms. Minimize dust generation and accumulation. Dry powders can build static electricity charges when subjected to friction of transfer and mixing operations. All equipment used when handling the product must be grounded. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Keep away from incompatible materials.

Safe Handling Advice: Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not breathe vapors/dust. Do not ingest. Do not smoke. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Product code: PO141

Product name: POLYVINYL ALCOHOL, 99-100 PERCENT, HYDROLYZED, REAGENT
**Conditions for safe storage, including any incompatibilities**

**Technical Measures/Storage Conditions:**
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

**Incompatible Materials:**
- Oxidizing agents
- Metals
- Strong acids

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**National occupational exposure limits**

**United States**

<table>
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<th>Components</th>
<th>CAS-No.</th>
<th>OSHA</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>AIHA WEEL</th>
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**Canada**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Canada - Alberta</th>
<th>Canada - British Columbia</th>
<th>Canada - Ontario</th>
<th>Canada - Quebec</th>
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**Australia and Mexico**

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<th>Mexico</th>
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<tbody>
<tr>
<td>Polyvinyl Alcohol</td>
<td>9002-89-5</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

**Appropriate engineering controls**

**Engineering measures to reduce exposure:**
Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. 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 no leakage from the equipment) It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in the handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment.

**Individual protection measures, such as personal protective equipment**

**Personal Protective Equipment**

**Eye protection:**
Goggles or Safety glasses with side-shields.

**Product code:** PO141  
**Product name:** POLYVINYL ALCOHOL, 99-100 PERCENT, HYDROLYZED, REAGENT
Skin and body protection: Long sleeved clothing
apron
Gloves

Respiratory protection: Wear respirator with dust filter. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures: Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid
Odor: Odorless.
Molecular/Formula weight (g/mole): (44.05)n
Flammability: Combustible dust
Flashpoint (°C): 79°C
Flashpoint (°C/F): 79°C/ 174.2°F
Lower Explosion Limit (%): No information available
Upper Explosion Limit (%): No information available
Decomposition temperature(°C/F): 228°C/ 442.2°F
Boiling point/range(°C/F): No information available
Density (g/cm3): No information available
Vapor pressure @ 20°C (kPa): No information available
VOC content (g/L): No information available
Viscosity: No information available
Appearance: Powder. Amorphous powder.
Taste: No information available
Formula: (C2H4O)n

10. STABILITY AND REACTIVITY

Reactivity
Incompatible with oxidizing agents (perchlorates, nitrates, etc.), reactive metals (sodium, calcium, zinc, etc.), sodium or calcium hypochlorite, materials reactive with hydroxyl compounds. Reaction with peroxides may result in violent decomposition of peroxide possibly creating and explosion.

Product code: PO141
Product name: POLYVINYL ALCOHOL, 99-100 PERCENT, HYDROLYZED, REAGENT
Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Avoid dust formation. Dust may form explosive mixture in air. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Incompatible materials.

Incompatible Materials: Oxidizing agents
Metals
Strong acids

Hazardous decomposition products: Carbon oxides.

Other Information
Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure: Ingestion. Inhalation.

Acute Toxicity

Component Information

<table>
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<tr>
<th>Polyvinyl Alcohol</th>
<th>CAS-No.</th>
<th>9002-89-5</th>
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</thead>
<tbody>
<tr>
<td>LD50/oral/rat =</td>
<td>23854 mg/kg Oral LD50 Rat; &gt; 20 g/kg Oral LD50 Rat</td>
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<tr>
<td>LD50/oral/mouse =</td>
<td>14700 mg/kg</td>
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<tr>
<td>LD50/dermal/rabbit = No information available</td>
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<tr>
<td>LD50/dermal/rat =</td>
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<tr>
<td>LC50/inhalation/rat = No information available</td>
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<tr>
<td>LC50/inhalation/mouse = No information available</td>
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<td></td>
</tr>
<tr>
<td>Other LD50 or LC50 information = No information available</td>
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<td></td>
</tr>
</tbody>
</table>

Product Information

LD50/oral/rat = VALUE- Acute Tox Oral = 23854 mg/kg

LD50/oral/mouse = Value - Acute Tox Oral = 14700 mg/kg

LD50/dermal/rabbit VALUE-Acute Tox Dermal = No information available
LD50/dermal/rat
VALUE - Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE - Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

LC50/inhalation/mouse
VALUE - Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms
Skin Contact: May cause skin irritation.

Eye Contact: May cause eye irritation.

Inhalation May cause respiratory tract irritation.

Ingestion Causes digestive (gastrointestinal) tract irritation. May cause hypermotility, diarrhea. May affect behavior/central nervous system (symptoms may include general depressed activity, somnolence, altered sleep time, muscle weakness, ataxia).

Aspiration hazard No information available.

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

Chronic Toxicity Prolonged or repeated ingestion of very large amounts may cause hypermotility and diarrhea. Prolonged or repeated ingestion may affect the blood (changes in serum composition). Prolonged or repeated ingestion may affect the liver, urinary system, and metabolism. Prolonged or repeated ingestion may cause weight loss. Prolonged or repeated ingestion may affect the spleen.

Sensitization: No information available.

Mutagenic Effects: No information available

Carcinogenic effects: Not classifiable as to its carcinogenicity to humans.

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>IARC</th>
<th>ACGIH - Carcinogens</th>
<th>NTP</th>
<th>OSHA HCS - Carcinogens</th>
<th>Australia - Notifiable Carcinogenic Substances</th>
<th>Australia - Prohibited Carcinogenic Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyvinyl Alcohol</td>
<td>9002-89-5</td>
<td>Group 3 - Not classifiable - Supplement 7 [1987], Monograph 19 [1979]</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
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</tr>
</tbody>
</table>

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)
Group 3 - Not classifiable as to its carcinogenicity to humans

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)
Reproductive toxicity: No data is available.

Reproductive Effects: No information available.
Developmental Effects: No information available.
Teratogenic Effects: No information available.

Specific Target Organ Toxicity:
STOT - single exposure: No information available.
STOT - repeated exposure: No information available.
Target Organs: No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity:
Ecotoxicity effects: No data available.

Persistence and degradability: No information available.
Bioaccumulative potential: No information available.
Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods:
Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

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

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<thead>
<tr>
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<tr>
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<td>None</td>
<td>None</td>
<td>None</td>
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</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT:
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Class: No information available
Packing group: No information available
Emergency Response Guide Number: No information available

Special Provisions: No Information available
Symbol(s): No information available
Description: No information available

Product code: PO141
Product name: POLYVINYL ALCOHOL, 99-100 PERCENT, HYDROLYZED, REAGENT
TDG (Canada)

- **UN-No:** Not Regulated
- **Proper Shipping Name:** No information available
- **Hazard Class:** No information available
- **Subsidiary Risk:** No information available
- **Packing Group:** No information available
- **Marine Pollutant:** No information available
- **Description:** No information available

ADR

- **UN-No:** Not Regulated
- **Proper Shipping Name:** No information available
- **Hazard Class:** No information available
- **Packing Group:** No information available
- **Subsidiary Risk:** No information available

IMO / IMDG

- **UN-No:** Not Regulated
- **Proper Shipping Name:** No information available
- **Hazard Class:** No information available
- **Packing Group:** No information available
- **Subsidiary Risk:** No information available

RID

- **UN-No:** Not Regulated
- **Proper Shipping Name:** No information available
- **Hazard Class:** No information available
- **Packing Group:** No information available
- **Subsidiary Risk:** No information available

ICAO

- **UN-No:** Not Regulated
- **Proper Shipping Name:** No information available
- **Hazard Class:** No information available
- **Packing Group:** No information available
- **Subsidiary Risk:** No information available

IATA

- **UN-No:** Not Regulated
- **Proper Shipping Name:** No information available
- **Hazard Class:** No information available
- **Packing Group:** No information available
- **ERG Code:** No information available
- **Special Provisions:** No information available

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**15. REGULATORY INFORMATION**

**International Inventories**

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<th>Components</th>
<th>CAS-No.</th>
<th>U.S. TSCA</th>
<th>KOREA KECL</th>
<th>Philippines (PICCS)</th>
<th>Japan ENCS</th>
<th>CHINA</th>
<th>Australia (AICS)</th>
<th>EINECS-No.</th>
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<tbody>
<tr>
<td>Polyvinyl Alcohol</td>
<td>9002-89-5</td>
<td>PresentACTIVE</td>
<td>Present KE-29060</td>
<td>Present (6)-682</td>
<td>Present</td>
<td>Present</td>
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**U.S. Regulations**

- **Product code:** PO141
- **Product name:** POLYVINYL ALCOHOL, 99-100 PERCENT, HYDROLYZED, REAGENT
Polyvinyl Alcohol

FDA - 21 CFR - Total Food Additives 175.105, 175.300, 175.320, 176.170, 176.180, 177.1200, 177.1670, 177.2260, 177.2800, 178.3910, 181.30, 73.1


Chemicals Known to the State of California to Cause Cancer:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Carcinogen</th>
<th>Developmental Toxicity</th>
<th>Male Reproductive Toxicity</th>
<th>Female Reproductive Toxicity</th>
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</table>

CERCLA/SARA

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>CERCLA - Hazardous Substances and their Reportable Quantities</th>
<th>Section 302 Extremely Hazardous Substances and TPQs</th>
<th>Section 302 Extremely Hazardous Substances and RQs</th>
<th>Section 313 - Chemical Category</th>
<th>Section 313 - Reporting de minimis</th>
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<td>9002-89-5</td>
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U.S. TSCA

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)</th>
<th>TSCA 8(d) - Health and Safety Reporting</th>
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<td>Polyvinyl Alcohol</td>
<td>9002-89-5</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
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</table>

Canada

WHIMIS 2015 - GHS Classifications

WHIMIS 2015 Hazard Classification Information: Not a dangerous product according to HPR classification criteria.

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

Inventory

<table>
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<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Canada (DSL)</th>
<th>Canada (NDSL)</th>
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<th>Components</th>
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<th>CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting</th>
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EU Classification

EU GHS - SV - CLP 1272/2008

Product code: PO141

Product name: POLYVINYL ALCOHOL, 99-100 PERCENT, HYDROLYZED, REAGENT
### Components

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**EU - CLP (1272/2008)**

#### R-phrase(s)

not determined (not applicable)

#### S-phrase(s)

none

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<th>Classification</th>
<th>Concentration Limits:</th>
<th>Safety Phrases</th>
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</table>

The product is classified in accordance with Annex VI to Directive 67/548/EEC

#### Indication of danger:

None.

### 16. OTHER INFORMATION

**Preparation Date:** 06/16/2015  
**Revision Date:** 10/16/2018  
**Prepared by:** Sonia Owen

**Disclaimer:**

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet