SAFETY DATA SHEET

USP 300 WB PVC SINGLE PLY ADHESIVE

™ Trademark, Ashland or its subsidiaries, registered in various countries

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Ashland
P.O. Box 2219
Columbus, OH 43216

Product name: USP 300 WB PVC SINGLE PLY ADHESIVE
™ Trademark, Ashland or its subsidiaries, registered in various countries

Product code: USP 300

Regulatory Information Number: 1-800-325-3751
Telephone: 614-790-3333
Emergency telephone number: 1-800-ASHLAND (1-800-274-5263)

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid, white

CAUTION! MAY BE HARMFUL IF SWALLOWED.

Potential Health Effects

Exposure routes
Inhalation, Skin contact, Eye Contact, Ingestion

Eye contact
May cause mild eye irritation. Symptoms include stinging, tearing, and redness.

Skin contact
May cause slight skin irritation.

Ingestion
Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.
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Inhalation
Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition
Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material; lung (for example, asthma-like conditions)

Symptoms
Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways)

Target Organs
No data

Carcinogenicity
Vinyl acetate caused an increase in cancer of the nasal cavity in rats. The relevance of this finding to humans is uncertain. The International Agency for Research on Cancer (IARC) reclassified this chemical from Group 3 (not able to be classified) to Group 2B (possibly carcinogenic in humans) in 1995. This classification is based on the study in rats, along with knowledge that vinyl acetate is changed to acetaldehyde, a known animal carcinogen, in the body.

Reproductive hazard
There are no data available for assessing risk to the fetus from maternal exposure to this material.

Other information
Formaldehyde has been identified as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) and the Occupational Safety and Health Administration (OSHA). Formaldehyde is irritating to the eyes, nose, throat, and airways, and can cause an allergic reaction (causes narrowing of the air passages of the lungs, sweating, flushing, hives, rapid heart rate, and lowered blood pressure). In addition, formaldehyde can cause an allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects). It is harmful if inhaled, swallowed or absorbed through skin.
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3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>CAS-No. / Trade Secret No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALCOHOLS, C11-14-ISO-, C13-RICH, ETHOXYLATED</td>
<td>78330-21-9</td>
<td>&gt;=5,&lt;10%</td>
</tr>
<tr>
<td>VINYL ACETATE MONOMER</td>
<td>108-05-4</td>
<td>&gt;=0.5,&lt;1%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eyes
If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.

Skin
Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion
Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation
If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Notes to physician

Hazard: No information available.
Treatment: No information available.
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5. FIREFIGHTING MEASURES

Suitable extinguishing media
Water mist, Carbon dioxide (CO2), Dry chemical

Hazardous combustion products
acetic acid, acrolein, Aldehydes, carbon dioxide and carbon monoxide, various hydrocarbons

Precautions for fire-fighting
No special fire hazards are known to be associated with this product. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

NFPA Flammable and Combustible Liquids Classification
not applicable

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
No data

Environmental precautions
No data

Methods for cleaning up
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers. Absorb liquid on vermiculite, floor absorbent or other absorbent material.

7. HANDLING AND STORAGE

Handling
Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Storage

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Store in a cool, dry, ventilated area, away from incompatible substances. Store above 40 degrees F (5 degrees C).

8. EXPOSURE CONTROLS/PERSOANL PROTECTION

Exposure Guidelines
Contains no substances with occupational exposure limit values.

General advice
These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls
Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Eye protection
Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Skin and body protection
Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.
Wear resistant gloves such as:
Natural Rubber

Respiratory protection
A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical state</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>white</td>
</tr>
<tr>
<td>Odour</td>
<td>sweet</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>(&gt;212 °F / 100 °C)</td>
</tr>
<tr>
<td>pH</td>
<td>5.0</td>
</tr>
<tr>
<td>Flash point</td>
<td>not applicable</td>
</tr>
<tr>
<td>Density</td>
<td>1.08 g/cm³</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Stability
 Stable.

Conditions to avoid
 None known.

Incompatible products
 Alkali metals, peroxides, strong alkalis, strong mineral acids, strong oxidizing agents

Hazardous decomposition products
 acetic acid, acrolein, Aldehydes, carbon dioxide and carbon monoxide, various hydrocarbons

Hazardous reactions
 Product will not undergo hazardous polymerization.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity
 Acute oral toxicity - : LD 50: > 2,000 mg/kg Species: Rat
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<table>
<thead>
<tr>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute oral toxicity - Components</strong></td>
</tr>
<tr>
<td>ALCOHOLS, C11-14-ETHOXYLATED</td>
</tr>
<tr>
<td>VINYL ACETATE MONOMER</td>
</tr>
</tbody>
</table>

**Acute inhalation toxicity**

<table>
<thead>
<tr>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute inhalation toxicity - Components</td>
</tr>
<tr>
<td>VINYL ACETATE MONOMER</td>
</tr>
</tbody>
</table>

**Acute dermal toxicity**

<table>
<thead>
<tr>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute dermal toxicity - Components</td>
</tr>
<tr>
<td>VINYL ACETATE MONOMER</td>
</tr>
</tbody>
</table>

**Acute toxicity (other routes of administration)**

<table>
<thead>
<tr>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (other routes of administration)</td>
</tr>
<tr>
<td>no data available</td>
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</tbody>
</table>

12. ECOLOGICAL INFORMATION

**Biodegradability**

<table>
<thead>
<tr>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biodegradability - Product</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biodegradability - Components</td>
</tr>
</tbody>
</table>

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| ALCOHOLS, C11-14-ISO-, C13-RICH, ETHOXYLATED | > 60 % Remarks: Readily biodegradable |

Bioaccumulation

Bioaccumulation - Product : no data available

Ecotoxicity effects

Toxicity to fish

Toxicity to fish - Product : no data available

Toxicity to fish - Components

| ALCOHOLS, C11-14-ISO-, C13-RICH, ETHOXYLATED | LC 50: 1 - 10 mg/l Exposure time: 96 h Species: Leuciscus idus (Golden orfe) Remarks: Information given is based on data obtained from similar substances. |
| VINYL ACETATE MONOMER | LC 50: 14 mg/l Exposure time: 96 h Species: Fathead minnow (Pimephales promelas) Test Type: static test |

Toxicity to daphnia and other aquatic invertebrates

Toxicity to daphnia and other aquatic invertebrates : no data available

Toxicity to daphnia and other aquatic invertebrates - Components

| ALCOHOLS, C11-14-ISO-, C13-RICH, ETHOXYLATED | EC 50: 1 - 10 mg/l Exposure time: 48 h Species: Aquatic invertebrates Remarks: Information given is based on data obtained from similar substances. |
| VINYL ACETATE | LC 50: 330 mg/l |
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<table>
<thead>
<tr>
<th>MONOMER</th>
<th>Exposure time: 24 h</th>
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<tbody>
<tr>
<td></td>
<td>Species: Water flea (Daphnia magna)</td>
</tr>
<tr>
<td></td>
<td>Test Type: static test</td>
</tr>
</tbody>
</table>

Toxicity to algae

| Toxicity to algae - Product | no data available |

Toxicity to bacteria

| Toxicity to bacteria - Product | no data available |

13. DISPOSAL CONSIDERATIONS

Waste disposal methods
Destroy by liquid incineration in accordance with applicable regulations. Dispose of in accordance with all applicable local, state and federal regulations.

14. TRANSPORT INFORMATION

REGULATION

<table>
<thead>
<tr>
<th>ID NUMBER</th>
<th>PROPER SHIPPING NAME</th>
<th>*HAZARD CLASS</th>
<th>SUBSIDIARY HAZARDS</th>
<th>PACKING GROUP</th>
<th>MARINE POLLUTANT / LTD. QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. DOT - ROAD</td>
<td>Not dangerous goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. DOT - RAIL</td>
<td>Not dangerous goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. DOT - INLAND WATERWAYS</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
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Not dangerous goods

TRANSPORT CANADA - ROAD
Not dangerous goods

TRANSPORT CANADA - RAIL
Not dangerous goods

TRANSPORT CANADA - INLAND WATERWAYS
Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS
Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO
Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER
Not dangerous goods

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES
Not dangerous goods
*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

California Prop. 65
WARNING! This product contains a chemical known to the State of California to cause cancer. FORMALDEHYDE

SARA Hazard Classification
SARA 311/312 Classification
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Acute Health Hazard
Chronic Health Hazard

SARA 313 Component(s)
VINYL ACETATE MONOMER 0.99 %

Notification status

<table>
<thead>
<tr>
<th>Country/Act</th>
<th>Status</th>
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<tbody>
<tr>
<td>Australia. Industrial Chemical (Notification and Assessment Act)</td>
<td>y (positive listing)</td>
</tr>
<tr>
<td>EU. EINECS</td>
<td>y (positive listing)</td>
</tr>
<tr>
<td>New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand</td>
<td>n (Negative listing)</td>
</tr>
<tr>
<td>Japan. Kashin-Hou Law List</td>
<td>y (positive listing)</td>
</tr>
<tr>
<td>Korea. Toxic Chemical Control Law (TCCL) List</td>
<td>y (positive listing)</td>
</tr>
<tr>
<td>US. Toxic Substances Control Act</td>
<td>y (positive listing)</td>
</tr>
</tbody>
</table>

Reportable quantity - Product

US. EPA CERCLA Hazardous Substances (40 CFR 302) 100100 lbs

Reportable quantity - Components

<table>
<thead>
<tr>
<th>Component</th>
<th>HMIS</th>
<th>NFPA</th>
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</thead>
<tbody>
<tr>
<td>FORMALDEHYDE</td>
<td>50-00-0</td>
<td>100 lbs</td>
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<table>
<thead>
<tr>
<th>Category</th>
<th>HMIS</th>
<th>NFPA</th>
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<tbody>
<tr>
<td>Health</td>
<td>1*</td>
<td>--</td>
</tr>
<tr>
<td>Flammability</td>
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<td>--</td>
</tr>
<tr>
<td>Physical hazards</td>
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<td>--</td>
</tr>
<tr>
<td>Instability</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

16. OTHER INFORMATION
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The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).