MATERIAL SAFETY DATA SHEET

ARDEX AF 961

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
ARDEX AF 961 PRESSURE SENSITIVE FLOORING ADHESIVE

CHEMICAL DESCRIPTION
Water-based acrylic emulsion latex

PRODUCT USE
Water-based adhesive for installing vinyl backed carpet tiles

SUPPLIER
Company: ARDEX (SHANGHAI) CO., LTD.
Address:
4500 TingFeng Rd
Jinshan District
Shanghai, 201500
CHINA
Telephone: +86 (0)21 5733 2418
Fax: +86 (0)21 5733 2419
Emergency: +86 139 1887 3349
Website: http://www.ardexcchina.com

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE
NON-HAZARDOUS SUBSTANCE
NON-DANGEROUS GOODS

HMIS HAZARD INDEX
HEALTH = 1   FLAMMABILITY = 1   REACTIVITY = 0
4 = Severe   3=Serious   2=Moderate   1=Slight   0=Minimal

HAZARD RATINGS

<table>
<thead>
<tr>
<th>HEALTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity</td>
</tr>
</tbody>
</table>

Body Contact
Chronic

TRANSPORTATION & STORAGE
Flammability
Reactivity
SCALE: Min/Nil = 0 Low = 1 Moderate = 2 High = 3 Extreme = 4

POISONS SCHEDULE: None
RISK
None under normal operating conditions.
SAFETY
None under normal operating conditions.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>NAME</th>
<th>CAS RN</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>acrylic emulsion polymer</td>
<td>Not Available</td>
<td>30 – 60</td>
</tr>
<tr>
<td>rosin ester</td>
<td>8050-30-4</td>
<td>10 – 30</td>
</tr>
<tr>
<td>mineral oil</td>
<td>64742-52-5</td>
<td>1 – 10</td>
</tr>
<tr>
<td>preservatives</td>
<td>Not Available</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>additives – non hazardous</td>
<td>Not Available</td>
<td>1 – 10</td>
</tr>
<tr>
<td>water</td>
<td>7732-18-5</td>
<td>to 100%</td>
</tr>
</tbody>
</table>

Section 4 - FIRST AID MEASURES

SWALLOWED
* Immediately give a glass of water.
* First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

EYE
>>> If this product comes in contact with eyes:
* Wash out immediately with water.
* If irritation continues, seek medical attention.
* Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN
>>> If skin or hair contact occurs:
* Flush skin and hair with running water (and soap if available).
* Seek medical attention in event of irritation.
INHALED
* If fumes of combustion products are inhaled remove from contaminated area.
* Other measures are usually unnecessary.

NOTES TO PHYSICIAN
>>> Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
* There is no restriction on the type of extinguisher which may be used.
* Use extinguishing media suitable for surrounding area.

FIRE FIGHTING
* Use water delivered as a fine spray to control fire and cool adjacent area.
* Do not approach containers suspected to be hot.
* Cool fire exposed containers with water spray from a protected location.
* If safe to do so, remove containers from path of fire.
* Equipment should be thoroughly decontaminated after use.

FIRE/EXPLOSION HAZARD
* Non combustible.
* Not considered a significant fire risk, however containers may burn.

FIRE INCOMPATIBILITY
>>> None known.

HAZCHEM CODE: None

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS
* Clean up all spills immediately.
* Avoid contact with skin and eyes.
* Wear impervious gloves and safety goggles.
* Trowel up/scrape up.
* Place spilled material in clean, dry, sealed container.
* Flush spill area with water.

MAJOR SPILLS
* Clear area of personnel and move upwind.
* Alert Fire Brigade and tell them location and nature of hazard.
* Control personal contact by using protective equipment.
* Prevent spillage from entering drains, sewers or water courses.
* Recover product wherever possible.
* Put residues in labelled containers for disposal.
* If contamination of drains or waterways occurs, advise emergency services.

**Personal Protective Equipment advice is contained in Section 8 of the MSDS.**

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**Section 7 - HANDLING AND STORAGE**

**PROCEDURE FOR HANDLING**

* Limit all unnecessary personal contact.
* Wear protective clothing when risk of exposure occurs.
* Use in a well-ventilated area.
* Avoid contact with incompatible materials.
* When handling, DO NOT eat, drink or smoke.
* Keep containers securely sealed when not in use.
* Avoid physical damage to containers.
* Always wash hands with soap and water after handling.
* Work clothes should be laundered separately.
* Use good occupational work practice.
* Observe manufacturer’s storing and handling recommendations.
* Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

**SUITABLE CONTAINER**

* Polyethylene or polypropylene container.
* Packing as recommended by manufacturer.
* Check all containers are clearly labelled and free from leaks.

**STORAGE INCOMPATIBILITY**

>>> Avoid contamination of water, foodstuffs, feed or seed.

None known.

**STORAGE REQUIREMENTS**

* Store in original containers.
* Keep containers securely sealed.
* No smoking, naked lights or ignition sources.
* Store in a cool, dry, well-ventilated area.
* Store away from incompatible materials and foodstuff containers.
* Protect containers against physical damage and check regularly for leaks.
* Observe manufacturer’s storing and handling recommendations.
Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

MATERIAL DATA

>>> Not available. Refer to individual constituents.

PERSONAL PROTECTION

EYE

* Safety glasses with side shields
* Chemical goggles.
* Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly.

HANDS/FEET

>>> Wear general protective gloves, eg. light weight rubber gloves.

OTHER

>>> No special equipment needed when handling small quantities.

OTHERWISE:

* Overalls.
* Barrier cream.
* Eyewash unit.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information consult your Occupational Health and Safety Advisor.

ENGINEERING CONTROLS

>>> General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed usage areas.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Light-beige viscous liquid, slight acrylic-rosin odour.

PHYSICAL PROPERTIES

Mixes with water.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular Weight:</td>
<td>Blend of Materials / Not Applicable</td>
</tr>
<tr>
<td>Melting Range (°C):</td>
<td>Not Available</td>
</tr>
<tr>
<td>Boiling Range (°C):</td>
<td>IBP = 100°C (Water)</td>
</tr>
<tr>
<td>Specific Gravity (Water = 1)</td>
<td>1.00 – 1.05</td>
</tr>
<tr>
<td>Solubility in Water (g/L):</td>
<td>Miscible</td>
</tr>
<tr>
<td>pH (1% Solution):</td>
<td>pH (as supplied):</td>
</tr>
<tr>
<td></td>
<td>8.5 - 10</td>
</tr>
<tr>
<td>Vapour Pressure (kPa):</td>
<td>Not Available</td>
</tr>
<tr>
<td>Volatiles (&lt;250°C / %Wt):</td>
<td>51.5</td>
</tr>
<tr>
<td>Evaporation Rate (n-Bu Ac = 1):</td>
<td>Not Available</td>
</tr>
<tr>
<td>Vapour Density (air = 1):</td>
<td>Not Available</td>
</tr>
<tr>
<td>Flash Point (°C):</td>
<td>Not Available</td>
</tr>
</tbody>
</table>
## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

### CONDITIONS CONTRIBUTING TO INSTABILITY

>>> Product is considered stable and hazardous polymerisation will not occur.

For incompatible materials - refer to Section 7 - Handling and Storage.

## Section 11 - TOXICOLOGICAL INFORMATION

### POTENTIAL HEALTH EFFECTS

#### ACUTE HEALTH EFFECTS

**SWALLOWED**

>>> The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g., liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

**EYE**

>>> Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).

**SKIN**

>>> The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

**INHALED**

>>> The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

#### CHRONIC HEALTH EFFECTS

>>> Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.

#### TOXICITY AND IRRITATION

>>> No information available. Refer to individual constituents.
Section 13 - DISPOSAL CONSIDERATIONS

* Recycle wherever possible or consult manufacturer for recycling options.
* Consult Relevant Land Waste Management Authority for disposal.
* Bury residue in an authorised landfill.
* Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION

HAZCHEM CODE: None
UN No: None
NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE: None
REGULATIONS

>>> ARDEX AF 961 - CAS No: None

Section 16 - OTHER INFORMATION

>>> This MSDS is a Hazard Information tool and should be used to assist in Risk Assessment. Many factors determine the ultimate Hazards are Risks in transportation or the workplace.

This is the end of the MSDS