UYEMURA INTERNATIONAL CORPORATION
MATERIAL SAFETY DATA SHEET
Product Name: Accemulta MPD-32 Revised: 8/07 Revision: A
MSDS code: 31-0032

UIC urges each customer or recipient of this MSDS to study carefully to become aware of and understand the hazards associated with this product. The reader should consider consulting reference works or individuals that are experts in ventilation, toxicology, and fire prevention, as necessary or appropriate to use and understand the data contained in this MSDS.

To promote safe handling, each customer or recipient should: 1) Notify its employees, agents, contractors and others whom it knows or believes will use this material or the information in this MSDS and any other information regarding hazards or safety; 2) Furnish this same information to each of its customers for the product; and 3) Request its customers to notify their employees, customers, and other users of the product of this information.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 IDENTIFICATION

Product name: Accemulta MPD-32
Chemical name: Aqueous solution containing a palladium salt
Formula: Not applicable

1.2 COMPANY IDENTIFICATION

Uyemura International Corporation
3990 Concours, Suite 425
Ontario, CA 91761
(909) 466-5635

UIC Technical Center
240 Town Line Road
Southington, CT 06489
(860) 793-4011

1.3 EMERGENCY TELEPHONE NUMBER

24 hours a day: In case of spill, leak, exposure or accident- Call Chemtree 1-800-424-9300. For International Call +1-703-527-3887 (Collect)
Number for non-emergency questions concerning MSDS (860)793-4011 Additional information on this product may be obtained by calling (800)243-3564

2. COMPOSITION INFORMATION

<table>
<thead>
<tr>
<th>Principal Hazardous Component(s)</th>
<th>CAS#</th>
<th>Amount (%)</th>
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<tbody>
<tr>
<td>Phosphoric acid</td>
<td>7664-38-2</td>
<td>2.0</td>
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3. HAZARD IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Appearance       Light brown

Physical state   Liquid

Odor             None

Hazard of product No dangerous reactions are known to occur with correct handling and storage.

3.2 POTENTIAL HEALTH EFFECTS

Effects of Single Acute Overexposure
This product may cause mild irritation to eyes and skin upon contact. Very slightly dangerous in case of skin contact (sensitizer), of ingestion.

Chronic, Prolonged Exposure or Repeated Overexposure
CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. Toxicity of the product to the reproductive system: Not available. Repeated or prolonged exposure is not known to aggravate medical conditions.

3.3 POTENTIAL ENVIRONMENTAL EFFECTS
None known

4. FIRST AID PROCEDURES

SKIN AND EYES: On skin contact, rinse thoroughly with water. Remove contaminated or saturated clothing. Be careful to clean folds, crevices, creases and groin. Cold water can be used. Cover irritated skin with emollient. If irritation persists, seek medical advice. On eye contact, rinse thoroughly with plenty of water keeping eyelid open. Seek medical attention.

INHALATION: Bring affected person outside and ensure that he/she is comfortable. Seek medical attention immediately.

INGESTION: Remove dentures. Watch for an obstruction in the victim’s mouth. Remove if possible but do not force fingers or a hard object between the victim’s teeth. Have conscious person drink several glasses of water or milk. Induce vomiting by sticking finger in throat. Seek immediate medical attention.
5. FIRE FIGHTING MEASURES

Flash Point (Method used): Non-Flammable  Flammable Limits  Uel: N/A
Extinguishing Media: all extinguishing media suitable  LeL: N/A
Special Fire Fighting Procedures: None
Unusual Fire and Explosion Hazards: None known

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken in case material is released or spilled: Liquid or solid spills should be responded to immediately. The spill, if liquid can be absorbed with an inert material; the solid spill can be swept or shoveled and put into a clean container/cover to ensure proper containment. All cleanup materials when contained must be labeled properly and stored in a safe place to await proper disposal. Persons performing the clean-up work should wear personal protective clothing and equipment.

7. HANDLING AND STORAGE

7.1 HANDLING

General Handling
Do not breathe vapor
Do not get in eyes, on skin, on clothing
Do not swallow
Keep container closed
Use with adequate ventilation
Wash thoroughly after handling
Prevent any penetration into the ground

NOT INTENDED FOR DRUG USE. FOR INDUSTRIAL USE ONLY.

Ventilation
General (mechanical ventilation is expected satisfactory where this product is stored and handled in closed equipment. Special, local ventilation is needed at points where vapors can be expected to escape to the workplace air.

Other Precautions
None

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with work place related limits to be monitored
Ammonium chloride  CAS# 12125-02-9  TWA 10 mg/M3
Respiratory Protection (Specify type): Use appropriate MSHA/NIOSH approved respirator or equivalent if levels exceed exposure limits
9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (°F) : 100°C  
Specific Gravity (H₂O=1) : 1.09

Melting Point:  N/A

Vapor Pressure (mm Hg) : N/A  
% Volatile by Volume : N/A

Vapor Density (air=1) : N/A  
Evaporation Rate : N/A

Solubility in Water : Fully miscible  
ph value:  6.4

Appearance and Odor : Light brown liquid, no odor.

10. STABILITY AND REACTIVITY

Stability -- Stable  
Condition to Avoid : High temperatures

Incompatibility (Materials to avoid) : Oxidizing agents, strong acids, strong alkali

Hazardous Decomposition Products : Not available

Hazardous Polymerization -- Can Not Occur

11. TOXICOLOGICAL INFORMATION

Slightly dangerous to dangerous in case of skin contact (irritant), of eye contact (irritant), of inhalation. Very slightly dangerous in case of skin contact (sensitizer), of ingestion.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information
No ecotoxicological studies are available
13. DISPOSAL CONSIDERATIONS

Dispose according to Federal, State and local regulations. Do not allow product to reach sewage system. Dispose of empty containers according to regulations. Contains palladium

14. TRANSPORT INFORMATION

Shipping Information
DOT
Proper Shipping Name: Chemical, N.O.I.
Hazard Class: Not Regulated
ID number:
DOT Labels:
Special Information
Packing Group:
Reportable quantity:

15. REGULATORY INFORMATION

U.S. Federal Regulations
TSCA Inventory Status: Reported/Included
HAZARDOUS CHEMICAL LISTS
SARA Extremely Hazardous Substance: No
CERCLA Hazardous Substance: yes
SARA Toxic Chemical: yes

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III Sections 311 and 312
Delayed Hazard: No
Fire Hazard: No
Immediate Health Hazard: yes
Reactive Hazard: No

This product contains the following EPCRA Section 313 chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 372)

CAS# Chemical name Reportable Percent by weight
7664-38-2 Phosphoric acid 2

Canadian Regulations:
HIMIS Rating: Health (2), Flammability(0), Reactivity (0)
4= Extreme; 3= Severe; 2 = Moderate ; 1= Slight ; 0 =No known hazard
The information, recommendations and suggestions herein are believed to be reliable. However, it is the users responsibility to determine the safe handling and suitability for his/her use of the product described herein. Since the use by others is outside our control, no guarantee, expressed or implied, is made by Uyemura International Corporation as to the effects of such use, the results obtained or the safety and toxicity of the product nor does UIC per se assume any liability arising out of use, by others of the product referred to herein. Nor is the information herein to be construed as absolutely complete since more information may be desirable or necessary when particular or exceptional circumstances exist, or because of applicable laws or government regulations. End of MSDS