SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: Rehydrophos, Aluminum Phosphate Compressed Gel

Intended Use of the Product

Pharmaceutical Ingredient. Vaccine adjuvant, protein separations. For professional use only.

Name, Address, and Telephone of the Responsible Party

Manufacturer

CHEMTRADE LOGISTICS INC.
155 Gordon Baker Road
Suite 300
Toronto, Ontario M2H 3N5
For SDS Info: (416) 496-5856
www.chemtradelogistics.com

Emergency Telephone Number

Emergency Number: Canada: CANUTEC +1-613-996-6666 / US: CHEMTREC +1-800-424-9300
INTERNATIONAL: +1-703-741-5970
Chemtrade Emergency Contact: (866) 416-4404
For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS Classification

Not classified

Label Elements

GHS Labeling

No labeling applicable

Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

Unknown acute toxicity

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%*</th>
<th>GHS Ingredient Classification</th>
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</thead>
<tbody>
<tr>
<td>Water</td>
<td>(CAS No) 7732-18-5</td>
<td>60 – 90</td>
<td>Not classified</td>
</tr>
<tr>
<td>Aluminum phosphate</td>
<td>(CAS No) 7784-30-7</td>
<td>1 - 10</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

SECTION 4: FIRST AID MEASURES

Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.
Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

**Most Important Symptoms and Effects Both Acute and Delayed**

- **General:** Not expected to present a significant hazard under anticipated conditions of normal use.
- **Inhalation:** Prolonged exposure may cause irritation.
- **Skin Contact:** Prolonged exposure may cause skin irritation.
- **Eye Contact:** May cause slight irritation to eyes.
- **Ingestion:** Ingestion may cause adverse effects.
- **Chronic Symptoms:** None expected under normal conditions of use.

**Indication of Any Immediate Medical Attention and Special Treatment Needed**

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

### SECTION 5: FIRE-FIGHTING MEASURES

**Extinguishing Media**

- **Suitable Extinguishing Media:** Water spray, dry chemical, foam, carbon dioxide.
- **Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

**Special Hazards Arising From the Substance or Mixture**

- **Fire Hazard:** Not flammable.
- **Explosion Hazard:** Product is not explosive.
- **Reactivity:** Hazardous reactions will not occur under normal conditions.

**Advice for Firefighters**

- **Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.
- **Firefighting Instructions:** Use water spray or fog for cooling exposed containers.
- **Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.
- **Hazardous Combustion Products:** Oxides of aluminum. Phosphorus oxides.

**Reference to Other Sections**

Refer to Section 9 for flammability properties.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures**

- **General Measures:** Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapor, mist, spray).
- **For Non-Emergency Personnel**
- **Protective Equipment:** Use appropriate personal protective equipment (PPE).
- **Emergency Procedures:** Evacuate unnecessary personnel.
- **For Emergency Personnel**
- **Protective Equipment:** Equip cleanup crew with proper protection.
- **Emergency Procedures:** Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

**Environmental Precautions**

Prevent entry to sewers and public waters.

**Methods and Materials for Containment and Cleaning Up**

- **For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
- **Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

**Reference to Other Sections**

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

### SECTION 7: HANDLING AND STORAGE

**Precautions for Safe Handling**

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapors, mist, spray.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures.
Rehydrophos
Safety Data Sheet

Conditions for Safe Storage, Including Any Incompatibilities
Technical Measures: Comply with applicable regulations.
Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.
Incompatible Materials: Strong acids, strong bases, strong oxidizers.
Specific End Use(s)
Pharmaceutical Ingredient. Vaccine adjuvant, protein separations. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
Control Parameters
For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Exposure Controls
Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.


Materials for Protective Clothing: Chemically resistant materials and fabrics.
Hand Protection: Wear protective gloves.
Eye Protection: Chemical safety goggles.
Skin and Body Protection: Wear suitable protective clothing.
Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.
Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES
Information on Basic Physical and Chemical Properties
Physical State : Liquid
Appearance : White, gelatinous precipitate
Odor : None
Odor Threshold : Not available
pH : 6 - 8
Evaporation Rate : Not available
Melting Point : Not available
Freezing Point : Not available
Boiling Point : Not available
Flash Point : Not flammable
Auto-ignition Temperature : Not applicable
 Decomposition Temperature : Not available
Flammability (solid, gas) : Not applicable
Lower Flammable Limit : Not applicable
Upper Flammable Limit : Not applicable
Vapor Pressure : Not available
Relative Vapor Density at 20°C : Not available
Relative Density : Not available
Specific Gravity : 1.01 - 1.25
Rehydrophos
Safety Data Sheet

Solubility: Negligible
Partition Coefficient: N-Octanol/Water: Not available
Viscosity: Sheer thinning

SECTION 10: STABILITY AND REACTIVITY
Reactivity: Hazardous reactions will not occur under normal conditions.
Chemical Stability: Stable under recommended handling and storage conditions (see section 7).
Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
Conditions to Avoid: Direct sunlight, extremely high or low temperatures, and incompatible materials.
Incompatible Materials: Strong acids, strong bases, strong oxidizers.
Hazardous Decomposition Products: None expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION
Information on Toxicological Effects - Product
Acute Toxicity (Oral): Not classified
Acute Toxicity (Dermal): Not classified
Acute Toxicity (Inhalation): Not classified
LD50 and LC50 Data: Not available
Skin Corrosion/Irritation: Not classified
pH: 6 - 8
Eye Damage/Irritation: Not classified
pH: 6 - 8
Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
Carcinogenicity: Not classified
Specific Target Organ Toxicity (Repeart Exposure): Not classified
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified
Aspiration Hazard: Not classified
Symptoms/Effects After Inhalation: Prolonged exposure may cause irritation.
Symptoms/Effects After Skin Contact: Prolonged exposure may cause skin irritation.
Symptoms/Effects After Eye Contact: May cause slight irritation to eyes.
Symptoms/Effects After Ingestion: Ingestion may cause adverse effects.
Chronic Symptoms: None expected under normal conditions of use.

Information on Toxicological Effects - Ingredient(s)
LD50 and LC50 Data:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>LD50 Oral Rat</th>
<th>LD50 Dermal Rat</th>
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<tr>
<td>Aluminum phosphate (7784-30-7)</td>
<td>&gt; 4640 mg/kg</td>
<td>&gt; 4640 mg/kg</td>
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</table>

SECTION 12: ECOLOGICAL INFORMATION
Toxicity
Ecology - General: Not classified.

Persistence and Degradability
Rehydrophos, Aluminum Phosphate Compressed Gel
Persistence and Degradability: Not established.

Bioaccumulative Potential
Rehydrophos, Aluminum Phosphate Compressed Gel
Bioaccumulative Potential: Not established.

Mobility in Soil: Not available

Other Adverse Effects
Other Information: Avoid release to the environment.
Rehydrophos
Safety Data Sheet

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations

Ecology - Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

Not regulated for transport according to: US DOT, IMDG, IATA, and Canada’s TDG

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

<table>
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<tr>
<th>Chemical Name (CAS No.)</th>
<th>CERCLA RQ</th>
<th>EPCRA 304 RQ</th>
<th>SARA 302 TPQ</th>
<th>SARA 313</th>
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<tr>
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<td>Not applicable</td>
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SARA 311/312 Not present

US TSCA Flags Not present

US State Regulations

California Proposition 65

<table>
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<tr>
<th>Chemical Name (CAS No.)</th>
<th>Carcinogenicity</th>
<th>Developmental Toxicity</th>
<th>Female Reproductive Toxicity</th>
<th>Male Reproductive Toxicity</th>
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<tr>
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<td>No</td>
<td>No</td>
<td>No</td>
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</table>

State Right-To-Know Lists

Aluminum phosphate (7784-30-7)

U.S. - Massachusetts - Right To Know List - No
U.S. - New Jersey - Right to Know Hazardous Substance List - Yes
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List - No
U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances - No
U.S. - Pennsylvania - RTK (Right to Know) List - No

Canadian Regulations

Aluminum phosphate (7784-30-7)

Listed on the Canadian DSL (Domestic Substances List)
Not listed on the Canadian NDSL (Non-Domestic Substances List)

International Inventories/Lists

<table>
<thead>
<tr>
<th>Chemical Name (CAS No.)</th>
<th>Australia AICS</th>
<th>Turkey CICR</th>
<th>Korea ECL</th>
<th>EU EINECS</th>
<th>EU ELINCS</th>
<th>EU SVHC</th>
<th>EU NLP</th>
<th>Mexico INSQ</th>
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<tr>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<th>Chemical Name (CAS No.)</th>
<th>China IECSC</th>
<th>Japan ENCS</th>
<th>Japan ISHL</th>
<th>Japan PDSCL</th>
<th>Japan PRTR</th>
<th>Philippines PICCS</th>
<th>New Zealand NZIOC</th>
<th>US TSCA</th>
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<td>Yes</td>
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<td>Yes</td>
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SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date: 05/09/2017

Revision Summary

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<th>Section</th>
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Rehydrophos
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</tbody>
</table>

**Other Information**

This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada’s Hazardous Products Regulations (HPR).

**NFPA 704**

**NFPA Health Hazard**: 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.

**NFPA Fire Hazard**: 1 - Must be preheated before ignition can occur.

**NFPA Reactivity Hazard**: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

**HMIS Rating**

- **Health**: 0 - Minimal Hazard - No significant risk to health
- **Flammability**: 1 - Slight Hazard
- **Physical**: 0 - Minimal Hazard
- **PPE**: See Section 8

**Abbreviations and Acronyms**

- AICS – Australian Inventory of Chemical Substances
- ACGIH – American Conference of Governmental Industrial Hygienists
- AIHA – American Industrial Hygiene Association
- ATE - Acute Toxicity Estimate
- BCF - Bioconcentration factor
- BEI - Biological Exposure Indices (BEI)
- CAS No. - Chemical Abstracts Service number
- CERCLA RQ - Comprehensive Environmental Response, Compensation, and Liability Act - Reportable Quantity
- CICR - Turkish Inventory and Control of Chemicals
- EC50 - Median effective concentration
- EC50 - Median Lethal Concentration
- LD50 - Median Lethal Dose
- LOAEL - Lowest Observed Adverse Effect Level
- LOEC - Lowest-observed-effect Concentration
- NIOSH - National Institute for Occupational Safety and Health
- NLP - Europe No Longer Polymers List
- NOAEL - No-Observed Adverse Effect Level
- NOEC - No-Observed Effect Concentration
- NZIOC - New Zealand Inventory of Chemicals
- OEL - Occupational Exposure Limits
- OSHA – Occupational Safety and Health Administration
- PEL - Permissible Exposure Limits
- PICCS - Philippine Inventory of Chemicals and Chemical Substances
- PDSCL - Philippine Inventory of Chemicals and Chemical Substances Control Law
- PPE – Personal Protective Equipment
- PRTR - Japan Pollutant Release and Transfer Register
- REL - Recommended Exposure Limit
- SAFETY - Self Accelerating Decomposition Temperature
- SARA - Superfund Amendments and Reauthorization Act
- SARA 302 - Section 302, 40 CFR Part 355
- SARA 311/312 - Sections 311 and 312, 40 CFR Part 370 Hazard Categories
- SARA 313 - Section 313, 40 CFR Part 372
- SARA 302 - Section 302, 40 CFR Part 355
- SRCL - Specifically Regulated Carcinogen List
- STEL - Short Term Exposure Limit
- SVHC – European Candidate List of Substance of Very High Concern
- TDG – Transport Canada Transport of Dangerous Goods Regulations
- TLM - Median Tolerance Limit
- TLV - Threshold Limit Value
- TPQ - Threshold Planning Quantity
- TSCA – United States Toxic Substances Control Act

- **ISHL** - Japan Industrial Safety and Health Law
- **LC50** - Median Lethal Concentration
- **LDA** - Median Lethal Dose
- **LOAEL** - Lowest Observed Adverse Effect Level
- **LOEC** - Lowest-observed-effect Concentration
- **NIOSH** - National Institute for Occupational Safety and Health
- **NLP** - Europe No Longer Polymers List
- **NOAEL** - No-Observed Adverse Effect Level
- **NOEC** - No-Observed Effect Concentration
- **NZIOC** - New Zealand Inventory of Chemicals
- **OEL** - Occupational Exposure Limits
- **OSHA** – Occupational Safety and Health Administration
- **PEL** - Permissible Exposure Limits
- **PICCS** - Philippine Inventory of Chemicals and Chemical Substances
- **PDSCL** - Philippine Inventory of Chemicals and Chemical Substances Control Law
- **PPE** – Personal Protective Equipment
- **PRTR** - Japan Pollutant Release and Transfer Register
- **REL** - Recommended Exposure Limit
- **SAFETY** - Self Accelerating Decomposition Temperature
- **SARA** - Superfund Amendments and Reauthorization Act
- **SARA 302** - Section 302, 40 CFR Part 355
- **SARA 311/312** - Sections 311 and 312, 40 CFR Part 370 Hazard Categories
- **SARA 313** - Section 313, 40 CFR Part 372
- **SRCL** - Specifically Regulated Carcinogen List
- **STEL** - Short Term Exposure Limit
- **SVHC** – European Candidate List of Substance of Very High Concern
- **TDG** – Transport Canada Transport of Dangerous Goods Regulations
- **TLM** - Median Tolerance Limit
- **TLV** - Threshold Limit Value
- **TPQ** - Threshold Planning Quantity
- **TSCA** – United States Toxic Substances Control Act

05/09/2017 EN (English US) SDS#: 6/7
Handle product with due care and avoid unnecessary contact. This information is supplied under U.S. OSHA’S “Right to Know” (29 CFR 1910.1200) and Canada’s WHMIS regulations. Although certain hazards are described herein, we cannot guarantee these are the only hazards that exist. The information contained herein is based on data available to us and is believed to be true and accurate but it is not offered as a product specification. No warranty, expressed or implied, regarding the accuracy of this data, the hazards connected with the use of the product, or the results to be obtained from the use thereof, is made and Chemtrade and its affiliates assume no responsibility. Chemtrade is a member of the CIAC (Chemistry Industry Association of Canada) and adheres to the codes and principles of Responsible Care™.