**** MATERIAL SAFETY DATA SHEET ****

PROSTAGLANDIN E1, 98%  

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: PROSTAGLANDIN E1, 98%  
Catalog Numbers: 23502-0000, 23502-0100

Synonyms:  
11,15-Dihydroxy-9-oxoprost-13-en-1-oic acid,  
3-Hydroxy-2-(3-hydroxy-1-octenyl)-5-oxo-cyclopentaneheptanoic acid,  
PGE1

Company Identification (Europe): Acros Organics BVBA  
Janssen Pharmaceuticala 3a  
2440 Geel, Belgium

Company Identification (USA): Acros Organics  
One Reagent Lane  
Fairlawn, NJ 07410

For information in North America, call: 800-ACROS-01
For information in Europe, call: 0032(0) 14575211
For emergencies in the US, call CHEMTREC: 800-424-9300
For emergencies in Europe, call: 0032(0) 14575299

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>%</th>
<th>EINECS#</th>
<th>Haz Symbols</th>
<th>Risk Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>745-65-3</td>
<td>PROSTAGLANDIN E1, 98%</td>
<td>98+</td>
<td>212-017-2</td>
<td>XN</td>
<td>22</td>
</tr>
</tbody>
</table>

Hazard Symbols: XN
Risk Phrases: 22

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW

Harmful if swallowed. Light sensitive.

Potential Health Effects

The toxicological properties of this material have not been investigated. Use appropriate procedures to prevent opportunities for direct contact with the skin or eyes and to prevent inhalation.

**** SECTION 4 - FIRST AID MEASURES ****

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids.

Skin:

Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion:

Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation:

Remove from exposure and move to fresh air immediately.

Notes to Physician:

**** SECTION 5 - FIRE FIGHTING MEASURES ****

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritants and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:

In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal.

**** SECTION 7 - HANDLING AND STORAGE ****

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

Storage:

Store in a cool, dry place. Keep container closed when not in use. Deep freeze (below -20°C).

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls:

Use adequate general or local exhaust ventilation to keep airborne
concentrations below the permissible exposure limits. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

**Personal Protective Equipment**

**Eyes:**
Wear safety glasses and chemical goggles if splashing is possible.

**Skin:**
Wear appropriate protective gloves and clothing to prevent skin exposure.

**Clothing:**
Wear appropriate protective clothing to minimize contact with skin.

**Respirators:**
Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

**Physical State:** Crystalline powder

**Color:** White

**Odor:** None reported.

**pH:** Not available.

**Vapor Pressure:** Not available.

**Viscosity:** Not available.

**Boiling Point:** Not available.

**Freezing/Melting Point:** 115.00 – 116.00 deg C

**Autoignition Temperature:** Not available.

**Flash Point:** Not available.

**Explosion Limits, lower:** Not available.

**Explosion Limits, upper:** Not available.

**Decomposition Temperature:**

**Solubility in water:** Insoluble

**Specific Gravity/Density:**

**Molecular Formula:** C20H34O5

**Molecular Weight:** 354.48

**** SECTION 10 - STABILITY AND REACTIVITY ****

**Chemical Stability:**
Stable under normal temperatures and pressures.

**Conditions to Avoid:**
Incompatible materials, excess heat, strong oxidants.

**Incompatibilities with Other Materials:**
Acids, bases.

**Hazardous Decomposition Products:**
Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

**Hazardous Polymerization:** Has not been reported.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

**RTECS#:**
CAS# 745-65-3: GY4569800

**LD50/LC50:**
CAS# 745-65-3: Oral, mouse: LD50 = 186 mg/kg; Oral, rat: LD50 = 228 mg/kg.

**Carcinogenicity:**
PROSTAGLANDIN E1, 98% –
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
See actual entry in RTECS for complete information.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

Dispose of in a manner consistent with federal, state, and local regulations.

**** SECTION 14 - TRANSPORT INFORMATION ****

**IATA**
No information available.

**IMDG**
No information available.

**RID/ADR**
No information available.

**** SECTION 15 - REGULATORY INFORMATION ****

**European/International Regulations**
European Labeling in Accordance with EC Directives

**Hazard Symbols:**
XN

**Risk Phrases:**
R 22 Harmful if swallowed.

**Safety Phrases:**

**WGK (Water Danger/Protection)**
CAS# 745-65-3: No information available.

**United Kingdom Occupational Exposure Limits**

**United Kingdom Maximum Exposure Limits**

**Canada**
None of the chemicals in this product are listed on the DSL/NDRI list.
CAS# 745-65-3 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits
US FEDERAL
TSCA
CAS# 745-65-3 is not listed on the TSCA inventory.
It is for research and development use only.

**** SECTION 16 – ADDITIONAL INFORMATION ****

MSDS Creation Date: 7/16/1996 Revision #0 Date: Original.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.