Material Safety Data Sheet
Beta-d-galactose pentaacetate, 99+%  
ACC# 20590

Section 1 - Chemical Product and Company Identification

**MSDS Name:** Beta-d-galactose pentaacetate, 99+%  
**Catalog Numbers:** AC158610000, AC1586100050, AC158610250, AC158611000  
**Synonyms:** None.  
**Company Identification:**  
- Acros Organics N.V.  
- One Reagent Lane  
- Fair Lawn, NJ 07410  
**For information in North America, call:** 800-ACROS-01  
**For emergencies in the US, call CHEMTREC:** 800-424-9300

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>EINECS/ELINCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>4163-60-4</td>
<td>beta-D-Galactose pentaacetate, 99+%</td>
<td>99+%</td>
<td>224-008-0</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Appearance: white solid.  
**Caution!** The toxicological properties of this material have not been fully investigated. This is expected to be a low hazard for usual industrial handling.  
**Target Organs:** None.

**Potential Health Effects**  
**Eye:** Non-irritating to the eyes.  
**Skin:** Non-irritating to the skin.  
**Ingestion:** The toxicological properties of this substance have not been fully investigated. Expected to be a low ingestion hazard.  
**Inhalation:** Low hazard for usual industrial handling.  
**Chronic:** No information found.

Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid.  
**Skin:** Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.  
**Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid if irritation or symptoms occur.  
**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.
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.
**Extinguishing Media:** Use water spray, dry chemical, or carbon dioxide.
**Flash Point:** Not available.
**Autoignition Temperature:** Not available.
**Explosion Limits, Lower:** Not available.
**Upper:** Not available.
**NFPA Rating:** Not published.

Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.
**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section.

Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Wash hands before eating. Use with adequate ventilation. Avoid contact with skin and eyes. Avoid ingestion and inhalation.
**Storage:** Store in a cool, dry place. Store in a tightly closed container.

Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Good general ventilation should be sufficient to control airborne levels.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>beta-D-Galactose pentaacetate, 99+%</td>
<td>None listed</td>
<td>None listed</td>
<td>None listed</td>
</tr>
</tbody>
</table>

**OSHA Vacated PELs:** beta-D-Galactose pentaacetate, 99+%: No OSHA Vacated PELs are listed for this chemical.

**Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
**Skin:** Wear appropriate protective gloves to prevent skin exposure.
**Clothing:** Wear appropriate protective clothing to minimize contact with skin.
**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

**Physical State:** Solid
**Appearance:** White
Odor: Not available.

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: 143 - 144 deg C

Decomposition Temperature: Not available.

Solubility: Not available.

Specific Gravity/Density: Not available.

Molecular Formula: C16H22O11

Molecular Weight: 390.33

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials.

Incompatibilities with Other Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: 

CAS# 4163-60-4 unlisted.

LD50/LC50: 

Not available.

Carcinogenicity:

CAS# 4163-60-4: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Mutagenicity: No information available.

Neurotoxicity: No information available.

Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.
Section 14 - Transport Information

<table>
<thead>
<tr>
<th></th>
<th>US DOT</th>
<th>Canada TDG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shipping Name:</strong></td>
<td>Not regulated as a hazardous material</td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Hazard Class:</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>UN Number:</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Packing Group:</strong></td>
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</table>

Section 15 - Regulatory Information

**US FEDERAL**

**TSCA**
CAS# 4163-60-4 is listed on the TSCA inventory.

**Health & Safety Reporting List**
None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules**
None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b**
None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule**
None of the chemicals in this material have a SNUR under TSCA.

**CERCLA Hazardous Substances and corresponding RQs**
None of the chemicals in this material have an RQ.

**SARA Section 302 Extremely Hazardous Substances**
None of the chemicals in this product have a TPQ.

**Section 313**
No chemicals are reportable under Section 313.

**Clean Air Act:**
This material does not contain any hazardous air pollutants.
This material does not contain any Class 1 Ozone depleters.
This material does not contain any Class 2 Ozone depleters.

**Clean Water Act:**
None of the chemicals in this product are listed as Hazardous Substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**
None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**
CAS# 4163-60-4 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

**California Prop 65**
California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations**

**European Labeling in Accordance with EC Directives**

**Hazard Symbols:**
Not available.

**Risk Phrases:**

**Safety Phrases:**
S 24/25 Avoid contact with skin and eyes.

**WGK (Water Danger/Protection)**
CAS# 4163-60-4: 1

**Canada - DSL/NDSL**
CAS# 4163-60-4 is listed on Canada's DSL List.

Canada - WHMIS
WHMIS: Not available.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 - Additional Information

MSDS Creation Date: 9/02/1997
Revision #3 Date: 10/03/2005

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 event shall Fisher 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 Fisher has been advised of the possibility of such damages.