

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

MSDS Name: Beryllium, Powder, -325 Mesh, 99+%

Catalog Numbers:

AC317870000, AC317870050

Synonyms:

Glucinium; Glucinum.

Company Identification (Europe): Acros Organics BVBA  
 Janssen Pharmaceuticacalaan 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 \*\*\*\*

CAS#	Chemical Name	%	EINECS#
7440-41-7	Beryllium	99+%	231-150-7

Hazard Symbols: XI T+

Risk Phrases: 25 26 36/37/38 43 49 48/23

## \*\*\*\* SECTION 3 - HAZARDS IDENTIFICATION \*\*\*\*

## EMERGENCY OVERVIEW

Toxic if swallowed. Very toxic by inhalation. Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact. May cause cancer by inhalation. Toxic : danger of serious damage to health by prolonged exposure through inhalation.

## Potential Health Effects

## Eye:

Causes eye irritation. May cause conjunctivitis and corneal inflammation.

## Skin:

Causes skin irritation. May cause contact dermatitis.

## Ingestion:

May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

## Inhalation:

Causes respiratory tract irritation. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count. If heated, dust or fume may cause respiratory tract irritation.

## Chronic:

Chronic exposure to beryllium may cause berylliosis, a hypersensitivity pulmonary reaction. Symptoms may include delayed cutaneous hypersensitivity, depressed helper/suppressor T cell ratios

## \*\*\*\* SECTION 4 - FIRST AID MEASURES \*\*\*\*

## Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

## Skin:

Get medical aid immediately. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.

## Ingestion:

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 immediately.

## Inhalation:

Get medical aid immediately. Remove from exposure to fresh air immediately. If breathing is difficult, give oxygen. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

## 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. Dust can be an explosion hazard when exposed to heat or flame.

## Extinguishing Media:

Do NOT use carbon dioxide. Do NOT use halogenated agents. Use approved class D extinguishing agents or smother with dry sand, clay, or sodium bicarbonate. DO NOT USE WATER!

## \*\*\*\* 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. Avoid generating dusty conditions. Remove all sources of ignition. Provide ventilation.

## \*\*\*\* SECTION 7 - HANDLING and STORAGE \*\*\*\*

## Handling:

Wash thoroughly after handling. Use only in a well-ventilated area. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

## Storage:

Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from organic halogens. Keep away from acids. Do not store near alkaline substances. Keep away from strong bases.

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

## Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

## 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 prevent skin exposure.

## Respirators:

Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

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

Physical State:	Flakes
Appearance:	gray-white
Odor:	odorless
pH:	Not available.
Vapor Pressure:	1.85 mm Hg
Vapor Density:	Not available.
Evaporation Rate:	Not available.
Viscosity:	Not available.
Boiling Point:	2970 deg C
Freezing/Melting Point:	1287 deg C
Autoignition Temperature:	Not applicable.
Flash Point:	Not applicable.
Explosion Limits, lower:	Not available.
Explosion Limits, upper:	Not available.
Decomposition Temperature:	
Solubility:	
Specific Gravity/Density:	1.85 @ 20C
Molecular Formula:	Be
Molecular Weight:	9.01

## \*\*\*\* SECTION 10 - STABILITY AND REACTIVITY \*\*\*\*

## Chemical Stability:

Stable at room temperature in closed containers under normal storage and handling conditions.

## Conditions to Avoid:

Incompatible materials, dust generation, excess heat, exposure to flame.

## Incompatibilities with Other Materials:

Oxidizing agents, phosphorus, lithium, caustics (e.g. ammonia, ammonium hydroxide, calcium hydroxide, potassium hydroxide, sodium hydroxide), carbontetrachloride, chlorinated hydrocarbons, Contact with acids causes evolution of flammable hydrogen gas..

## Hazardous Decomposition Products:

Not available.

Hazardous Polymerization: Has not been reported

## \*\*\*\* SECTION 11 - TOXICOLOGICAL INFORMATION \*\*\*\*

## RTECS#:

CAS# 7440-41-7: DS1750000

## LD50/LC50:

Not available.

## Carcinogenicity:

Beryllium -

ACGIH: A1- confirmed human carcinogen

California: carcinogen; initial date 10/1/87

NIOSH: occupational carcinogen

NTP: Suspect carcinogen

OSHA: Possible Select carcinogen

IARC: Group 1 carcinogen

## Epidemiology:

IARC Group 1: Proven human carcinogenic substance.

## Teratogenicity:

No information found.

## Reproductive Effects:

No information found.

## Neurotoxicity:

No information found.

## Mutagenicity:

No information found.

## Other Studies:

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 \*\*\*\*

## US DOT

Shipping Name: BERYLLIUM POWDER

Hazard Class: 6.1

UN Number: 1567

Packing Group: II

## Canadian TDG

No information available.

## \*\*\*\* SECTION 15 - REGULATORY INFORMATION \*\*\*\*

## US FEDERAL

## TSCA

CAS# 7440-41-7 is listed on the TSCA inventory.

This material does not contain any Class 2 Ozone depletors.

## Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

CAS# 7440-41-7 is listed as a Priority Pollutant under the Clean Water Act.

CAS# 7440-41-7 is listed as a Toxic Pollutant under the Clean Water Act.

## OSHA:

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

## STATE

Beryllium can be found on the following state right to know lists:  
California, New Jersey, Florida, Pennsylvania, Minnesota,

Massachusetts.

The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:

WARNING: This product contains Beryllium, a chemical known to the state of California to cause cancer.

California No Significant Risk Level:

CAS# 7440-41-7: no significant risk level = 0.1 ug/day

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XI T+

Risk Phrases:

R 25 Toxic if swallowed.

R 26 Very toxic by inhalation.

R 36/37/38 Irritating to eyes, respiratory system and skin.

R 43 May cause sensitization by skin contact.

R 49 May cause cancer by inhalation.

R 48/23 Toxic : danger of serious damage to health by prolonged exposure through inhalation.

Safety Phrases:

S 53 Avoid exposure - obtain special instructions before use.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 7440-41-7: No information available.

United Kingdom Occupational Exposure Limits

Canada

CAS# 7440-41-7 is listed on Canada's DSL List.

CAS# 7440-41-7 is listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 7440-41-7: OEL-ARAB Republic of Egypt:TWA 0.002 mg/m3

OEL-AUSTRALIA:TWA 0.002 mg/m3;Carcinogen

OEL-BELGIUM:TWA 0.002 mg/m3;Carcinogen

OEL-CZECHOSLOVAKIA:TWA 0.001 mg/m3;STEL 0.002 mg/m3

OEL-DENMARK:TWA 0.001 mg/m3;Carcinogen

OEL-FINLAND:TWA 0.002 mg/m3;STEL 0.006 mg/m3;Carcinogen

OEL-FRANCE:TWA 0.002 mg/m3;Carcinogen

OEL-GERMANY;Carcinogen

OEL-HUNGARY:STEL 0.001 mg/m3;Carcinogen

OEL-INDIA:TWA 0.002 mg/m3;Carcinogen

OEL-JAPAN:TWA 0.002 mg/m3;Carcinogen

OEL-THE NETHERLANDS:TWA 0.002 mg/m3

OEL-THE PHILIPPINES:TWA 0.002 mg/m3

OEL-POLAND:TWA 0.001 mg/m3

OEL-RUSSIA:STEL 0.001 mg/m3;Carcinogen

OEL-SWEDEN:TWA 0.002 mg/m3;Carcinogen

OEL-SWITZERLAND:TWA 0.002 mg/m3;Carcinogen

OEL-THAILAND:TWA 0.002 mg/m3;STEL 0.005 mg/m3

OEL-TURKEY:TWA 0.002 mg/m3

OEL-UNITED KINGDOM:TWA 0.002 mg/m3

OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

\*\*\*\* SECTION 16 - ADDITIONAL INFORMATION \*\*\*\*

MSDS Creation Date: 1/21/1998 Revision #3 Date: 8/02/2000

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.

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