

# Material Safety Data Sheet

## Benzeneseleninic acid, 99%

ACC# 81079

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Benzeneseleninic acid, 99%

**Catalog Numbers:** AC199700000, AC199700050

**Synonyms:** Phenylseleninic acid; Seleninobenzoic acid

**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

CAS#	Chemical Name	Percent	EINECS/ELINCS
6996-92-5	Benzeneseleninic acid	99	230-271-2

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: light yellow powder.

**Warning!** Harmful if inhaled or swallowed. May cause eye and skin irritation. May cause respiratory and digestive tract irritation. The toxicological properties of this material have not been fully investigated.

**Target Organs:** Liver, spleen.

#### Potential Health Effects

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation.

**Ingestion:** Harmful if swallowed. May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated.

**Inhalation:** Harmful if inhaled. May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

**Chronic:** Chronic exposure to selenium may cause pallor, garlic breath, metallic taste, anemia, liver and spleen damage. Chronic selenium poisoning is characterized by loss of hair and nails, skin lesions, and abnormalities of the nervous system.

### 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.

**Skin:** Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

**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. Wash mouth out with water.

**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.

**Notes to Physician:** Treat symptomatically and supportively.

### 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, irritating and highly toxic gases may be generated by thermal decomposition or combustion. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.

**Extinguishing Media:** Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

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

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 0

### 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. Avoid generating dusty conditions. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Do not breathe dust, vapor, mist, or gas. Keep container tightly closed. Do not ingest or inhale.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

## 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.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Benzeneseleninic acid	0.2 mg/m3 TWA (as Se) (listed under Selenium compounds).	0.2 mg/m3 TWA (as Se, except Selenium hexafluoride) (listed under Selenium compounds).	0.2 mg/m3 TWA (as Se) (listed under Selenium compounds).

**OSHA Vacated PELs:** Benzeneseleninic acid: 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 prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Powder

**Appearance:** white - light yellow

**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:** 121 - 124 deg C

**Decomposition Temperature:** Not available.

**Solubility:** Slightly soluble.

**Specific Gravity/Density:** Not available.

**Molecular Formula:** C<sub>6</sub>H<sub>6</sub>O<sub>2</sub>Se

**Molecular Weight:** 189.07

## Section 10 - Stability and Reactivity

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

**Conditions to Avoid:** Incompatible materials, dust generation, excess heat.

**Incompatibilities with Other Materials:** Metals, oxidizing materials, bases, hydrazine derivatives.

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

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

## Section 11 - Toxicological Information

### RTECS#:

**CAS#** 6996-92-5 unlisted.

### LD50/LC50:

Not available.

### Carcinogenicity:

**CAS#** 6996-92-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information found

**Teratogenicity:** No information found

**Reproductive Effects:** No information found

**Mutagenicity:** No information found

**Neurotoxicity:** No information found

**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** Bacteria: Phytobacterium phosphoreum: EC50 = 17.2-30.0 mg/L; 5,15,30 min; Microtox test at 15°C

## 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

	US DOT	Canada TDG
<b>Shipping Name:</b>	DOT regulated - small quantity provisions apply (see 49CFR173.4)	No information available.
<b>Hazard Class:</b>		
<b>UN Number:</b>		
<b>Packing Group:</b>		

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 6996-92-5 is not listed on the TSCA inventory. It is for research and development use only.

#### 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

This material contains Benzeneseleninic acid (listed as Selenium compounds), 99%, (CAS# 6996-92-5) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

#### Clean Air Act:

CAS# 6996-92-5 (listed as Selenium compounds) is listed as a hazardous air pollutant (HAP).

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. CAS# 6996-92-5 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

CAS# 6996-92-5 can be found on the following state right to know lists: California, (listed as Selenium compounds), Pennsylvania, (listed as Selenium compounds).

#### 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:

T

##### Risk Phrases:

R 23/25 Toxic by inhalation and if swallowed.

R 33 Danger of cumulative effects.

##### Safety Phrases:

S 20/21 When using do not eat, drink or smoke.

S 37 Wear suitable gloves.

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

S 28A After contact with skin, wash immediately with plenty of water

#### WGK (Water Danger/Protection)

CAS# 6996-92-5: No information available.

#### Canada - DSL/NDSL

None of the chemicals in this product are listed on the DSL or NDSL list.

**Canada - WHMIS**

This product has a WHMIS classification of D2B, D1B.

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**

CAS# 6996-92-5 (listed as Selenium compounds) is listed on the Canadian Ingredient Disclosure List.

<b>Section 16 - Additional Information</b>
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**MSDS Creation Date:** 6/10/1999

**Revision #3 Date:** 10/03/2005

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