

# Material Safety Data Sheet

Revision date: 25-Apr-2006

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY INFORMATION

**Product name:** SELENIC ACID, 40% SOLUTION

**Supplier:**

ProChem, Inc.  
826 Roosevelt Rd.  
Rockford IL 61109  
(800) 795-8788

**Emergency telephone number:** CHEMTREC: 1-800-424-9300 (1-703-527-3887)

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA Exposure Limits:
SELENIC ACID, 40% SOLUTION	7783-08-6	90 - 100%	0.2 mg/m <sup>3</sup> TWA	0.2 mg/m <sup>3</sup> TWA

## 3. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** Toxic: danger of very serious irreversible effects if swallowed. May also have serious irreversible effects through skin contact or inhalation.

**Category of Danger:**

Toxic, Carc. cat. 3

**Principle routes of exposure:** Skin

**Inhalation:** Harmful: possible risk of irreversible effects through inhalation.

**Ingestion:** Toxic: danger of very serious irreversible effects if swallowed.

**Skin contact:** Harmful: danger of serious damage to health by prolonged skin contact.

**Eye contact:** Risk of serious damage to eyes

**Statements of hazard** Toxic if swallowed

**Statement of Spill or Leak - ANSI Label** Eliminate all ignition sources. Absorb and/or contain spill with inert materials (e.g., sand, vermiculite). Then place in appropriate container. For large spills, use water spray to disperse vapors, flush spill area. Prevent runoff from entering waterways or sewers.

**Precautions - ANSI Label** Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Do not breathe vapors or spray mist

## 4. FIRST AID MEASURES

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

**Inhalation:** Move to fresh air. Call a physician immediately.

**Skin contact:** Rinse immediately with plenty of water and seek medical advice

**Ingestion:** Drink 1 or 2 glasses of water. Induce vomiting if person is conscious.

**Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
**Protection of first-aiders:** No information available  
**Medical conditions aggravated by exposure:** None known

## 5. FIRE FIGHTING MEASURES

<b>Suitable extinguishing media:</b>	Use dry chemical, CO <sub>2</sub> , water spray or "alcohol" foam
<b>Specific hazards:</b>	Burning produces irritant fumes.
<b>Unusual hazards:</b>	None known
<b>Special protective equipment for firefighters:</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear
<b>Specific methods:</b>	Water mist may be used to cool closed containers.
<b>Flash point:</b>	Not determined
<b>Autoignition temperature:</b>	Not determined
<b>NFPA rating:</b>	
NFPA Health:	4
NFPA Flammability:	0
NFPA Reactivity:	0

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions:</b>	Use personal protective equipment.
<b>Environmental precautions:</b>	Prevent product from entering drains.
<b>Methods for cleaning up:</b>	Sweep up and shovel into suitable containers for disposal.

## 7. HANDLING AND STORAGE

**Storage:**  
ROOM TEMPERATURE

<b>Handling:</b>	Use only in area provided with appropriate exhaust ventilation.
<b>Safe handling advice:</b>	Wear personal protective equipment. Remove and wash contaminated clothing before reuse.
<b>Technical measures/storage conditions:</b>	Keep container tightly closed in a dry and well-ventilated place.
<b>Incompatible products:</b>	Oxidising and spontaneously flammable products

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering measures:** Ensure adequate ventilation, especially in confined areas.  
**PERSONAL PROTECTIVE EQUIPMENT**  
**Respiratory protection:** Breathing apparatus only if aerosol or dust is formed.  
**Hand protection:** Pvc or other plastic material gloves  
**Skin and body protection:** Impervious clothing Long sleeved clothing  
**Eye protection:** Safety glasses with side-shields  
**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Solid
<b>Formula:</b>	Se

Product name: SELENIC ACID, 40% SOLUTION

<b>Molecular weight:</b>	78.96
<b>Melting point/range:</b>	217 deg. C
<b>Boiling point/range:</b>	684 +/- 1 deg. C
<b>Density:</b>	No data available
<b>Vapor pressure:</b>	> 0.001 mm Hg at 20 °C
<b>Evaporation rate:</b>	No data available
<b>Vapor density:</b>	No data available
<b>Solubility (in water):</b>	No data available
<b>Flash point:</b>	Not determined
<b>Autoignition temperature:</b>	Not determined

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under recommended storage conditions.
<b>Polymerization:</b>	None under normal processing.
<b>Hazardous decomposition products:</b>	Selenium (Se)
<b>Materials to avoid:</b>	Acids Strong oxidising agents
<b>Conditions to avoid:</b>	Exposure to air or moisture over prolonged periods.

## 11. TOXICOLOGICAL INFORMATION

### Product Information

#### Acute toxicity

##### Components

SELENIC ACID, 40% SOLUTION

#### RTECS Number:

VS6575000

#### Selected LD50s and LC50s

Oral LD50 Rat : 6700 mg/kg

#### Chronic toxicity:

Chronic exposure may cause nausea and vomiting, higher exposure causes unconsciousness.

#### Local effects:

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

#### Specific effects:

May include moderate to severe erythema (redness) and moderate edema (raised skin), nausea, vomiting, headache.

#### Primary irritation:

No data is available on the product itself.

#### Carcinogenic effects:

Possible carcinogen

#### Mutagenic effects:

No data is available on the product itself.

#### Reproductive toxicity:

No data is available on the product itself.

##### Components

SELENIC ACID, 40% SOLUTION

#### NIOSH - Health Effects

Eye, upper respiratory, and skin irritation; damage to the liver, kidney, spleen, and heart in animals

#### NIOSH - Target Organs

respiratory system, eyes, skin, spleen, liver, kidneys, blood

## 12. ECOLOGICAL INFORMATION

#### Mobility:

No data available

#### Bioaccumulation:

No data available

#### Ecotoxicity effects:

No data available

#### Aquatic toxicity:

May cause long-term adverse effects in the aquatic environment.

##### Components

SELENIC ACID, 40% SOLUTION

#### U.S. DOT - Appendix B -

Marine Pollutan

Not Listed

#### U.S. DOT - Appendix B -

Severe Marine Pollutants

Not Listed

#### United Kingdom - The Red

List:

Not Listed

<b>Components</b>	<b>Germany VCI (WGK)</b>	<b>World Health Organization (WHO) - Drinking Water</b>	<b>Ecotoxicity - Fish Species Data</b>
SELENIC ACID, 40% SOLUTION	2	0.01 mg/L	Not Listed
<b>Components</b>	<b>Ecotoxicity - Freshwater Algae Data</b>	<b>Ecotoxicity - Microtox Data</b>	<b>Ecotoxicity - Water Flea Data</b>
SELENIC ACID, 40% SOLUTION	Not Listed	Not Listed	Not Listed
<b>Components</b>	<b>EPA - ATSDR Priority List</b>	<b>EPA - HPV Challenge Program Chemical List</b>	<b>California - Priority Toxic Pollutants</b>
SELENIC ACID, 40% SOLUTION	Rank (of 275): 143	Not Listed	Maximum concentration = reserved; continuous concentration = 5.0 ug/L
<b>Components</b>	<b>California - Priority Toxic Pollutants</b>	<b>California - Priority Toxic Pollutants</b>	
SELENIC ACID, 40% SOLUTION	No human health criteria is being promulgated for these contaminants. However, permit authorities should address these contaminants during the permit process.	Maximum concentration = 290 ug/L; continuous concentration = 71 ug/L	

### 13. DISPOSAL CONSIDERATIONS

**Waste from residues / unused products:**

Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Residue from fires extinguished with this material may be hazardous.

**Contaminated packaging:**

Do not re-use empty containers

### 14. TRANSPORT INFORMATION

**UN/Id No:** 1905

**DOT:**

**Proper shipping name:** Selenic acid  
**IATA Hazard Label(s):** Corrosive  
**Hazard Class:** 8 - Corrosive materials  
**Packing group:** I

**Emergency Response Guide Number (ERG):** 154

**Components** **U.S. DOT - Appendix A Table 1 - Reportable Quantities**  
 SELENIC ACID, 40% SOLUTION RQ = 100 pounds (45.4 kg); The RQ for these hazardous substances is limited to those pieces of the metal having a diameter smaller than 100 micrometers (0.004 inches).

**TDG (Canada):**  
**WHMIS hazard class:**

D2b toxic materials



**IMDG/IMO**

Proper shipping name:

Selenic acid

IMDG - Hazard Classifications  
 IMDG - Potential Marine Pollutants  
 IMDG - Regulated Substances

IMDG class or division = 8  
 UN3283  
 UN1905

Components

U.S. DOT - Appendix B - Marine Pollutan

U.S. DOT - Appendix B - Severe Marine Pollutants

SELENIC ACID, 40% SOLUTION

Not Listed

Not Listed

**IMO-labels:****15. REGULATORY INFORMATION****International Inventories****Components**

SELENIC ACID, 40% SOLUTION

Inventory - United States TSCA - Sect. 8(b)

Present

Canada DSL Inventory List -

Present

Canada NDSL Inventory List -

H2O4Se

Australia (AICS):

Present

Inventory - China:

Present

EU EINECS List -

231-957-4; Se

Inventory - Japan:

1-1081

Korean KECL:

KE-30924

Philippines PICCS:

Present

**U.S. regulations:****Components**

SELENIC ACID, 40% SOLUTION

California Proposition 65

Not Listed

Massachusetts Right to Know List:

[present]

New Jersey Right to Know List:

sn 1648

Pennsylvania Right to Know List:

environmental hazard (any compound of this substance is also an environmental hazard)

**Components**

SELENIC ACID, 40% SOLUTION

Florida substance List:

[present]

Rhode Island Right to Know List:

Toxic

Illinois - Toxic Air Contaminants

[present]

Connecticut - Hazardous Air Pollutants

4 ug/m³ HLV (as Se)

**Components**

SELENIC ACID, 40% SOLUTION

SARA 313 Emission reporting/Toxic Release of Chemicals

form R reporting required for 1.0% de minimis concentration

CERCLA/SARA - Section 302 Extremely Haz

Not Listed

NTP:

None

IARC:

None

**SARA 313 Notification:**

The above is your notification as to the SARA 313 listing for this product(s) pursuant to Section 313 of Title III of the Superfund Ammendments and Reauthorization Act of 1986 and 40 CFR Part 372.

If you are unsure if you are subject to the reporting requirements of Section 313, or need more information, please call the EPA Emergency Planning and Community Right-To-Know Information Hotline: (800) 535-0202 or (202) 479-2499 (in Washington, DC or Alaska).

**State Notification:**

The above information is your notice as to the Right-to-Know listings of the stated product(s). Individual states will list chemicals for a variety of reasons including, but not limited to, the compounds toxicity; carcinogenic, tumorigenic and/or reproductive hazards; and the compounds environmental impact if accidentally released.

**16. OTHER INFORMATION**

**Prepared by:** Health & Safety

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**End of Safety Data Sheet**