

# Material Safety Data Sheet

## Semicarbazide hydrochloride

ACC# 96776

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Semicarbazide hydrochloride**Catalog Numbers:** AC132640000, AC132640050, AC132641000, AC132645000, AC264610000, AC264610050, AC264610050, AC264611000, AC264612500, AC264615000**Synonyms:** Amidourea Hydrochloride; Carbamylhydrazine Hydrochloride; Hydrazinecarboxamide Monohydrochloride.**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
563-41-7	Semicarbazide hydrochloride	>98	209-247-0

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: white to light cream crystalline powder.

**Caution!** Causes eye and skin irritation. May cause respiratory tract irritation. Cancer suspect agent. May cause central nervous system depression. The toxicological properties of this material have not been fully investigated.**Target Organs:** Central nervous system, eyes, skin.**Potential Health Effects****Eye:** May cause eye irritation.**Skin:** May cause skin irritation. May be harmful if absorbed through the skin.**Ingestion:** May cause irritation of the digestive tract. May be harmful if swallowed.**Inhalation:** May cause respiratory tract irritation. Inhalation at high concentrations may cause CNS depression and asphyxiation.**Chronic:** May cause adverse nervous system effects including muscle tremors and incoordination. Effects may be delayed. Cancer suspect agent.

### Section 4 - First Aid Measures

**Eyes:** Get medical aid. Immediately flush eyes with plenty of water for at least 15 minutes.

**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:** Never give anything by mouth to an unconscious person. Get medical aid. 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. 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.

**Extinguishing Media:** 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: 1; 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. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

**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
Semicarbazide hydrochloride	none listed	none listed	none listed

**OSHA Vacated PELs:** Semicarbazide hydrochloride: 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:** 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:** Crystalline powder

**Appearance:** white to light cream

**Odor:** None reported.

**pH:** 1.5 (10% aq. solution)

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** Not available.

**Freezing/Melting Point:** 175 - 177 deg C

**Decomposition Temperature:** Not available.

**Solubility:** 100 g/l (15 c)

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

**Molecular Formula:** CH<sub>5</sub>N<sub>3</sub>O.HCl

**Molecular Weight:** 111.53

## 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:** Oxidizing agents.

**Hazardous Decomposition Products:** Hydrogen chloride, nitrogen oxides, carbon monoxide, carbon dioxide, nitrogen gas.

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

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 563-41-7: VT3500000

**LD50/LC50:**

CAS# 563-41-7:

Oral, mouse: LD50 = 225 mg/kg;

**Carcinogenicity:**

CAS# 563-41-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** IARC Group 3: Limited or insufficient evidence for carcinogenicity in both animals and humans.**Teratogenicity:** No information found**Reproductive Effects:** Adverse reproductive effects have occurred in experimental animals.**Mutagenicity:** Mutagenic effects have occurred in experimental animals.**Neurotoxicity:** No information found**Other Studies:**

<b>Section 12 - Ecological Information</b>
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No information available.

<b>Section 13 - Disposal Considerations</b>
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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.

<b>Section 14 - Transport Information</b>
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	US DOT	Canada TDG
<b>Shipping Name:</b>	TOXIC SOLIDS, ORGANIC, N.O.S. (Semicarbazide hydrochloride)	TOXIC SOLIDS, ORGANIC, N.O.S. (Semicarbazide hydrochloride)
<b>Hazard Class:</b>	6.1	6.1
<b>UN Number:</b>	UN2811	UN2811
<b>Packing Group:</b>	III	III

<b>Section 15 - Regulatory Information</b>
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**US FEDERAL****TSCA**

CAS# 563-41-7 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**

CAS# 563-41-7: 1000 lb lower threshold TPQ; 10000 lb upper threshold T PQ

### **SARA Codes**

CAS # 563-41-7: immediate.

**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# 563-41-7 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Massachusetts.

### **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:**

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#### **Risk Phrases:**

R 25 Toxic if swallowed.

R 36/38 Irritating to eyes and skin.

R 40 Limited evidence of a carcinogenic effect.

#### **Safety Phrases:**

S 22 Do not breathe dust.

S 24/25 Avoid contact with skin and eyes.

### **WGK (Water Danger/Protection)**

CAS# 563-41-7: 2

### **Canada - DSL/NDSL**

CAS# 563-41-7 is listed on Canada's DSL List.

### **Canada - WHMIS**

This product has a WHMIS classification of D1B, D2B, D2A.

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:** 12/12/1997**Revision #6 Date:** 11/14/2006

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