Semicarbazide hydrochloride
MSDS# 96776

Section 1 - Chemical Product and Company Identification

MSDS Name: Semicarbazide hydrochloride
Catalog Numbers:
Synonyms:
- Amidourea Hydrochloride; Carbamylhydrazine Hydrochloride; Hydrazinecarboxamide Monohydrochloride.
Company Identification: Fisher Scientific UK
Bishop Meadow Road, Loughborough
Leics. LE11 5RG
For information in Europe, call: (01509) 231166
Emergency Number, Europe: 01509 231166

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Section 2 - Composition, Information on Ingredients

CAS#: 563-41-7
Chemical Name: Semicarbazide hydrochloride
%: >98
EINECS#: 209-247-0

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Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Toxic if swallowed. Irritating to eyes and skin. Limited evidence of a carcinogenic effect. Cancer suspect agent. The toxicological properties of this material have not been fully investigated.
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.

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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:

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.

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
CAS# 563-41-7:

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
Color: white to light cream
Odor: None reported.
pH: 1.5 (10% aq. solution)
Vapor Pressure: Not available
Viscosity: Not available
Boiling Point: Not available
Freezing/Melting Point: 175 - 177 deg C
Autoignition Temperature: Not applicable
Flash Point: Not applicable.
Explosion Limits: Lower: Not available
Explosion Limits: Upper: Not available
Decomposition Temperature: Not available
Solubility in water: 100 g/l (15 c)
Specific Gravity/Density: 
Molecular Formula: CH5N3O.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 Not available
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: RTECS: CAS# 563-41-7: Oral, mouse: LD50 = 225 mg/kg;
Carcinogenicity: Semicarbazide hydrochloride - IARC: Group 3 (not classifiable)
Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

IATA
Shipping Name: TOXIC SOLIDS, ORGANIC, N.O.S.
Hazard Class: 6.1
UN Number: 2811
Packing Group: III
IMO
Shipping Name: TOXIC SOLIDS, ORGANIC, N.O.S.
Hazard Class: 6.1
UN Number: 2811
Packing Group: III

RID/ADR
Shipping Name: TOXIC SOLIDS, ORGANIC, N.O.S.
Hazard Class: 6.1
UN Number: 2811
Packing Group: III

Section 15 - Regulatory Information

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: T
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
CAS# 563-41-7 is listed on Canada's DSL List

US Federal
TSCA
CAS# 563-41-7 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date:
12/12/1997
Revision #6 Date
11/14/2006
Revisions were made in Sections:
2, 3, 4, 5, 9, 10, 14, 15

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