



MATERIAL SAFETY DATA SHEET
Hydrazine Sulfate

Section 1 - Chemical Product and Company Identification

MSDS Name: Hydrazine Sulfate
Catalog Numbers: H/0650/53, H/0650/71, H/0700/48, H/0700/50, H/0700/71
Synonyms: Diamine Sulfate; Hydrazine Monosulfate; Hydrazinium Sulfate.
Company Identification: Fisher Scientific UK
 Bishop Meadow Road, Loughborough
 Leics. LE11 5RG
For information in Europe, call: (01509) 231166
Emergency Number, Europe: 01509 231166

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
10034-93-2	HYDRAZINE SULFATE	>99	233-110-4

Hazard Symbols: T N



Risk Phrases: 45 23/24/25 43 50/53

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Toxic by inhalation, in contact with skin and if swallowed. May cause sensitization by skin contact. May cause cancer. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Corrosive. Carcinogen.

Potential Health Effects

Eye: Contact with eyes may cause severe irritation, and possible eye burns. May cause eye injury.
Skin: May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May cause severe skin irritation with possible burns, especially if skin is wet or moist.
Ingestion: May cause liver and kidney damage. May cause severe digestive tract irritation with abdominal pain, nausea, vomiting and diarrhea. May cause corrosion and permanent tissue destruction of the esophagus and digestive tract. Exposure may cause anemia and other blood abnormalities. May be harmful if swallowed.
Inhalation: Irritation may lead to chemical pneumonitis and pulmonary edema. May cause liver and kidney damage. May cause severe irritation of the upper respiratory tract with pain, burns, and inflammation. May cause effects similar to those described for ingestion.
Chronic: Prolonged or repeated skin contact may cause sensitization dermatitis and possible destruction and/or ulceration. May cause liver and kidney damage. May cause cancer according to animal studies. May cause digestive tract disturbances.

Section 4 - First Aid Measures

- Eyes:** Immediately 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. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.
- Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

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. Dusts at sufficient concentrations can form explosive mixtures with air. Combustion generates toxic fumes.
- Extinguishing Media:** For small fires, use water spray, dry chemical, carbon dioxide or chemical foam.

Section 6 - Accidental Release Measures

- General Information:** Use proper personal protective equipment as indicated in Section 8.
- Spills/Leaks:** Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

- Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Do not get on skin and clothing. 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 process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

Exposure Limits

CAS# 10034-93-2:

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: Solid

Color: white
Odor: none reported
pH: 1.3 (0.2M solution)
Vapor Pressure: Negligible.
Viscosity: Not available
Boiling Point: Not available
Freezing/Melting Point: 489 deg F (253.89°C)
Autoignition Temperature: Not applicable
Flash Point: Not applicable.
Explosion Limits: Lower: Not available
Explosion Limits: Upper: Not available
Decomposition Temperature:
Solubility in water: Soluble in water.
Specific Gravity/Density: 1.4 (water=1)
Molecular Formula: H4N2.H2SO4
Molecular Weight: 130.12

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, dust generation.
Incompatibilities with Other Materials Not available
Hazardous Decomposition Products Nitrogen oxides, carbon monoxide, oxides of sulfur, carbon dioxide.
Hazardous Polymerization Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 10034-93-2: MV9625000
LD50/LC50: RTECS:
CAS# 10034-93-2: Draize test, rabbit, eye: 20 mg/24H Moderate;
 Oral, mouse: LD50 = 434 mg/kg;
 Oral, rat: LD50 = 601 mg/kg;
 .
Carcinogenicity: HYDRAZINE SULFATE - California: carcinogen, initial date 1/1/88 NTP: Suspect carcinogen
Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: No information available.

Section 13 - Disposal Considerations

Products considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local authority or advice. Empty containers must be decontaminated before returning for recycling.

Section 14 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	TOXIC SOLID, INORGANIC, NOS (Hydrazinium sulfate)	TOXIC SOLID, INORGANIC, NOS (Hydrazinium sulfate)	TOXIC SOLID, INORGANIC, NOS (Hydrazinium sulfate)

Hazard Class:	6.1	6.1	6.1
UN Number:	3288	3288	3288
Packing Group:	III	III	III

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T N

Risk Phrases:

- R 45 May cause cancer.
- R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
- R 43 May cause sensitization by skin contact.
- R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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).
- S 60 This material and its container must be disposed of as hazardous waste.
- S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 10034-93-2: Not available

Canada

CAS# 10034-93-2 is listed on Canada's DSL List

US Federal

TSCA

CAS# 10034-93-2 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 12/12/1997

Revision #6 Date 5/05/2005

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 event 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.
