



MATERIAL SAFETY DATA SHEET  
Sodium Metal

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Sodium Metal  
**Catalog Numbers:** S/1840, S/1920/46, S/1920/48, S/1920/90, S/1970  
**Synonyms:** Natrium.  
**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#
7440-23-5	Sodium	100	231-132-9

**Hazard Symbols:** F C



**Risk Phrases:** 14/15 34

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

*Reacts violently with water liberating extremely flammable gases. Causes burns. Corrosive. Water-reactive.*

#### Potential Health Effects

**Eye:** May cause irreversible eye injury. Contact with eyes may cause severe irritation, and possible eye burns.  
**Skin:** Causes skin burns. May cause deep, penetrating ulcers of the skin.  
**Ingestion:** Causes gastrointestinal tract burns.  
**Inhalation:** May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema.  
**Chronic:** Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion.

### 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:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.  
**Ingestion:** Do not induce vomiting. 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.

**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. Reacts violently with water giving off flammable gas which may explode. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Flammable solid. May react violently or explosively on contact with water. May be ignited by heat, sparks, and flame. May re-ignite after fire is extinguished.

**Extinguishing Media:** DO NOT USE WATER! Do NOT use CO<sub>2</sub> or halogenated extinguishing agents. Smother with dry sand, dry clay, dry ground limestone (CaCO<sub>3</sub>), or use approved Class D extinguishers.

### 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. Avoid generating dusty conditions. Remove all sources of ignition. Provide ventilation. Do not expose spill to water.

### 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 in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Do not ingest or inhale. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

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

### Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:**

Use adequate ventilation to keep airborne concentrations low.

**Exposure Limits**

CAS# 7440-23-5:

**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:** light silver

**Odor:** odorless

**pH:** Not applicable  
**Vapor Pressure:** 1 mm Hg @ 440 deg C  
**Viscosity:** 0.680cp @ 100C  
**Boiling Point:** 1621 deg F ( 882.78°C)  
**Freezing/Melting Point:** 208 deg F ( 97.78°C)  
**Autoignition Temperature:** 250 deg F ( 121.11 deg C)  
**Flash Point:** Not applicable.  
**Explosion Limits: Lower:** Not available  
**Explosion Limits: Upper:** Not available  
**Decomposition Temperature:** Not available  
**Solubility in water:** Reacts violently with water  
**Specific Gravity/Density:** 0.9684 @ 20 C  
**Molecular Formula:** Na  
**Molecular Weight:** 22.99

### Section 10 - Stability and Reactivity

**Chemical Stability:** Reacts violently with water. Reacts violently with a broad range of materials.  
**Conditions to Avoid:** Dust generation, exposure to moist air or water.  
**Incompatibilities with Other Materials:** Water, strong oxidizing agents, strong acids, halogens, chloroform, sulfur dioxide.  
**Hazardous Decomposition Products:** Irritating and toxic fumes and gases, sodium oxide.  
**Hazardous Polymerization:** Has not been reported.

### Section 11 - Toxicological Information

**RTECS#:** CAS# 7440-23-5: VY0686000  
**LD50/LC50:** RTECS: Not available.  
**Carcinogenicity:** Sodium - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.  
**Other:** See actual entry in RTECS for complete information.

### Section 12 - Ecological Information

Not 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

	<b>IATA</b>	<b>IMO</b>	<b>RID/ADR</b>
<b>Shipping Name:</b>	SODIUM	SODIUM	SODIUM
<b>Hazard Class:</b>	4.3	4.3	4.3
<b>UN Number:</b>	1428	1428	1428
<b>Packing Group:</b>	I	I	I

USA RQ: CAS# 7440-23-5: 10 lb final RQ; 4.54 kg final RQ

### Section 15 - Regulatory Information

#### European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: F C

Risk Phrases:

R 14/15 Reacts violently with water liberating extremely flammable gases.

R 34 Causes burns.

Safety Phrases:

S 5 Keep contents under ... (appropriate liquid to be specified by the manufacturer).

S 8 Keep container dry.

S 43H In case of fire, use dry chemical, soda ash, lime or sand. (Do not use water or foam).

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

WGK (Water Danger/Protection)

CAS# 7440-23-5: 2

Canada

CAS# 7440-23-5 is listed on Canada's DSL List

**US Federal**

TSCA

CAS# 7440-23-5 is listed on the TSCA Inventory.

**Section 16 - Other Information**

**MSDS Creation Date:** 10/13/1998

**Revision #4 Date** 10/03/2005

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