



MATERIAL SAFETY DATA SHEET

Lead, 1000 ppm, standard metal solution in approx. M nitric acid

Section 1 - Chemical Product and Company Identification

MSDS Name: Lead, 1000 ppm, standard metal solution in approx. M nitric acid
Catalog Numbers: J/8035/05, J/8035/08, J/8276/08
Synonyms: None.
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#	Hazard Symbols:	Risk Phrases:
7439-92-1	Lead metal	0.1	231-100-4	T N	61 20/22 33 50/53 62
7697-37-2	Nitric acid	6.3	231-714-2	O C	35 8
7732-18-5	Water	93.6	231-791-2		

Text for R-phrases: see Section 16

Hazard Symbols: C



Risk Phrases: 34

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Causes burns.

Potential Health Effects

Eye: Causes severe eye burns. May cause irreversible eye injury.
Skin: Causes skin burns. May cause deep, penetrating ulcers of the skin.
Ingestion: May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns. May cause perforation of the digestive tract.
Inhalation: Harmful if inhaled. May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema.
Chronic: Repeated inhalation may cause chronic bronchitis. Repeated exposure may cause erosion of teeth. May cause liver and kidney damage. May cause anemia and other blood cell abnormalities. May cause digestive tract and cardiac disturbances. Repeated exposure may cause central nervous system damage. Chronic ingestion may cause neurological symptoms. Chronic exposure to lead may result in plumbism which is characterized by lead line in gum, headache, muscle weakness, mental changes.

Section 4 - First Aid Measures

- Eyes:** Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).
- Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Destroy contaminated 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 breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

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. Use extinguishing media appropriate to the surrounding fire. Substance is noncombustible.
- Extinguishing Media:** Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. Use water fog, dry chemical, carbon dioxide, or regular foam.

Section 6 - Accidental Release Measures

- General Information:** Use proper personal protective equipment as indicated in Section 8.
- Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Flush spill area with water. Provide ventilation.

Section 7 - Handling and Storage

- Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Do not get on skin or in eyes. Do not ingest or inhale. Wash clothing before reuse.
- Storage:** Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Corrosives area.

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 general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

CAS# 7439-92-1:

- United Kingdom, WEL - TWA: 0.15 mg/m³ TWA United Kingdom, WEL - STEL: 0.45 mg/m³ STEL
- United States OSHA: 50 æg/m³ TWA; 50 æg/m³ TWA (as Pb); 30 æg/m³ Action Level (as Pb, Poison - see 29 CFR 1910.102 5)
- France - VME: 0.1 mg/m³ VME
- Japan: 0.1 mg/m³ OEL
- Malaysia: 0.05 mg/m³ TWA
- Netherlands: 0.15 mg/m³ MAC
- Russia: 0.05 mg/m³ TWA (aerosol)
- Spain: 0.15 mg/m³ VLA-ED

CAS# 7697-37-2:

United Kingdom, WEL - TWA: 2 ppm TWA; 5.2 mg/m³ TWA United Kingdom, WEL - STEL: 1 ppm STEL; 2.6 mg/m³ STEL

United States OSHA: 2 ppm TWA; 5 mg/m³ TWA

Belgium - STEL: 1 ppm STEL; 2.6 mg/m³ STEL

France - VME: 2 ppm VME; 5 mg/m³ VME France - VLE: 4 ppm VLCT; 10 mg/m³ VLCT

Germany: 2 ppm TWA (exposure factor 1); 5.2 mg/m³ TWA (exposure factor 1)

Japan: 2 ppm OEL; 5.2 mg/m³ OEL

Malaysia: 2 ppm TWA; 5.2 mg/m³ TWA

Netherlands: 0.5 ppm STEL; 1.3 mg/m³ STEL

Spain: 2 ppm VLA-ED; 5.2 mg/m³ VLA-ED Spain: 1 ppm VLA-EC; 2.6 mg/m³ VLA-EC

CAS# 7732-18-5:

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate 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: Liquid

Color: clear, colorless

Odor: odorless

pH: Acidic

Vapor Pressure: Not available

Viscosity: Not available

Boiling Point: 100 deg C (212.00°F)

Freezing/Melting Point: 0 deg C (32.00°F)

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: Soluble in water.

Specific Gravity/Density: >1.0

Molecular Formula: Mixture

Molecular Weight: Not available

Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: Confined spaces.

Incompatibilities with Other Materials Not available

Hazardous Decomposition Products

Nitrogen oxides.

Hazardous Polymerization

Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 7439-92-1: OF7525000
 CAS# 7697-37-2: QU5775000 QU5900000
 CAS# 7732-18-5: ZC0110000

LD50/LC50: RTECS: Not available. RTECS:
CAS# 7697-37-2: Inhalation, rat: LC50 = 260 mg/m³/30M;
 Inhalation, rat: LC50 = 130 mg/m³/4H;
 Inhalation, rat: LC50 = 67 ppm(NO₂)/4H;
 .
 RTECS:
CAS# 7732-18-5: Oral, rat: LD50 = >90 mL/kg;
 .

Carcinogenicity: Lead metal - ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans California: carcinogen, initial date 10/1/92 NTP: Suspect carcinogen IARC: Group 2B carcinogen
 Nitric acid - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
 Water - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: The hazards associated with nitric acid and lead may be seen in this product.

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

	IATA	IMO	RID/ADR
Shipping Name:	NITRIC ACID SOLUTION	NITRIC ACID SOLUTION	NITRIC ACID SOLUTION
Hazard Class:	8	8	8
UN Number:	2031	2031	2031
Packing Group:	II	II	II

USA RQ: CAS# 7439-92-1: 10 lb final RQ (no reporting of releases of this hazardous substanc

USA RQ: CAS# 7697-37-2: 1000 lb final RQ; 454 kg final RQ

Section 15 - Regulatory Information**European/International Regulations**

European Labeling in Accordance with EC Directives

Hazard Symbols: C

Risk Phrases:

R 34 Causes burns.

Safety Phrases:

S 23 Do not inhale gas/fumes/vapour/spray.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36 Wear suitable protective clothing.

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# 7439-92-1: Not available

CAS# 7697-37-2: 1

CAS# 7732-18-5: Not available

Canada

CAS# 7439-92-1 is listed on Canada's DSL List

CAS# 7697-37-2 is listed on Canada's DSL List

CAS# 7732-18-5 is listed on Canada's DSL List

US Federal

TSCA

CAS# 7439-92-1 is listed on the TSCA Inventory.

CAS# 7697-37-2 is listed on the TSCA Inventory.

CAS# 7732-18-5 is listed on the TSCA Inventory.

Section 16 - Other Information

Text for R-phrases from Section 2

R 20/22 Harmful by inhalation and if swallowed.

R 33 Danger of cumulative effects.

R 35 Causes severe burns.

R 8 Contact with combustible material may cause fire.

R 61 May cause harm to the unborn child.

R 62 Possible risk of impaired fertility.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

MSDS Creation Date: 4/29/1999

Revision #7 Date 11/07/2007

Revisions were made in Sections: 9

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