

# Material Safety Data Sheet / Safety Data sheet

## Potassium Metal

### Section 1: Chemical Product Identifier and Synonyms

Product Name: Potassium Metal

UN Number: 2557

CAS Number: 7740-09-7

Synonym:

Chemical Formula: K

### Section 2: Composition and Information on Ingredients

Composition

Name	CAS Number:	% By Weight
Potassium Metal	7740-09-7	>100%

**Toxicology Data On Ingredients:** Potassium Metal LD50: Not Available. LC50: Not Available

### Section 3: Hazards Identification

**Potential Acute Health Effects:**

In contact with water releases flammable gases which may ignite spontaneously. Causes severe skin burns and eye damage.

**Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

### Section 4: First Aid Measures

**Eye Contact:**

Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. OBTAIN MEDICAL ATTENTION URGENTLY.

**Skin Contact:**

Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use. OBTAIN MEDICAL ATTENTION URGENTLY.

**Inhalation:**

Remove from exposure. Keep warm and at rest. If conscious place in a sitting position. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. OBTAIN MEDICAL ATTENTION.

**Ingestion:**

If conscious give plenty of water to drink. Do not induce vomiting. OBTAIN MEDICAL ATTENTION URGENTLY.

## Section 5: Fire and Explosion Data

**Flammability of the Product:** This product is flammable.

**Auto-Ignition Temperature:** Not available.

**Flash Points:** Not applicable.

**Flammable Limits:** Not applicable.

**Products of Combustion:** Flammable gases.

**Fire Hazards in Presence of Various Substances:** Water.

**Explosion Hazards in Presence of Various Substances:** Acids.

**Risks of explosion of the product in presence of mechanical impact:** Not available.

**Risks of explosion of the product in presence of static discharge:** Not available.

**Fire Fighting Media and Instructions:** Dry graphite, soda ash, powdered sodium chloride or appropriate metal fire extinguishing powder.

**Special Remarks on Fire Hazards:** Dangerous in contact with water

**Special Remarks on Explosion Hazards:** Reacts dangerously in contact with water – releasing flammable gases.

## Section 6: Accidental Release Measures

**Small Spill:**

Use appropriate tools to put the spilled solid in a convenient waste disposal container.

**Large Spill:**

Stop leak if without risk. Avoid contact with water and liquid acids. Prevent entry into sewers, basements or confined areas; dyke if needed. Call for assistance on disposal.

## Section 7: Handling and Storage

**Precautions:**

Avoid contact with water, acids or other aqueous solutions.

**Storage:**

Store in a dry place protected against moisture and water. Keep well protected from ingress of water and well separated from acids

## Section 8: Exposure Controls / Personal Protection

**Engineering Controls:**

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection:**

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill:**

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:**

Not available.

## Section 9: Physical and Chemical Properties

**Physical state and appearance:** Soft Metallic Ingots / Pieces

**Odour:** Odourless.

**Taste:** Not available.

**Molecular Weight:** 298 g/mole

**Colour:** Metallic.

**pH (1% soln/water):** Not available.

**Boiling Point:** Not available.

**Melting Point:** Decomposes at 400°C (752°F)

**Critical Temperature:** Not available.

**Specific Gravity:** Bulk density is 2.52 (Water = 1) @20 C or 2.348 @ 25

**Vapour Pressure:** Not available.

**Vapour Density:** Not available.

**Volatility:** Not available.

**Odour Threshold:** Not available.

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water.

**Solubility:** Easily soluble in cold water. Insoluble in alcohol

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable, but decomposes dangerously in contact with water

**Instability Temperature:** Not available.

**Conditions of Instability:** Water.

**Incompatibility with various substances:** Large lumps or small hot particles, react explosively with water, ice and aqueous mineral acids. Halogenated alkane solvents eg, carbon tetrachloride, dichloromethane, tetrachloroethane etc. May ignite in concentrated nitric acid, diethyl ether and tetrafluoropropanol. Contact with water evolves hydrogen which may ignite if water is above 40C. Inter halogen compounds eg. bromide tri and pentafluoride, iodine penta and heptafluorides etc. Chloroform and methanol.

**Special Remarks on Reactivity:** Not available.

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

## Section 11: Toxicological Information

**Routes of Entry:** Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

**Toxicity to Animals:** (LD50): Not available. LC50: Not available.

**Chronic Effects on Humans:** Not available.

**Other Toxic Effects on Humans:**

Eyes: Can cause severe burns or blindness on contact with the eyes and fumes from burning material are highly irritating.

Skin: Direct contact with moisture on the skin causes severe thermal and caustic burns.

Ingestion: Ingestion will cause severe mouth burns, and if swallowed extensive damage to the oesophagus.

**Special Remarks on Toxicity to Animals:** Not available.

**Special Remarks on Chronic Effects on Humans:** Not available.

**Special Remarks on other Toxic Effects on Humans:** Not available.

## Section 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:** Not available.

**Toxicity of the Products of Biodegradation:** The products of degradation are as toxic as the original product.

**Special Remarks on the Products of Biodegradation:** Not available.

## Section 13: Disposal Information

**Waste Disposal:** Dispose of in accordance with local regulations

## Section 14: Transport Information

**DOT Classification:** Class: 4.3 Dangerous When Wet

**Identification:** UN Number: 2257 PG: I

**Special Provisions for Transport:** Not available.

## Section 15: Regulatory Information

**Regulations:** Labelling according to Regulation (EC) No 1272/2008.

## Section 16: Other Information

The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials. The author will not be held liable for any damage or injury caused by this product and does not obviate the requirement for end users to carry out their own workplace and specific use risk assessment.

Date of Publication: 19<sup>th</sup> May 2017