



KNIGHT® PRECISION WIRE Ltd

incorporating **KC Smith (Monmouth) Ltd** and **Omega Wire Ltd**

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MATERIAL SAFETY DATA SHEET

NICKEL SILVER WIRE

1. PRODUCT & COMPANY IDENTIFICATION

Trade Name	None
Internal Product Code	NS103, NS104, NS106
Manufacturer/Supplier	Knight Precision Wire Ltd
Address/Contact	As above
Main Contact	Russell Smeaton

2. COMPOSITION / INFORMATION ON INGREDIENTS

9 - 19% Nickel (Ni) dependant on the specification of the particular grade.
60-65% Zinc (Zn) dependant on the specification of the particular grade.
0.04% Max Lead (Pb), 0.30% Max Iron (Fe),
0.05 – 0.50% Manganese (Mn), Total others 0.50% Max.
Remainder of product is Zinc (Zn).

	CAS-No.	EINECS-No.
Cu:	7440-50-8	231-159-6
Zn:	7440-66-6	231-175-3
Mn:	7349-96-5	231-105-1
Ni:	7440-02-0	231-111-4

3. HAZARD IDENTIFICATION

Hazardous property (nickel):	minor toxic Xn
Special hazardous information for human and environment:	R 40 Irreversible harm possible. R 43 Sensibilisation due to skin contact possible.

4. FIRST AID MEASURES

In event of injury to skin & eyes, seek immediate medical attention.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Non Combustible
Special Hazards of Products	This product may give rise to irritant fumes in a fire.
Protective Equipment for Fire fighting	Wear self contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precaution	Avoid dust
Environmental Precaution	No special procedure
Spillages	No special procedure

7. HANDLING AND STORAGE

Under normal circumstances the materials do not produce any hazardous products and such do not require any special precautions in storage. The transient handling of the materials would not be expected to produce any sensitisation, however all materials may carry a thin layer of oil lubricant. It is therefore recommended that gloves are used for handling. Hands should be washed with soap and water before eating, drinking or smoking. The normal precautions for handling heavy metallic objects with possible sharp edges should be observed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional information for arrangement of the technical equipment:
We recommend filtration extraction, if dust or fume arise.

Ingredient with threshold value concerning work place to supervise

CAS-No.	Substance designation	Value	Unit
7440-50-8	copper	1	mg/m ³
7440-50-8	copper – fume	0,1	mg/m ³
7439-96-5	manganese	0,5	mg/m ³
7440-02-0	nickel	0,5	mg/m ³
	breathing droplets	0,05	mg/m ³
1314-13-2	zinc-oxid-fume	5	mg/m ³

Additional remarks:

Base was the valid list of the date of issue.

Engineering Control Measures	Engineering methods to prevent or control exposure are preferred. Methods include, process or personnel enclosure, mechanical ventilation (dilution and local exhaust) and control of process conditions.
Respiratory Protection	Respirator fitted with P3 filters.
Hand Protection	Heat resistant gloves when carrying out hot work.
Eye Protection	Welding visor / goggles when carrying out hot work.

9. PHYSICAL AND CHEMICAL PROPERTIES

Metal Melting Range	1010 – 1100 °C
Specific Gravity	8.6 – 8.7

Flammability (solid/gas): The material is not flammable.

Solubility in/miscibility with water (at 20 °C): negligible g/l;

flux Explosion hazard: No danger of explosion.

10. STABILITY AND REACTIVITY

Thermal decomposition/Conditions to avoid:	No decomposition at application as directed.
Substances to avoid:	Incompatibility with Hg, ammonia, chloric gas and various acids and lyes.
Hazardous decomposition products:	No hazardous decomposition products known.

11. TOXICOLOGICAL INFORMATION

Acute toxicity data:

For nickel LD/LC 50 value:

Primary irritation effect: Skin:

Eye:

Sensitization:

oral > 9.000 mg/kg species rat.

Possible irritation effect at very sensitive persons.

No irritation effect.

possible due skin contact (nickel)

Additional toxicity information:

EG Carc.Cat.3 for nickel.

12. ECOLOGICAL INFORMATION

Grade of water-danger:

In general no water-danger.

nwg (VwVwS)

13. DISPOSAL CONSIDERATIONS

Recycle preferentially. Should waste disposal be deemed necessary follow national or regional regulations which may be in force.

14. TRANSPORT INFORMATION

No special precautions. **Not classified as “dangerous for supply” under chemicals (Hazard Information and packaging Regulations), 1994.**

15. REGULATORY INFORMATION

Designation according to EWG-Rules

The products are classified according to EWG-rules/GefStoffV, but no need to mark the products (compact metals).

Recognition letter and hazard designation of the product, because of its nickel content:

Xn – miner toxic

R-clauses:

R 40 Irreversible harm possible.

R 43 Sensibilisation due to skin contact possible.

S-clauses:

S 22 Do not inhale dust.

S 36 Wear appropriate protective clothing at work.

Technical Regulation Air:

Please take note of - Point 5.2.2, dust like inorganic substances – of the TA-air

Grade of Water-Danger: nwg (VwVwS)

In general no water-danger.

16. OTHER INFORMATION

This information and recommendations contained herein are, to the best of our knowledge and belief, accurate and reliable as of the date issued, but are not offered with our guarantee or warranty. They relate to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Conditions of use of the material are under the control of the user; therefore, it is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.