

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name NICKEL-CHROMIUM, (80/20, 70/30, 60/40, 50/50) PIECES
Synonym(s) KURT J. LESKER NICKEL-CHROMIUM • NICKEL-CHROMIUM

1.2 Uses and uses advised against

Use(s) INDUSTRIAL APPLICATIONS

1.3 Details of the supplier of the safety data sheet

Supplier name DSTG EDINBURGH
Address West Avenue, Edinburgh, SA, Australia, 5111
Telephone (08) 7389 4269
Fax Not supplied
Email Not supplied
Website Not supplied

1.4 Emergency telephone number(s)

Emergency 13 11 26 (24 hrs 7 days)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

GHS Classification(s) Skin Sensitisation: Category 1
 Carcinogenicity: Category 2
 Specific Target Organ Systemic Toxicity (Repeated Exposure): Category 1

2.2 Label elements

Signal word DANGER

Pictograms



Hazard statement(s)

H317 May cause an allergic skin reaction.
 H351 Suspected of causing cancer.
 H372 Causes damage to organs through prolonged or repeated exposure.

Prevention statement(s)

P202 Do not handle until all safety precautions have been read and understood.
 P260 Do not breathe dust/fume/gas/mist/vapours/spray.
 P264 Wash thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response statement(s)

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.
 P321 Specific treatment is advised - see first aid instructions.
 P363 Wash contaminated clothing before reuse.

Storage statement(s)

P405 Store locked up.

Disposal statement(s)

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P501 Dispose of contents/container in accordance with relevant regulations.

2.3 Other Hazards

No information provided.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

Ingredient	CAS number	EC number	Content
NICKEL	7440-02-0	231-111-4	50 - 80%
CHROMIUM	7440-47-3	231-157-5	20 - 50%

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

Inhalation If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.

Skin If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

Ingestion For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.

First aid facilities No information provided.

4.2 Most important symptoms and effects, both acute and delayed

No information provided.

4.3 Immediate medical attention and special treatment needed

Treat symptomatically.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Use an extinguishing agent suitable for the surrounding fire.

5.2 Special hazards arising from the substance or mixture

Non flammable. Molten material may explode in contact with water. May evolve nitrogen oxides, nickel carbonyl and hydrogen gas when heated to decomposition.

5.3 Advice for firefighters

No fire or explosion hazard exists.

5.4 Hazchem code

None allocated

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS.

6.2 Environmental precautions

Prevent product from entering drains and waterways.

6.3 Methods of cleaning up

If spilt, collect and reuse where possible.

6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

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7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area, removed from incompatible substances and foodstuffs. Ensure product is adequately labelled.

7.3 Specific end use(s)

No information provided.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

Substance	Reference	TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
Chromium Metal	SWA (AUS)	--	0.5	--	--
Nickel, metal	SWA (AUS)	--	1	--	--
Nickel, soluble compounds (as Ni)	SWA (AUS)	--	0.1	--	--

Biological limits

Ingredient	Reference	Determinant	Sampling time	BEI
CHROMIUM	ACGIH BEI	Total chromium in urine	End of shift at end of workweek	25 µg/L
	ACGIH BEI	Total chromium in urine	Increase during shift	10 µg/L

8.2 Exposure controls

Engineering Controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical explosion proof extraction ventilation is recommended. Maintain dust / fume levels below the recommended exposure standard.

PPE

- Eye/Face** At high dust levels, wear dust-proof goggles.
- Hand** Wear leather or cotton gloves.
- Body** At high dust levels, wear coveralls.
- Respiratory** Where an inhalation risk exists, wear a Class P2 (Particulate) respirator. At high dust levels, wear a Class P3 (Particulate) respirator.



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- Appearance** SILVER OR GRAY METAL
- Odour** ODOURLESS
- Odour Threshold** NOT AVAILABLE
- Flammability** NON FLAMMABLE
- Flash Point** NOT RELEVANT
- Boiling Point** 5127°C

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Melting Point	1455°C
Evaporation Rate	NOT AVAILABLE
pH	NOT AVAILABLE
Specific Gravity	NOT AVAILABLE
Solubility (water)	INSOLUBLE
Vapour Density	NOT AVAILABLE
Vapour Pressure	NOT AVAILABLE
Upper Explosion Limit	NOT RELEVANT
Lower Explosion Limit	NOT RELEVANT
Partition Coefficient	NOT AVAILABLE
Autoignition Temperature	NOT AVAILABLE
Decomposition Temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive Properties	NOT AVAILABLE
Oxidising Properties	NOT AVAILABLE

9.2 Other information

No information provided.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Carefully review all information in sections 10.2 to 10.6.

10.2 Chemical stability

Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions

Polymerization is not expected to occur.

10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials

Incompatible with acids (e.g. nitric acid), evolving flammable hydrogen gas. Dusts will react with oxidising agents (e.g. hypochlorites), acids and alkalis. If molten, will react explosively with water. Also incompatible with bromine pentafluoride, fluorine, ammonium nitrate, hydrazine, ammonia, performic acid, phosphorous, selenium, sulphur compounds, oxygen, carbon dioxide, magnesium silicate, organic solvents, aluminium, aluminium chloride, ethylene, p-dioxane, acids (e.g. nitric acid), wood and other combustible materials.

10.6 Hazardous decomposition products

May evolve nitrogen oxides, nickel carbonyl and hydrogen gas when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Health Hazard No information provided.
Summary

No information provided.

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No information provided.

No information provided.

No information provided.

NICKEL (7440-02-0)

LD50 (Ingestion): > 9000 mg/kg (Sprague-Dawley rat)

LD50 (Intraperitoneal): 250 mg/kg (rat)

LDLo (Ingestion): 5 mg/kg (guinea pig)

LDLo (Subcutaneous): 7.5 mg/kg (rabbit)

TCLo (Inhalation): 15 mg/m³/91W-I (guinea pig - tumors)

TDLo (Ingestion): 158 mg/kg (rat - foetotoxic)

CHROMIUM (7440-47-3)

LDLo (Ingestion): 71 mg/kg (human)

TDLo (Ingestion): 1.2 mg/kg/6 weeks (rat)

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No information provided.

12.2 Persistence and degradability

No information provided.

12.3 Bioaccumulative potential

No information provided.

12.4 Mobility in soil

No information provided.

12.5 Results of PBT and vPvB assessment

No information provided.

12.6 Other adverse effects

AQUATIC: Mobility of nickel is controlled by various sorbents which scavenge it from solution. In pristine environments, hydrous oxides of iron & manganese control its mobility via sorption & co-precipitation. In polluted environments, the most abundant organic material will keep nickel soluble. Nickel is one of the most mobile heavy metals in aquatic environments and can persist indefinitely in natural waters. It is toxic to plants at 50 - 200 ppm.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal Not applicable.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

	Land Transport (ADG)	Sea Transport (IMDG/IMO)	Air Transport (IATA/ICAO)
14.1 UN number	None Allocated	None Allocated	None Allocated
14.2 UN proper shipping name	None Allocated	None Allocated	None Allocated

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14.3 Transport hazard classes

DG Class	None Allocated	None Allocated	None Allocated
Subsidiary risk(s)	None Allocated	None Allocated	None Allocated

14.4 Packing group

None Allocated	None Allocated	None Allocated
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14.5 Environmental hazards

None Allocated

14.6 Special precautions for user

Hazchem Code	None Allocated
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15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Poison schedule A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Classifications Carc. - Carcinogen
 T - Toxic
 Xi - Irritant

Risk phrases

R40:	Limited evidence of a carcinogenic effect.
R43:	May cause sensitisation by skin contact.
R48/23:	Toxic: danger of serious damage to health by prolonged exposure through inhalation.

Safety phrases

S36/37/39:	Wear suitable protective clothing, gloves and eye/face protection.
S45:	In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

WHS regulatory information

Ingredient name	CAS number	Regulation	Details
CHROMIUM	7440-47-3	Restricted Hazardous Chemicals	Chromium & its compounds. For abrasive blasting >0.5% (except as specified for wet blasting).
		Schedule 14 - Health Monitoring	Chromium (inorganic)
NICKEL	7440-02-0	Restricted Hazardous Chemicals	Nickel & its compounds. For abrasive blasting >0.1%.

Inventory listing(s) **AUSTRALIA: AICS (Australian Inventory of Chemical Substances)**
 All components are listed on AICS, or are exempt.

15.2 Chemical safety assessment

No information provided.

16. OTHER INFORMATION

Additional information BEFORE ADDING TO FURNACE: Ensure all water, grease, oil, chemical residues or ANY foreign material is removed before placing in furnace as contamination may cause explosion. Preheat material and keep dry before placing into furnace.

RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

HEALTH EFFECTS FROM EXPOSURE:
 It should be noted that the effects from exposure to this product will depend on several factors including:

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frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m ³	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

Report Status

This ChemAlert report has been independently compiled by RMT's scientific department utilising the original Safety Data Sheet ('SDS') for the product provided to RMT by the manufacturer. The information is based on the latest chemical and toxicological research and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. It is an independent collation by RMT of information obtained from the original SDS for this product. Its content has not been authorised or verified by the manufacturer / distributor of the chemical to which it relates.

This ChemAlert report does not constitute the manufacturer's original SDS and is not intended to be a replacement for same. It is provided to subscribers of ChemAlert as a reference tool only, is not all-inclusive and does not represent any guarantee as to the properties of the product. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this ChemAlert report, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this ChemAlert report.

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End of Report