

MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Material Name: Diamond Powder.
Catalogue Number: M24-025, M24-05, M24-1, M24-3, M24-6, M24-9.
Other Names:
Recommended Use: Polishing.

Supplier Name: ProSciTech
Street Address: 1/11 Carlton Street, Kirwan, Qld. 4817 Australia
Telephone Number: (07) 4773 9444 **Fax Number:** (07) 4773 2244
Emergency Contact: (07) 4773 9444 8:30am – 5:00pm, Monday to Friday

SECTION 2 - HAZARDS IDENTIFICATION

Hazard Classification: Hazardous according to criteria of NOHSC.
Hazardous and/or Dangerous Nature: HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.
Risk Phrases: R40 Limited evidence of a carcinogenic effect.
R43 May cause sensitisation by skin contact.
Safety Phrases:

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE: **Chemical Identity:** Diamond
Common Name(s):
CAS Number(s): 7782-40-3

MIXTURE:

Ingredients	Cas Number(s)	Proportion (%)
Diamond	7782-40-3	45-100
Nickel	7440-02-0	0-0.55
Copper	7440-50-8	0-0.50

SECTION 4 - FIRST AID MEASURES

Swallowed: Seek medical attention.
Eye: Remove contact lenses. Flush eyes with water for 15 minutes. Seek medical attention if irritation persists.
Skin: Wash affected areas thoroughly with soap and water. Seek medical attention if irritation persists.
Inhaled: If high concentrations are inhaled or if worker exhibits trouble breathing, remove to fresh air, if symptoms persist, seek medical attention.
First Aid Facilities: Eyebath/eyewash & Safety shower.
Medical Attention & Special Treatment:

ADDITIONAL INFORMATION:

SECTION 5 - FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Dry chemical, CO₂, Foam or water.

Hazards from Combustion Products:

Diamond is not a fire hazard and under normal conditions is non-combustible. However diamond dust produced from some processes may be flammable and may pose a fire hazard if allowed to accumulate in the presence of an ignition source. Diamond coated materials may generate toxic gases during a fire and self-contained breathing apparatus should be worn.

Precautions for Fire Fighters:

For a dust fire confined to small area, use approved respirator to avoid inhaling dust and fumes. For large fires, fire fighters should use self-contained breathing apparatus to avoid inhaling any combustion products.

Hazchem Code: Not available.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Emergency Procedures:

Clean-up personnel should wear appropriate personal protective equipment as detailed in Section 8 of this document. Respiratory protection should be worn if hazardous components exceed exposure limits listed in Section 8.

Containment and clean up:

Isolate the area where the spill has occurred, do not walk through or scatter the spilled material. Avoid from entering water or ground water. Waste disposal should be in accordance with local environmental regulations. Clean-up spilled material using a HEPA vacuum, wet mop or wet clean up. Avoid generating dust during clean-up operations. Avoid incompatible substances.

SECTION 7 - HANDLING & STORAGE

Precautions for Safe Handling:

Avoid contact with skin and eyes. Wash hands after handling. Maintain good house keeping procedures to avoid dust accumulation or product becoming airborne.

Conditions for Safe Storage:

Keep material in a tightly closed container. Store in a cool dry area.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: Nickel: TWA 1mg/m³
Copper: TWA 1mg/m³

Biological Limit Values: No biological limit allocated.

Engineering Controls:

Local ventilation should remove any vapour or mist generated while handling this product.

Personal Protective Equipment:

Wear safety glasses with side shields when handling this product. Wear appropriate NIOSH approved respirator of air borne concentrations of hazardous components exceed exposure limits as detailed in Section 2 of this document. Wear protective gloves or barrier cream to avoid irritation and sensitisation. Wear appropriate clothing to avoid skin contact with dust generated during handling operations.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

Appearance: Powder - bland colour.

Odour: Odourless.

pH: Not available.

Vapour pressure (mm of Hg at 25°C): Not available.

Vapour density: Not available.

Boiling point/range (°C): Not available.

Freezing/melting point (°C): Not available.

Solubility: Not available.

Specific gravity or density: Not available.

Flash Point: Not available.

Flammable (explosive) limits: Not available.

Ignition temperature: Not available.

Additional Information:

SECTION 10 - STABILITY AND REACTIVITY

Chemical stability: Stable under normal conditions of use.

Conditions to avoid: Airborne fine powder dust in confined spaces. High heat and flame, diamond begins to burn at 800°C. Under special conditions, nickel can react with carbon monoxide in reducing atmosphere to form nickel carbonyl, a toxic gas. Copper reacts violently with acetylene, ammonia nitrate, bromates, chlorates, iodates, chlorine compounds, ethylene oxide, fluorine, hydrogen peroxide, hydrazine, hydrogen sulphide, hydrazoic acid, lead azide, potassium peroxide, sodium azide and sodium peroxide.

Incompatible Materials: Contact with strong acids. Contact of dust with strong oxidiser may cause fire or explosion.

Hazardous Decomposition Products: Carbon dioxide.

Hazardous Reactions: Will occur if conditions meet with those listed above in conditions to avoid.

SECTION 11 - TOXICOLOGICAL INFORMATION

Exposure and Health Effects: Diamond is not a hazardous material. No acute health effects. No chronic health effects. Exposure to the elements listed in section 2, by skin contact, ingestion and inhalation can occur when handling, chemically treating, heat treating, abrasive cutting, grinding, polishing or abrading the surface of this material in a manner which generates particulates.

Chronic copper poisoning is typified by hepatic cirrhosis, brain damage and demyelization, kidney defects and copper deposition in the cornea as exemplified by humans with Wilson's disease.

Ingestion:

Tissue irritant.

Inhalation:

Mists or dry dust can cause congestion and tissue irritation.

Skin Contact:

Tissue irritant. Nickel may cause dermatitis. Nickel is a contact allergen and sensitizer.

Eye Contact:

Slight irritation, high concentrations may cause conjunctivitis.

Human/Animal data: Not available.

Carcinogenicity: Metallic Nickel is listed by IARC as a Group 2B – Possibly Carcinogenic to Humans.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: This product is not expected to be toxic to the environment. Adopt sound working practices, so that the product is not released into the environment.

Persistence and degradability: Not available.

Mobility: Not available.

Additional Information: Not available.

SECTION 13 - DISPOSAL CONSIDERATIONS**Disposal Methods:**

Dispose of in accordance with local, state and federal laws.

Special Precautions:**SECTION 14 - TRANSPORT INFORMATION**

UN Number: Not regulated.

UN Proper Shipping Name: Not regulated.

Class and Subsidiary risk: Not regulated.

Packing Group: Not regulated.

Special Precautions for User: Not available.

Hazchem Code: Not available.

SECTION 15 - REGULATORY INFORMATION

Poison Schedule Number: None allocated.

SECTION 16 - OTHER INFORMATION

Date of preparation of MSDS: August 10

Comments:

List of Publications referenced when creating this MSDS;

- Hazardous Substances Information System Consolidated Lists: Safe Work Australia.
- APPROVED CRITERIA FOR CLASSIFYING HAZARDOUS SUBSTANCES [NOHSC:1008(2004)] 3rd Edition: National Occupational Health and Safety Commission.
- Dangerous Goods - Initial Emergency Response Guide (SAA/SNZ HB76:1997).
- IATA Dangerous Goods Regulations.
- Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)].
- Australia Standard for the Uniform Scheduling of Drugs and Poisons [SUSPD] (Australian Government Department of Health and Ageing).

This Material Safety Data Sheet (MSDS) has been prepared in compliance with the National code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011(2003)]. It is the user's responsibility to determine the suitability of this information for adoption of necessary safety precautions. The information published in this MSDS has been compiled from the publications listed in Section

16: to the best of our ability and knowledge these publications are considered accurate. We reserve the right to revise Material Safety Data Sheets as new information becomes available. Copies may be made for non-profit use.

... End of MSDS ...