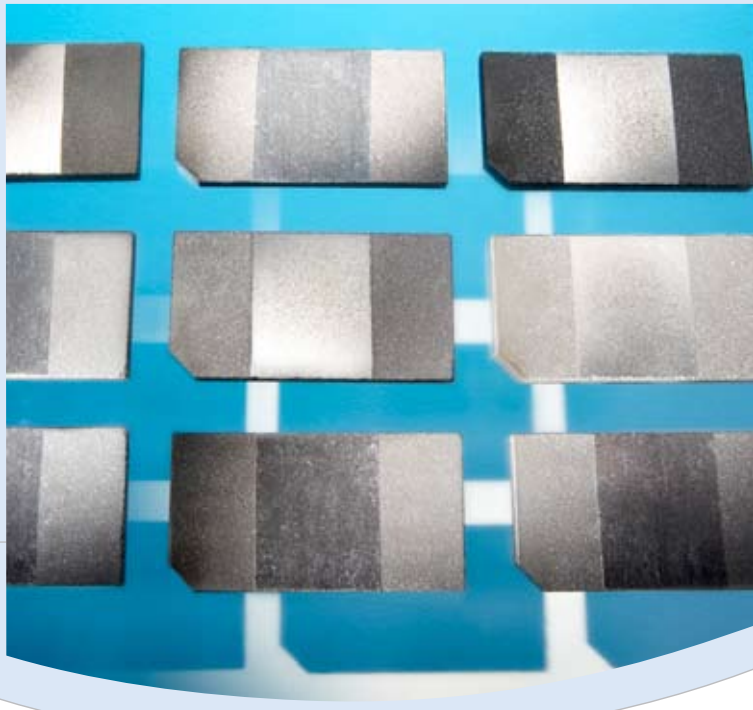
elementsix™

Single Crystal Diamond



Materials Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Product name:	MONOCRYSTAL DIAMOND
Product Description:	MONODIE, MONODITE, MONODRESS SERIES, CVDITE SERIES & CVDRESS SERIES SYNTHETIC DIAMOND
Recommended use:	CUTTING TOOLS FOR NON-FERROUS AND NON-METALLIC MATERIALS, DRESSERS FOR WHEEL DRESSING, A VARIETY OF SPECIALITY KNIVES, BURNISHING TOOLS, WEAR PARTS AND WIRE DRAWING DIES.
Manufacturer:	ELEMENT SIX Ltd., SHANNON AIRPORT, Co CLARE, IRELAND
Emergency Telephone:	+353-61-471655
Date prepared:	27/10/2004

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

MATERIAL	CAS No	% BY WEIGHT	OSHA PEL -TWA	ACGIH TLV-TWA
Diamond	7782-40-3	100%	15mg/m^3	10mg/m^3

SECTION 3 HAZARD IDENTIFICATION

Diamond is not a hazardous material. No acute or chronic health effects.
Potential Health Effects
Eye: Dust may cause irritation.
Skin: May cause tissue irritant.
Ingestion: May cause irritant.
Inhalation: Dust can cause congestion and tissue irritation.

SECTION 4 FIRST AID MEASURES

Inhalation: If high concentrations are inhaled or if worker exhibits trouble breathing, remove to fresh air, if symptoms persist, seek medical attention.
Skin Contact: Wash affected areas thoroughly with soap and water. Seek medical attention if irritation persists.
Eye Contact: Remove contact lenses. Flush eyes with water for 15 minutes. Seek medical attention if irritation persists.
Ingestion: Seek medical attention.

SECTION 5 FIRE FIGHTING MEASURES

FLASH POINT: n/a, LOWER EXPLOSIVE LIMIT: n/a, UPPER EXPLOSIVE LIMIT: n/a
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 prescience of an ignition source.
Extinguishing Media: Dry chemical, CO_2, Foam or water..
Special PPE 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.

SECTION 6 ACCIDENTIAL RELEASE MEASURES

Personal Precaution: 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 2 of this document.

Environmental Precaution: Isolate the area where the spill has occurred, do not walk through or scatter the spilled material.

Method of Cleaning-up: Clean-up spilled material using a HEPA vacuum, wet mops or wet clean up. Avoid generating dust during clean-up operations.

SECTION 7 HANDLING AND STORAGE

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

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

SECTION 8 EXPOSURE CONTROLS/ PERSONAL PROTECTION

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

Personal Protection Equip: Wear safety glasses with side shields when handling this product. Wear appropriate NIOSH approved respirator if airborne concentrations of hazardous components exceed exposure limits as detailed in Section2 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.

Hygiene Measures: Wash hands after handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Yellow brown parts		
Odour: none		Boiling Point: n/a
Flash point: n/a	PH: n/a	Explosive properties: n/a
Vapour Pressure: n/a	Flammability: n/a	Oxidising properties: n/a
Solubility in Water: n/a	Relative Density: n/a	Viscosity: n/a
Vapour Density: n/a	Partition Coeff: n/a	

SECTION 10 STABILITY AND REACTIVITY

Stability: Stable

Conditions to Avoid: Airborne fine powder dust in confined spaces. High heat and flame, diamond begins to burn at 800^{o}C

Materials to Avoid: Contact with strong acids. Contact of dust with strong oxidizer may cause fire or explosion.

Hazardous Decomposition: Carbon dioxide.

SECTION 11 TOXICOLOGICAL INFORMATION

Inhalation:	Diamond dust may irritate throat and respiratory system, may cause coughing.
Skin Contact:	Diamond dust may irritate skin.
Eye Contact:	Diamond dust may cause irritation.
Ingestion:	Not likely due to the form of the product.
Acute Toxicity:	n/a
Local effects:	n/a
Sensitization:	n/a
Chronic Toxicity:	n/a
Long term Toxicity:	n/a
Specific Effects:	n/a

SECTION 12 ECOLOGICAL INFORMATION

Mobility:	Not relevant.
Persistence/Degradability:	Not relevant.
Bioaccumulation:	Not relevant.
Eco-toxicity:	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.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in accordance with appropriate government regulation. May be sold as scrap for reclaim.

SECTION 14 TRANSPORT INFORMATION

ADR: Not regulated. *RID:* Not regulated. *IMDG:* Not regulated. *ICAO / IATA:* Not regulated.

SECTION 15 REGULATORY INFORMATION

Regulations: This MSDS sheet has been prepared according to Eu-regulation. EC Directives 67/548/EEC & 88/379/EEC. ISO11014 Safety Data Sheet for Chemical Products.

SECTION 16 OTHER INFORMATION

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. It is the duty of the user that this information is appropriate and complete with respect to the specific use intended. This MSDS cancels and replaces any preceding release.