

MATERIAL SAFETY DATA SHEET – PCD TOOLS

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15 Section 1 - Chemical Product and Company Identification
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Company's Name: CERATIZIT India Pvt. Ltd.

Company's Address: 16J, Attibele Industrial Area, Anekal Taluk \ Bengaluru 562 107 \ India

Site address: 16J, Attibele Industrial Area, Anekal Taluk \ Bengaluru 562 107 \ India

Company's phone no. +91 80 6772 8000

Company's fax no. +91 80 6772 8100

Web Site: www.ceratizit.com

Trade Name: Polycrystalline Diamond (PCD)

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16 Section 2 - Hazards Identification
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2.1 GHS classification of the substance/mixture and any national or regional GHS classification

Not applicable

Any national or regional Not applicable

2.2 GHS label elements, including precautionary statements

2.2.1. Symbols

No data available

2.2.2. Signal word No data available

2.2.3. Hazard statement No data available

2.2.4. Precautionary statements

Prevention No data available

Response No data available

Storage No data available

Disposal No data available

2.3 Other hazards which do not result in classification

NFPA Grade (0 – 4)

Chemical Name	Health	Fire	Reactivity
Diamond	1	0	0
Cobalt	2	3	0
Tungsten Carbide	1	3	0

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Section 3 – COMPOSITION/INFORMATION ON INGREDIENTS
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CAS#	Chemical Name	% BY WEIGHT	OSHA PEL-TWA	ACGIH TLV-TWA
7782-40-3	Diamond	30-100	-	-
7440-48-4	Cobalt	1-30	0.1mg/m ³	0.02mg/m ³
12070-12-1	Tungsten Carbide	0-70	5mg/m ³	5mg/m ³

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Section 4 - First Aid Measures
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4.1. Eye contact

- **immediately call a POISON CENTER/doctor**
- **If eye irritation persists:** Get medical advice/attention.
- **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

4.2. Skin Contact

- **If skin irritation occurs:** Get medical advice/attention.
- **Take off contaminated clothing and wash it before reuse.**
- Wash with water and soap.

- **IF ON SKIN (or hair):** Take off immediately all contaminated clothing. Rinse skin with water/shower.

4.3. Inhalation

- **If exposed or concerned:** Get medical advice/attention.
- **If inhaled:** Remove person to fresh air and keep comfortable for breathing.
- if breathing is difficult, give oxygen and continue to monitor.

4.4. Ingestion

- **If swallowed:** Immediately call a POISON CENTER/doctor.
- **Rinse the mouth.**

4.5. Indication of immediate medical attention and special treatment needed

- Notify to medical team or managers and do appropriate measures.

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17 Section 5 - Fire Fighting Measures
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- 5.1. General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use extinguishing media appropriate to the surrounding fire. Substance is noncombustible.
- 5.2. Extinguishing Media:** Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.
- 5.3. Flash Point:** Not applicable.
- 5.4. Autoignition Temperature:** Not applicable.
- 5.5. Explosion Limits, Lower:** Not available.
- 5.6. Explosion Limits, Upper:** Not available.
- 5.7. Condition of Flammability:** Requires & continuous flame source to ignite and sustain combustion/explosion

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18 Section 6 - Accidental Release Measures
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6.1. General Information: Use proper personal protective equipment as indicated in Section 8.

6.2. Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean upspills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

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19 Section 7 - Handling and Storage

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7.1. Handling: wear protective gloves. Wear safety glass with side shields or chemical goggles. Avoid contacting and avoid breathing the material. Use only in a well-ventilated area. Wash thoroughly after handling

7.2. Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. No special precautions indicated.

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20 Section 8 - Exposure Controls, Personal Protection

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8.1. Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

8.2. Personal Protective Equipment.

- 8.2.1. Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
- 8.2.2. Skin:** Wear appropriate protective gloves to prevent skin exposure.
- 8.2.3. Clothing:** Wear appropriate protective clothing to prevent skin exposure.
- 8.2.4. Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirators if exposure limits are exceeded or if irritation or other symptoms are experienced.

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21 Section 9 - Physical and Chemical Properties

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- 9.1. Appearance:** Polycrystalline diamond on a tungsten carbide back
- 9.2. Odor:** Not available
- 9.3. Boiling Point:** Not available
- 9.4. Melting Point:** Not available

- 9.5. Vapor Pressure (mmHg): Not available
- 9.6. Vapor Density (Air=1): Not available
- 9.7. Specific Gravity (Water=1): >3.5g/cc
- 9.8. Evaporation Rate and Ref: Not available
- 9.9. Solubility in Water: Insoluble
- 9.10. Percent Volatiles by Volume: Not available
- 9.11. pH: Not available

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22 Section 10 - Stability and Reactivity

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- 10.1. Chemical Stability: Stable.
- 10.2. Conditions to Avoid: excess heat & strong acids
- 10.3. Reactivity: Not reactive under recommended conditions of handling, storage, processing, and use.
- 10.4. In compatibilities with Other Materials: None.

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23 Section 11 - Toxicological Information

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11.1. Health hazards information

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| 11.1.2. Acute toxicity | No data available |
| 11.1.3. Skin corrosion/irritation | No data available |
| 11.1.4. Eye damage/irritation | No data available |
| 11.1.5. Sensitization – Respiratory | No data available |
| 11.1.6. Sensitization – Skin | No data available |
| 11.1.7. Germ cell mutagenicity | No data available |
| 11.1.8. Carcinogenicity | No data available |
| 11.1.9. Toxic to reproduction | No data available |
| 11.1.10. Specific target organ toxicity (Single exposure) | No data available |
| 11.1.11. Specific target organ toxicity (Repeated exposure) | No data available |
| 11.1.12. Aspiration Hazard | No data available |



11.2. Other adverse effects

Cobalt and Tungsten: Inhalation exposure to cobalt dust can produce two types of lung conditions: interstitial lung disease (hard metal disease) or occupational asthma (hypersensitivity allergic obstructive airways syndrome). Skin exposure can result in an allergic red rash (cobalt itch). Cobalt is an anticipated human carcinogen based on animal studies (IARC Group 2B).

Tungsten and tungsten compounds in the presence of cobalt have been associated with hard metal disease and occupational asthma.

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24 Section 12 - Ecological Information

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12.1. Ecotoxicity	No data available
12.2. Persistence and degradability	No data available
12.3. Bio accumulative potential	No data available
12.4. Mobility in soil	No data available
12.5. Other adverse effects.	No data available

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25 Section 13 - Disposal Considerations

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13.1. General Information: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

13.2. Waste Disposal: Recycling is encouraged.

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26 Section 14 - Transport Information

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Regulatory Status: Not Regulated

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27 Section 15 - Regulatory Information

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27.1. Indian Regulations

	Diamond	Cobalt	Tungsten Carbide
ALISH	-	Acceptable concentration	-
ALNCM	-	-	-
SALHM	-	-	-

ALISH: The Administration Law for Industrial Safety and Health.

ALNCM: The Administration Law for Noxious Chemical Materials.

SALHM: The Administration Law for Hazardous Materials.

27.2. American regulations

	Diamond	Cobalt	Tungsten Carbide
CERCLA 103	-	-	-
SARA 302	-	-	-
SARA 304	-	-	-
SARA 311/312	Acute-No Chronic-No Fire-No Responsibility-No Sudden Discharge-No	Acute-Yes Chronic- Yes Fire- Yes Responsibility -No Sudden Discharge-No	Acute-No Chronic-No Fire-Yes Responsibility -No Sudden Discharge-No
SARA 313	-	Cobalt	-
OSHA	-	-	-

The State of America's Regulation

	Diamond	Cobalt	Tungsten Carbide
Californian Proposal Article 65	-	07 01, 1992	-

Californian Proposal Article 65: The regulation for the treatment of drinkable water.

European Union's Regulation

	Diamond	Cobalt	Tungsten Carbide
EU classification	-	-	-

EU classification may not match with it exactly as it's according to independent surveys.

The List of National Material

	Diamond	Cobalt	Tungsten Carbide
TSCA	Available	Available	Available
TSCA 12(b)	N/A	N/A	N/A

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28 Section 16 - Additional Information

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