

GUHRING

SAFETY DATA SHEET

1. Guhring tool incorporates a PCD cutting edge added to the base tool. The ingredients represent the cutting edge applied to a large tool body.

1. IDENTIFICATION

PRODUCT NAME/USE: PCD Cutting Tool

Chemical Description: Polycrystalline Diamond (PCD)

EMERGENCY TELEPHONE NUMBER: 800-776-6170

USE: Cutting edge added to drill to cut metal

2. HAZARD IDENTIFICATION

Emergency Overview:

Hazard Classification- Respiratory Tract irritant

GHS Label Elements: none

Pictogram:



Signal Word = warning

Hazard Statement -Avoid prolonged breathing of fumes during cutting

Precautionary Statement-Use general or mechanical ventilation during cutting

HMIS

Health Hazard	1
Flammability	0
Physical Hazard	0

NFPA Rating 0-0-0

Potential Health Effects:

Inhalation-Can cause respiratory irritation by prolonged cutting without ventilation

Skin-none

Eyes-none

Ingestion-none

3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS #	%	TLV/TWA
Tungsten Carbide	12070-12-1	90-99	5.0 mg/m3 (as Tungsten)
Cobalt	7440-48-4	10-30	0.1 mg/m3

*Source: OSHA 29 CFR 1910.1000 Table Z-1, 2 or 3 1-30-15

4. FIRST AID INFORMATION

EMERGENCY FIRST AID PROCEDURES:

Inhalation:

Remove individual from immediate work area to a supply of fresh air. At a minimum, use standard ventilation practices around operating machine tools. Consult physician if condition persists.

Eye:

Wear approved eye protection whenever using machining tools. Use good practices when securing tooling in a machine.

5. FIRE FIGHTING MEASURES

FLASH POINT: None LOWER (LEL): None

FLAMMABLE LIMITS IN AIR (%): None UPPER (UEL): None

EXTINGUISHING MEDIA: Tools with cutting edge are not flammable. Fight fire normally based upon other materials involved.

AUTO-IGNITION: None

SPECIAL FIRE FIGHTING PROCEDURES: As with any fire, wear self-contained breathing apparatus to avoid inhalation of hazardous decomposition products from other materials that may be involved.

SPECIAL FIRE EXPLOSION HAZARDS: None.

6. ACCIDENTAL RELEASE MEASURES

PROCEDURES TO CONTAIN AND CLEAN UP LEAKS OR SPILLS: Cutting piece is applied to metal tooling and will not be released if tooling is spilled. Pick up and properly store tooling to avoid trip hazard.

REPORTING PROCEDURE: Report all spills in accordance with Federal, State and Local reporting requirements. Guhring is not aware of any environmental reporting requirements for spilled tooling.

7. HANDLING AND STORAGE

HANDLING AND STORAGE: Store tooling in a dry place. Observe proper lifting techniques for bulk tooling.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

RESPIRATORY PROTECTION: General respiratory protection for dust/fumes

VENTILATION: Local Exhaust: General ventilation
Mechanical (General): May control or enclose work area if appropriate
Special: NA
Other: NA

PROTECTIVE GLOVES: As needed for heat or metal slivers on tooling

EYE PROTECTION: Use safety eye wear around operating machines

OTHER PROTECTIVE CLOTHING: NA

9. PHYSICAL AND CHEMICAL PROPERTIES

Cutting tools are solid objects made up of steel with solid PCD brazed to cutting tip

Boiling Point @ 760 mm Hg (°C):	None	Evaporation Rate (Butyl Acetate = 1):	None
Vapor Pressure (mm Hg @ 25°C):	None	Physical State:	solid
Density (grams/cc):	None	Solubility in Water (% by Weight):	None
Percent Volatile by Volume (%):	None	pH:	None
Auto-ignition or melt point	None	Flash point	None
Viscosity	None	Decomposition temp (no info available)	NIA
Appearance and Odor:	Geometric or cylindrical solid metal objects with no odor		

10. STABILITY AND REACTIVITY

<u>Stable or Unstable:</u>	Stable
<u>Incompatibility (materials to avoid):</u>	Exposure to strong mineral acids
<u>Hazardous Decomposition Products:</u>	NA
<u>Decomposition Temperature:</u>	NA
<u>Hazardous Polymerization:</u>	Will not occur
<u>Conditions to Avoid:</u>	NA

11. TOXICOLOGICAL INFORMATION

THRESHOLD LIMIT VALUE (TLV) AND SOURCE: Guhring cutting tools are a metal tool with a small amount of the cobalt containing carbide (PCD) material (see section 3) braised onto the cutting tip surface of the metal tool. An extremely small amount of particulate containing the solid carbide/cobalt material may be released during intermittent tool use.

Cobalt is listed by IARC as a class 2B suspect human carcinogen. Since Cobalt is also an essential element for all animals it is the degree of an exposure that may cause health effects.

The small amount of cobalt contained in the material within the tip of a single cutting tool is not sufficient to create a short or long term exposure to the PEL or TLV level. In any case, avoid prolonged exposure to fumes from cutting tools and use general or spot ventilation in continuous operations.

12. ECOLOGICAL INFORMATION

Used tooling may be re-coated several times before it reaches end of life. Guhring recommends returning the tooling for recoating as many times as practical and then recycling the metal tool appropriately at end-of-useful-life. No potential ecological hazards are known.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Guhring recommends returning the tooling for reconditioning if practical and then recycling the metal tool appropriately at end-of-useful-life.

14. TRANSPORTATION INFORMATION

TRANSPORTATION-SHIPPING: The cutting tip on twist drills and taps does not classify the tooling for any hazard class per USDOT regulations. To our knowledge the tooling is not a hazardous material. Always ship tools in accordance with 49 CFR, IATA, ICAO, UN regulations or other local regulations that may be required for the base tool material.

15. REGULATORY INFORMATION

Cobalt metal powder is identified on the California Prop 65 list of potential carcinogens.

SARA 313

Notification is not required because the cobalt content of the cutting tool tip is below the threshold reporting value. Reporting requirements may vary based upon your other facility requirements.

16. SDS INFORMATION

<u>Environmental Health & Safety Information:</u>	262-784-6730
<u>EDITION DATE:</u>	02-03-15
<u>APPROVED BY:</u>	Don Rancic

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