



HOGEN INDUSTRIES, INC.
OF INDIANA
4655 Massachusetts Avenue
Indianapolis, IN 46218
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MATERIAL SAFETY DATA SHEET

ISSUED DATE 12-02-85 REVISED DATE 9-30-09

I. IDENTIFICATION

| | | | | | | | |
|---------------------------------|-----------------------|--|-----|-------------------------|-------|----------------|--|
| MANUFACTURER'S NAME | | Hogen Industries, Inc. | | EMERGENCY TELEPHONE NO. | | (317) 591-5070 | |
| ADDRESS | | 4655 Massachusetts Avenue - Indianapolis, IN 46218 | | | | | |
| CHEMICAL NAME AND SYNONYMS | | Tungsten Carbide, Copper | | TRADE NAME AND SYNONYMS | | H20TC | |
| C.A.S. NO. | NIF | T.S.C.A. NO. | NIF | FORMULA | WC-Cu | | |
| DEPARTMENT OF TRANSPORTATION | HAZARD CLASSIFICATION | NIF | | U.N. NO. | NIF | | |
| | SHIPPING NAME | H20TC Tungsten Carbide -Copper | | | | | |

II. INGREDIENTS

| MATERIAL | % | TLV (Units) | C.A.S. NO. | NFPA RATING 4 = EXTREME 3 = HIGH 2 = MODERATE 1 = SLIGHT 0 = INSIGNIFICANT |
|------------------|----|-----------------------|------------|---|
| Tungsten Carbide | 70 | 5 MG/M ³ | 11130-73-7 | |
| Copper | 30 | 1.0 MG/M ³ | 7440-50-8 | |
| | | | | |
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| | | | | |

REPORT ALL INGREDIENTS ≥3%; IF HAZARDOUS, REPORT ≥1%; SPECIAL HAZARDOUS SUBSTANCE ≥0.01%

III. PHYSICAL DATA

| | | | |
|--|-----------------------------------|-------------------------------|-----------|
| BOILING POINT, 760mm Hg 101.325 kPa | WC- 6000°C Cu - 2567°C | FREEZING POINT | N/A |
| SPECIFIC GRAVITY (H ₂ O=1) | 12.6 g/cc | VAPOR PRESSURE AT 20°C | N/A |
| VAPOR DENSITY (AIR=1) | N/A | SOLUBILITY IN WATER, % BY WT. | Insoluble |
| APPEARANCE AND ODOR | Metallic Copper Colored - No odor | | |

IV. FIRE AND EXPLOSION HAZARD DATA

| | | | | | |
|------------------------------------|--|----------------------|-----|-----|-----|
| FLASH POINT (Method Used) | N/A | FLAMMABLE LIMITS LEL | NIF | UEL | NIF |
| EXTINGUISHING MEDIA | Class D | | | | |
| SPECIAL FIRE FIGHTING PROCEDURES | | | | | |
| UNUSUAL FIRE AND EXPLOSION HAZARDS | Gives off CO and/or CO ₂ when burning in Oxygen containing atmosphere. Will oxidize above 1300°F. | | | | |

V. REACTIVITY DATA

| | | | |
|---|--------|--|--------------|
| STABILITY | | | |
| UNSTABLE | STABLE | CONDITIONS TO AVOID | Strong acids |
| | X | | |
| INCOMPATIBILITY (Materials to Avoid) | | | |
| HAZARDOUS DECOMPOSITION PRODUCTS | | CO and/or CO ₂ - Nitrogen Oxide | |

VI. HEALTH HAZARD DATA

| | | | | |
|--|--------------|---|------------|--|
| THRESHOLD LIMIT VALUE | OSHA | Tungsten Carbide 5 MG/M ³ Copper 1.0 MG/M ³ | ACGIH | Tungsten Carbide 5 MG/M ³ Copper 1.0 MG/M ³ |
| ROUTES OF EXPOSURE (Check Those Which Apply) | EYE CONTACT | No | INHALATION | No |
| | SKIN CONTACT | No | INGESTION | No |
| SIGNS AND SYMPTOMS OF OVEREXPOSURE NIF (No information found) | | | | |
| EFFECTS OF OVEREXPOSURE | | | | |
| ACCUTE NIF | | | | |
| CHRONIC NIF | | | | |
| HAS IOSHA FOUND THIS MATERIAL TO BE A POTENTIAL CARCINOGEN? YES NO X | | | | |
| EMERGENCY FIRST AID PROCEDURES | | | | |

VII. SPILL OR LEAK PROCEDURES

| | |
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| STEPS TO BE TAKEN IF MATERIAL IS RELATED OR SPILLED | |
| WASTE DISPOSAL METHOD | Re-cycle all scrap and machine turnings. |
| DISPOSER MUCH COMPLY WITH FEDERAL, STATE AND LOCAL DISPOSAL OR DISCHARGE LAWS. | |

VIII. SPECIAL PROTECTION INFORMATION

| | | | |
|---------------------------------------|-------------------------|---|-----------------------------------|
| RESPIRATORY PROTECTION (Specify Type) | | Use NIOSHA/MSHA approved type respirator for dusting conditions | |
| VENTILATION | LOCAL EXHAUST | Recommended | SPECIAL NIF |
| | MECHANICAL (General) | NIF | OTHER NIF |
| PROTECTIVE GLOVES | | None | EYE PROTECTION Use safety eyewear |
| OTHER PROTECTIVE EQUIPMENT | | None | |

IX. SPECIAL PRECAUTIONS

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| PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING | Store in cool, dry, well ventilated area. Separate from acids and alkalis. |
| OTHER PRECAUTIONS | |

DISCLAIMER OF LIABILITY

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