



Safety Data Sheet

acc. to OSHA HCS

Printing date 07/02/2024

Version 6.0

Last revision 06/01/2024

* 1 Identification

- **Product name:** Diamond Tools - Very Fine and Fine, Metal Bond
- **Part number:**
TBD
15-92VFMB0.70 - 15-92VFMB5.0
15-92FMB0.70 - 15-92FMB3.0
15-92MMB1.0 - 15-92MMB3.0
15-92CMB3.0
- **Application of the substance / the mixture** Abrasive
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Allied High Tech Products Inc.
16207 Carmenita Road
USA-Cerritos, CA, 90703
USA
info@alliedhightech.com
- **Information department:** Product safety department
- **Emergency telephone number:**
During normal opening times: +1 (310) 635-2466
Chemtec: +1 (202) 483-7616

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Sensitization - Respiratory 1

Germ Cell Mutagenicity 2

Carcinogenicity 1B

Toxic to Reproduction 1B

Specific Target Organ Toxicity - Repeated Exposure 1

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H360 May damage fertility or the unborn child.

H372 Causes damage to the lung through prolonged or repeated exposure. Route of exposure: Oral, Inhalation.



GHS09 Environment

Aquatic Chronic 2

H411 Toxic to aquatic life with long lasting effects.



GHS07

Sensitization - Skin 1

H317 May cause an allergic skin reaction.

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Additional information:

Based on health effects for dust

All components listed for this product are bound within the product. When handled as intended and under normal conditions of use, there is no evidence that any of the ingredients are released in amounts that pose a significant health risk.

Label elements

GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms

GHS08 GHS09

Signal word Danger**Hazard-determining components of labeling:**

cobalt

nickel powder (particle diameter < 1 mm)

Hazard statements

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

May cause cancer.

May damage fertility or the unborn child.

Causes damage to the lung through prolonged or repeated exposure. Route of exposure: Oral, Inhalation.

Toxic to aquatic life with long lasting effects.

Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Contaminated work clothing must not be allowed out of the workplace.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

[In case of inadequate ventilation] wear respiratory protection.

If on skin: Wash with plenty of water.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

If exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Get medical advice/attention if you feel unwell.

If skin irritation or rash occurs: Get medical advice/attention.

If experiencing respiratory symptoms: Call a poison center/doctor.

Wash contaminated clothing before reuse.

Collect spillage.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Description: Mixture of the substances listed below with nonhazardous additions.

Hazardous components and components with occupational exposure limits:

7440-50-8	copper	25-30%
	Aquatic Chronic 2, H411	

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1309-37-1	diiron trioxide	10-20%
7440-48-4	cobalt ⚠ Sensitization - Respiratory 1, H334; Germ Cell Mutagenicity 2, H341; Carcinogenicity 1B, H350; Toxic to Reproduction 1B, H360; ⚠ Sensitization - Skin 1, H317; Aquatic Chronic 4, H413	10-20%
409-21-2	silicon carbide	5-10%
7440-31-5	tin	5-10%
7440-47-3	chromium	5-10%
7440-02-0	nickel powder (particle diameter < 1 mm) ⚠ Carcinogenicity 2, H351; Specific Target Organ Toxicity - Repeated Exposure 1, H372; ⚠ Sensitization - Skin 1, H317; Aquatic Chronic 3, H412	2.5-<5%
7439-98-7	molybdenum	1-5%
7440-22-4	silver	1-5%
7782-42-5	Graphite	1-5%

· **Non-hazardous components:**

Glass or glass porcelain

1-5%

· **Additional information:** The specific chemical identity and/or exact percentage of the composition has been withheld as a trade secret.

4 First-aid measures

· **Description of first aid measures**

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** If symptoms persist consult doctor.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed**

Breathing difficulty

Eye irritation

Coughing

Allergic reactions

Dermatitis

Dermatitis

· **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

Alcohol resistant foam

Carbon dioxide

ABC powder

Water spray

Use fire fighting measures that suit the environment.

· **Special hazards arising from the substance or mixture** During heating or in case of fire poisonous gases are produced.

· **Advice for firefighters**

· **Protective equipment:** Wear fully protective suit.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Keep away from ignition sources

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- **Environmental precautions:** Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure proper ventilation/exhaustion at workplaces.
Open and handle receptacle with care.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store receptacle in a well ventilated area.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No additional data. See 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

7440-50-8 copper

PEL	Long-term value: 1 * 0.1** mg/m ³ as Cu *dusts and mists **fume
REL	Long-term value: 1 * 0.1** mg/m ³ as Cu *dusts and mists **fume
TLV	Long-term value: 1 * 0.2** mg/m ³ *dusts and mists; **fume; as Cu

1309-37-1 diiron trioxide

PEL	Long-term value: 10* mg/m ³ *Fume
REL	Long-term value: 5 mg/m ³ Dust & fume, as Fe
TLV	Long-term value: 5* mg/m ³ *Respirable particulate matter, A4

7440-48-4 cobalt

PEL	Long-term value: 0.1* mg/m ³ as Co; *for metal dust and fume
REL	Long-term value: 0.05 mg/m ³ as Co; metal dust & fume
TLV	Long-term value: 0.02* 0.005** mg/m ³ RSEN,DSEN,A3,BEI,**thoracic particulates,A2

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409-21-2 silicon carbide	
PEL	Long-term value: 15* 5** mg/m ³ fibrous dust: *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV	Long-term value: 10* 3** mg/m ³ fibrous dust:0.1 f/cc A2, nonfibrous:*inh.,**resp.
7440-31-5 tin	
PEL	Long-term value: 2 mg/m ³ metal
REL	Long-term value: 2 mg/m ³
TLV	Long-term value: 2* mg/m ³ metal, *inh. particulate matter
7440-47-3 chromium	
PEL	Long-term value: 1 mg/m ³
REL	Long-term value: 0.5* mg/m ³ *metal+inorg.compds.as Cr;See Pocket Guide App. C
TLV	Long-term value: 0.003* 0.5** mg/m ³ inh. fraction, *as Cr(III): A4,**metal
7440-02-0 nickel powder (particle diameter < 1 mm)	
PEL	Long-term value: 1 mg/m ³
REL	Long-term value: 0.015 mg/m ³ as Ni; See Pocket Guide App. A
TLV	Long-term value: 1.5* mg/m ³ elemental, *inhalable fraction, A5, BEI
7439-98-7 molybdenum	
PEL	Long-term value: 15* mg/m ³ *Total dust, as Mo
TLV	Long-term value: 10* 3** mg/m ³ as Mo; *inhalable fraction ** respirable fraction
7440-22-4 silver	
PEL	Long-term value: 0.01 mg/m ³
REL	Long-term value: 0.01 mg/m ³
TLV	Long-term value: 0.1 mg/m ³ metal: dust and fume
7782-42-5 Graphite	
PEL	Long-term value: 15 mppcf* mg/m ³ *impinger samples counted by light field techn.
REL	Long-term value: 2.5* mg/m ³ *respirable dust
TLV	Long-term value: 2* mg/m ³ all forms except graphite fibers;*resp. fraction
· Ingredients with biological limit values:	
7440-48-4 cobalt	
BEI	15 µg/L Medium: urine Time: end of shift at end of workweek Parameter: Cobalt (nonspecific)

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7440-47-3 chromium	
BEI	0.7 µg/L Medium: urine Time: end of shift at end of workweek Parameter: Total chromium (population based)
7440-02-0 nickel powder (particle diameter < 1 mm)	
BEI	5 µg/L Medium: urine Time: post-shift at end of workweek Parameter: Nickel (background) 30 µg/L Medium: urine Time: post-shift at end of workweek Parameter: Nickel (background)

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
- **Breathing equipment:** Use suitable respiratory protective device when high concentrations are present.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

<ul style="list-style-type: none"> · Information on basic physical and chemical properties · General Information · Appearance: <table> <tr> <td>Form:</td><td>Solid</td></tr> <tr> <td>Color:</td><td>Dark grey</td></tr> </table> · Odor: Odorless · Odor threshold: Not determined. 		Form:	Solid	Color:	Dark grey
Form:	Solid				
Color:	Dark grey				
· pH-value:	Not applicable.				
<ul style="list-style-type: none"> · Change in condition <table> <tr> <td>Melting point/Melting range:</td><td>>220 °C (>428 °F)</td></tr> </table> 		Melting point/Melting range:	>220 °C (>428 °F)		
Melting point/Melting range:	>220 °C (>428 °F)				

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Boiling point/Boiling range:	Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not determined.
· Decomposition temperature:	Not determined.
· Ignition temperature:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure:	Not applicable.
· Density:	Not determined.
· Relative density	Not determined.
· Vapor density	Not applicable.
· Specific gravity:	4-9
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Slightly soluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Solvent content:	
VOC content:	0.00 %
Solids content:	100.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Keep away from oxidising agents and acidic substances.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values that are relevant for classification:		
1309-37-1 diiron trioxide		
Oral	LD50	>5,000 mg/kg (rat)
7440-48-4 cobalt		
Oral	LD50	6,170 mg/kg (rat)
409-21-2 silicon carbide		
Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)

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7440-02-0 nickel powder (particle diameter < 1 mm)		
Dermal	LD50	>5,000 mg/kg (rat)
<ul style="list-style-type: none"> · Primary chemical irritant effect: · on the skin: No irritant effect. · on the eye: No irritating effect. · Sensitization: Sensitization possible through inhalation. Sensitization possible through skin contact. · Additional toxicological information: Abrasive skin irritant Abrasive eye irritant · Carcinogenic categories 		
· IARC (International Agency for Research on Cancer)		
1309-37-1	diiron trioxide	3
7440-48-4	cobalt	2A
409-21-2	silicon carbide	2A
7440-47-3	chromium	3
7440-02-0	nickel powder (particle diameter < 1 mm)	2B
· NTP (National Toxicology Program)		
7440-48-4	cobalt	R
7440-02-0	nickel powder (particle diameter < 1 mm)	R
· OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients is listed.		

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
- Do not allow product to reach ground water, water course or sewage system, even in small quantities.
- Danger to drinking water if even extremely small quantities leak into the ground.
- Also poisonous for fish and plankton in water bodies.
- Toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Contact waste processors for recycling information.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

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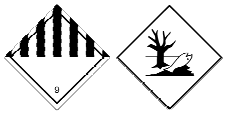
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14 Transport information

<ul style="list-style-type: none"> · UN-Number · DOT · IMDG, IATA 	not regulated UN3077
<ul style="list-style-type: none"> · UN proper shipping name · DOT · IMDG · IATA 	not regulated ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (copper), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (copper)
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT · Class 	not regulated
<ul style="list-style-type: none"> · IMDG, IATA 	
<ul style="list-style-type: none"> · Class · Label 	9 Miscellaneous dangerous substances and articles 9
<ul style="list-style-type: none"> · Packing group · DOT · IMDG, IATA 	not regulated III
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: · Special marking (IATA): 	Symbol (fish and tree) Symbol (fish and tree)
<ul style="list-style-type: none"> · Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category · Stowage Code 	Warning: Miscellaneous dangerous substances and articles 90 F-A,S-F A SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	Not applicable.
<ul style="list-style-type: none"> · Transport/Additional information: · DOT · Limited quantities (LQ) · Transport category · Tunnel restriction code 	5 kg 3 (-)
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
<ul style="list-style-type: none"> · UN "Model Regulation": 	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COPPER), 9, III

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15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

7440-50-8 copper

7440-48-4 cobalt

7440-47-3 chromium

7440-02-0 nickel powder (particle diameter < 1 mm)

7440-22-4 silver

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

· Hazardous Air Pollutants

7440-48-4 cobalt

· Proposition 65

· Chemicals known to cause cancer:

7440-48-4 cobalt

7440-02-0 nickel powder (particle diameter < 1 mm)

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· National regulations:

· Information about limitation of use:

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

To the best of our knowledge, the information contained herein is accurate. However, it does not describe a guarantee of product properties and does not establish a contractual legal relationship.

- Department issuing SDS: Technical Services
- Contact: Pablo Mendoza
- Last revision / supersedes version: 06/01/2024 / 5.0
- Supersedes date: 12/01/2022
- Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

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vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Sensitization - Respiratory 1: Respiratory sensitisation – Category 1

Sensitization - Skin 1: Skin sensitisation – Category 1

Germ Cell Mutagenicity 2: Germ cell mutagenicity – Category 2

Carcinogenicity 1B: Carcinogenicity – Category 1B

Carcinogenicity 2: Carcinogenicity – Category 2

Toxic to Reproduction 1B: Reproductive toxicity – Category 1B

Specific Target Organ Toxicity - Repeated Exposure 1: Specific target organ toxicity (repeated exposure) – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4

*** Data compared to the previous version altered.**