



Safety Data Sheet

Material Name: WCM and WCS RECLAIM MATERIAL

SDS ID: 00230038

*** Section 1 - PRODUCT AND COMPANY IDENTIFICATION ***

Material Name: WCM and WCS RECLAIM MATERIAL

Manufacturer Information

ALLDYNE POWDER TECHNOLOGIES

Phone: (256) 837-1311

7300 Highway 20 West

Huntsville, AL 35806

Emergency # 1-800-424-9300 (CHEMTREC)

*** Section 2 - HAZARDS IDENTIFICATION ***

EMERGENCY OVERVIEW

Color: dark, gray

Physical Form: powder

Odor: odorless

Health Hazards: respiratory tract irritation, skin irritation, eye irritation, allergic reactions, suspect cancer hazard (in animals)

Physical Hazards: Negligible fire and explosion hazard in bulk form. Dust/air mixtures may ignite or explode.

POTENTIAL HEALTH EFFECTS

Inhalation

Short Term: irritation, allergic reactions, fever, difficulty breathing, headache, dizziness, lung congestion

Long Term: irritation, allergic reactions, lack of sense of smell, changes in blood pressure, loss of appetite, weight loss, chest pain, difficulty breathing, asthma, irregular heartbeat, headache, sleep disturbances, emotional disturbances, pain in extremities, hearing loss, lung damage, blood disorders, heart disorders, kidney damage, liver damage, paralysis, reproductive effects, cancer

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Skin

Short Term: irritation, allergic reactions, skin disorders

Long Term: irritation, allergic reactions, skin disorders

Eye

Short Term: irritation

Long Term: irritation

Ingestion

Short Term: irritation, nausea, vomiting, diarrhea, headache, dizziness

Long Term: irritation, rash, changes in blood pressure, ringing in the ears, nausea, vomiting, diarrhea, stomach pain, difficulty breathing, irregular heartbeat, disorientation, hearing loss, bluish skin color, blood disorders, heart disorders, nerve damage

*** Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS ***

CAS	Component	Percent
12070-12-1	TUNGSTEN CARBIDE	50 - 99.5
12070-08-5	TITANIUM CARBIDE	0 - 30
12070-06-3	TANTALUM CARBIDE	0 - 30
7440-48-4	COBALT	0 - 30
7440-33-7	TUNGSTEN	<10
7440-02-0	NICKEL	0 - 20
12069-94-2	NIOBIUM CARBIDE	0 - 15
12012-35-0	CHROMIUM CARBIDE	0 - 5.1
7439-98-7	MOLYBDENUM	<2
Not Available	FISH OIL	<0.5
334-48-5	CAPRIC ACID	<0.5
8012-89-3	BEESWAX	<0.5

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Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Tungsten compounds, n.o.s., Tungsten carbide (WC) (52555-87-0), Titanium compounds, Titanium carbide (TiC) (56780-56-4), Titanium carbide (TiC) (11130-15-7), Titanium carbide (TiC) (11130-16-8), Tantalum carbide (TaC) (12620-05-2), Cobalt compounds, Cobalt, inorganic compounds, Tungsten, insoluble compounds, Nickel compounds, Nickel, inorganic compounds, Niobium carbide (NbC) (11129-66-1), Niobium carbide (NbC) (11129-67-2), Chromium compounds, , Molybdenum compounds, n.o.s..

* * * Section 4 - FIRST AID MEASURES * * *

Inhalation

If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

Skin

Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

Eyes

Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Ingestion

If a large amount is swallowed, get medical attention.

Note to Physicians

For inhalation, consider oxygen.

* * * Section 5 - FIRE FIGHTING MEASURES * * *

See Section 9 for Flammability Properties

NFPA Ratings: Health: 2 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Flammable Properties

Negligible fire and explosion hazard in bulk form. Dust/air mixtures may ignite or explode.

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Extinguishing Media

dolomite, dry powder for metal fires, dry sand, graphite, soda ash, sodium chloride

Fire Fighting Measures

Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products.

* * * Section 6 - ACCIDENTAL RELEASE MEASURES * * *

Water Release

Subject to California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). Keep out of water supplies and sewers.

Occupational spill/release

Avoid heat, flames, sparks and other sources of ignition. Do not touch spilled material. Small spills: Collect spilled material in appropriate container for disposal. Move containers away from spill to a safe area. Large spills: Wet down area with water. Dike for later disposal. Remove sources of ignition. Keep unnecessary people away, isolate hazard area and deny entry. Clean up residue with a high-efficiency particulate filter vacuum. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).

* * * Section 7 - HANDLING AND STORAGE * * *

Handling Procedures

Wash thoroughly after handling. Avoid breathing dust. Minimize dust generation and accumulation.

Storage Procedures

Store and handle in accordance with all current regulations and standards. See original container for storage recommendations. Keep separated from incompatible substances.

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*** Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION ***

Component Analysis

COBALT (7440-48-4)

ACGIH: 0.02 mg/m3 TWA

OSHA (final): 0.1 mg/m3 TWA dust and fume

OSHA (vacated): 0.05 mg/m3 TWA dust and fume

NIOSH: 0.05 mg/m3 TWA dust and fume

TUNGSTEN (7440-33-7)

ACGIH: 5 mg/m3 TWA

10 mg/m3 STEL

OSHA (vacated): 10 mg/m3 STEL

5 mg/m3 TWA

NIOSH: 10 mg/m3 STEL

5 mg/m3 TWA

NICKEL (7440-02-0)

ACGIH: 1.5 mg/m3 TWA (inhalable fraction)

OSHA (final): 1 mg/m3 TWA

OSHA (vacated): 1 mg/m3 TWA

NIOSH: 0.015 mg/m3 TWA

MOLYBDENUM (7439-98-7)

ACGIH: 10 mg/m3 TWA (inhalable fraction); 3 mg/m3 TWA (respirable fraction)

OSHA (vacated): 10 mg/m3 TWA

Ventilation

Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

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PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face

Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Protective Clothing

Protective clothing is not required under normal conditions.

Glove Recommendations

Protective gloves are not required under normal conditions.

Respiratory Protection

Under conditions of frequent use or heavy exposure, respiratory protection may be needed.

At minimum an air-purifying respirator with a high-efficiency particulate filter is recommended.

Consult with a health and safety professional for specific respirators appropriate for your use.

* * * Section 9 - PHYSICAL AND CHEMICAL PROPERTIES * * *

Physical State: Solid	Appearance: Not available
Color: dark, gray	Physical Form: powder
Odor: odorless	Odor Threshold: Not available
Melting Point: Not available	Boiling Point: Not applicable
Vapor Pressure: Not applicable	Vapor Density (air = 1): Not applicable
Density: 5.4 - 15.5 g/cc	Specific Gravity (water = 1): Not available
Water Solubility: insoluble	Coeff. Water/Oil Dist: Not available

* * * Section 10 - STABILITY AND REACTIVITY * * *

Chemical Stability

Stable at normal temperatures and pressure.

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Conditions to Avoid

Avoid generating dust. Avoid heat, flames, sparks and other sources of ignition.

Materials to Avoid

oxidizing materials, strong acids

Decomposition Products

miscellaneous decomposition products

Possibility of Hazardous Reactions

Will not polymerize.

*** Section 11 - TOXICOLOGICAL INFORMATION ***

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

COBALT (7440-48-4)

Inhalation LC50 Rat: >10 mg/L/1H; Oral LD50 Rat: 6170 mg/kg

NICKEL (7440-02-0)

Oral LD50 Rat: >9000 mg/kg

CAPRIC ACID (334-48-5)

Oral LD50 Rat: 3320 mg/kg; Dermal LD50 Rabbit: >5000 mg/kg

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RTECS Acute Toxicity (selected)

The components of this material have been reviewed, and RTECS publishes the following endpoints:

COBALT (7440-48-4)

Oral: 6171 mg/kg oral rat LD50

CAPRIC ACID (334-48-5)

Oral: >10 gm/kg oral rat LD50

Acute Toxicity Level

COBALT (7440-48-4)

Slightly Toxic: ingestion.

Component Carcinogenicity

COBALT (7440-48-4)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

IARC: Monograph 86 [2006]; Monograph 52 [1991] (Group 2B (possibly carcinogenic to humans))

DFG: Category 2 (considered to be carcinogenic for man)

NICKEL (7440-02-0)

ACGIH: A5 - Not Suspected as a Human Carcinogen

IARC: Monograph 49 [1990] (Group 1 (carcinogenic to humans))

DFG: Category 1 (causes cancer in man)

RTECS Irritation

The components of this material have been reviewed, and RTECS publishes the following endpoints:

TUNGSTEN (7440-33-7)

500 mg/24 hour(s) eyes rabbit mild; 500 mg/24 hour(s) skin rabbit mild

CAPRIC ACID (334-48-5)

500 mg/24 hour(s) skin rabbit moderate; 100 percent/24 hour(s) open skin rabbit severe

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Local Effects

COBALT (7440-48-4)

Irritant: inhalation, skin, eye.

NICKEL (7440-02-0)

Irritant: inhalation, skin.

CAPRIC ACID (334-48-5)

Irritant: inhalation, skin.

Corrosive: eye.

Target Organs

COBALT (7440-48-4)

immune system (sensitizer).

NICKEL (7440-02-0)

immune system (sensitizer).

Medical Conditions Aggravated by Exposure

liver and/or kidney disorders, respiratory disorders, immune system disorders or allergies, respiratory disorders, liver disorders, skin disorders and allergies, respiratory disorders, respiratory disorders, skin disorders and allergies

RTECS Tumorigenic

The components of this material have been reviewed, and RTECS publishes the following endpoints:

COBALT (7440-48-4)

75 mg/kg implant rabbit TDLo; 126 mg/kg intramuscular rat TD; 126 mg/kg intramuscular rat TDLo

NICKEL (7440-02-0)

15 mg/m³ inhalation guinea pig TCLo (91 week(s)); 200 mg/kg intramuscular hamster TDLo (21 week(s)); 800 mg/kg intramuscular mouse TD (13 week(s)); 200 mg/kg intramuscular mouse TDLo; 165 mg/kg implant rabbit TDLo (2 year(s)); 23 mg/kg implant rat TD; 250 mg/kg implant rat TDLo; 200 mg/kg intramuscular rat TD (21 week(s)); 125 mg/kg intramuscular rat TD (13 week(s)); 1 gm/kg intramuscular rat TD (17 week(s)); 58 mg/kg intramuscular rat TD; 889 ug/kg intramuscular rat TD; 90 mg/kg intramuscular rat TD (18 week(s)); 56 mg/kg intramuscular rat TDLo; 1250 mg/kg intrapleural rat TD (17 week(s)); 125 mg/kg intrapleural rat TD (21 week(s)); 100 mg/kg intrapleural rat TDLo (21 week(s)); 40 mg/kg parenteral rat TDLo (52 week(s)); 3000 mg/kg subcutaneous rat TDLo (6 week(s))

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RTECS Mutagenic

The components of this material have been reviewed, and RTECS publishes the following endpoints:

TUNGSTEN CARBIDE (12070-12-1)

micronucleus test human leukocyte 50 mg/L; DNA damage human leukocyte 10 mg/L

COBALT (7440-48-4)

DNA damage human leukocyte 3 mg/L; micronucleus test human leukocyte 600 ug/L; micronucleus test human leukocyte 0.6 mg/L/15 minute(s)

NICKEL (7440-02-0)

morphological transformation hamster kidney 400 mg/L; morphological transformation hamster embryo 5 umol/L

MOLYBDENUM (7439-98-7)

cytogenetic analysis rat inhalation 19500 ug/m3

CAPRIC ACID (334-48-5)

sex chromosome loss and non disjunction Saccharomyces cerevisiae 14500 ppb

RTECS Reproductive Effects

The components of this material have been reviewed, and RTECS publishes the following endpoints:

TUNGSTEN (7440-33-7)

1160 ug/kg oral rat TDLo (pre pregnancy 30 week(s), pregnant female 1-20 day(s), continuous); 1210 ug/kg oral rat TDLo (pre pregnancy 35 week(s), continuous)

NICKEL (7440-02-0)

158 mg/kg oral rat TDLo (multigenerations)

MOLYBDENUM (7439-98-7)

448 mg/kg oral mouse TDLo (multigenerations); 5800 ug/kg oral rat TDLo (pre pregnancy 30 week(s), pregnant female 1-20 day(s), continuous); 6050 ug/kg oral rat TDLo (pre pregnancy 35 week(s), continuous)

Additional Data

May cross the placenta. Alcohol may enhance the toxic effects. May cross the placenta. May be excreted in breast milk.

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*** Section 12 - ECOLOGICAL INFORMATION ***

Component Analysis - Aquatic Toxicity

COBALT (7440-48-4)

Fish: 96 Hr LC50 Brachydanio rerio: >100 mg/L [static]

NICKEL (7440-02-0)

Fish: 96 Hr LC50 Brachydanio rerio: >100 mg/L; 96 Hr LC50 Cyprinus carpio: 1.3 mg/L [semi-static]; 96 Hr LC50 Cyprinus carpio: 10.4 mg/L [static]

Algae: 72 Hr EC50 Pseudokirchneriella subcapitata: 0.18 mg/L; 96 Hr EC50 Pseudokirchneriella subcapitata: 0.174 - 0.311 mg/L [static]

Invertebrate: 48 Hr EC50 Daphnia magna: >100 mg/L; 48 Hr EC50 Daphnia magna: 1 mg/L [Static]

CAPRIC ACID (334-48-5)

Fish: 96 Hr LC50 Oryzias latipes: 54 mg/L [semi-static]

Invertebrate: 24 Hr EC50 Daphnia magna: 65 mg/L

*** Section 13 - DISPOSAL CONSIDERATIONS ***

Disposal Methods

Dispose in accordance with all applicable regulations. Hazardous Waste Number(s): D007. Dispose of in accordance with U.S. EPA 40 CFR 262 for concentrations at or above the Regulatory level. Regulatory level- 5.0 mg/L.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

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*** Section 14 - TRANSPORT INFORMATION ***

US DOT Information

No Classification assigned.

TDG Information

No Classification assigned.

*** Section 15 - REGULATORY INFORMATION ***

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

COBALT (7440-48-4)

SARA 313: 0.1 % de minimis concentration

NICKEL (7440-02-0)

SARA 313: 0.1 % de minimis concentration

CERCLA: 100 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is larger than 100 micrometers); 45.4 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is larger than 100 micrometers)

SARA 311/312

Acute Health: Yes **Chronic Health:** Yes **Fire:** Yes **Pressure:** No **Reactive:** No

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U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
TUNGSTEN CARBIDE (¹related to: Tungsten compounds, n.o.s.)	12070-12-1	Yes¹	No	Yes¹	Yes	No	No
COBALT	7440-48-4	Yes	Yes	Yes	Yes	Yes	Yes
TUNGSTEN	7440-33-7	Yes	Yes	Yes	Yes	Yes	Yes
NICKEL	7440-02-0	Yes	Yes	Yes	Yes	Yes	Yes
CHROMIUM CARBIDE (¹related to: Chromium compounds)	12012-35-0	Yes¹	No	No	Yes¹	Yes¹	No
MOLYBDENUM	7439-98-7	Yes	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

Canada WHMIS

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

TUNGSTEN CARBIDE (12070-12-1)

1 %

COBALT (7440-48-4)

0.1 %

TUNGSTEN (7440-33-7)

1 %

NICKEL (7440-02-0)

0.1 %

MOLYBDENUM (7439-98-7)

1 %

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Component Analysis - Inventory

Component	CAS	US	CA	EU	AU	PH	JP	KR	CN	NZ
TUNGSTEN CARBIDE	12070-12-1	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
TITANIUM CARBIDE	12070-08-5	Yes	DSL	EIN	No	No	Yes	Yes	Yes	Yes
TANTALUM CARBIDE	12070-06-3	Yes	DSL	EIN	No	No	Yes	Yes	No	No
COBALT	7440-48-4	Yes	DSL	EIN	Yes	Yes	No	Yes	Yes	Yes
TUNGSTEN	7440-33-7	Yes	DSL	EIN	Yes	Yes	No	Yes	Yes	Yes
NICKEL	7440-02-0	Yes	DSL	EIN	Yes	Yes	No	Yes	Yes	Yes
NIOBIUM CARBIDE	12069-94-2	Yes	DSL	EIN	No	No	Yes	Yes	No	No
CHROMIUM CARBIDE	12012-35-0	Yes	DSL	EIN	Yes	No	Yes	Yes	Yes	No
MOLYBDENUM	7439-98-7	Yes	DSL	EIN	Yes	Yes	No	Yes	Yes	Yes
CAPRIC ACID	334-48-5	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
BEESWAX	8012-89-3	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes

*** Section 16 - OTHER INFORMATION ***

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

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Other Information

NOTICE: The above information while believed to be correct does not purport to be complete or all inclusive and shall be used only as a guide. Neither Alldyne Powder Technologies nor any of its parent corporations or affiliates shall be held liable for any damage resulting from any omission or from handling or from contact with the above product. Any technical comments or questions should be directed to the Director of Safety and Environment at (256) 721-4118.

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