Safety Data Sheet W.R. Cobb

1. Supplier and Manufacturer

W.R. Cobb

800 Waterman Avenue
East Providence, R.I. 02914
Emergency Telephone Number 401-467-7400
Product codes: Bag 7 (Braze 560) Bag 9 (Braze 650) Bag 10 (Braze 700) 750 (Braze 750)
Product Use(s): Alloys for brazing and other metallurgical processes.

2. Hazards Identification

Classification(s)

Acute Toxicity, Inhalation: Hazard Category 3 Carcinogenicity: Hazard Category 1 Reproductive Toxicity: Hazard Category 2 Germ Cell Mutagenicity: Hazard category 2

Label Symbol (s):

Health Hazard, Exclamation Point

Label Signal Word (s):

Warning

Label Hazard Statement(s):

May cause respiratory irritation, May cause an allergic skin reaction, Suspected of causing cancer by inhalation.

Label Precautionary Statement(s)

Do not handle until all safety precautions have been read and understood, Obtain special instructions before use, Avoid breathing dust or fumes. Use only outdoors or in a well-ventilated area, Store locked up, Wear protective gloves and eye/face protection.
If skin irritation or rash occurs, get medical advice or attention. If exposed or concerned, get medical advice/attention.
IF ON SKIN: Wash with plenty of water, Wash contaminated clothing before reuse, contaminated work clothing must not be allowed out of the workplace.
IF INHALED: Remove person to fresh air and keep comfortable for breathing, Call a Poison Control Center or Doctor if you feel unwell.
Dispose of contents and container in accordance with applicable regulations, 21-97% of the product consists of ingredient(s) of unknown acute toxicity.

Warning: These products contain a chemical(s) known to the state of California to cause cancer.

3. Composition/information on ingredients

Ingredient	CAS Number	%wt.	Impurities
Copper	**7440-50-8**	**19-95**	**none known**
Silver	**7440-22-4**	**1-55**	**none known**
Zinc	**7440-66-6**	**2-44**	**none known**
Nickel	**7440-02-0**	**1-24**	**none known**

4. First Aid Measures

Eye

Flush affected areas with water for at least 15 minutes, seek medical attention if necessary.

Skin

Remove contaminated clothing; wash affected area with large quantities of water for at least 5 minutes. Seek medical attention if necessary.
Launder or dry-clean clothing before reuse.

Ingestion

If subject is conscious, induce vomiting. If unconscious or convulsive, seek medical attention. Do not give anything by mouth to an unconscious or convulsive person.

Inhalation

If signs and symptoms of toxicity are observed, remove subject from area, administer oxygen, and seek medical attention. Keep the subject warm and at rest. Perform artificial respiration if breathing has stopped.

Note to Physician

None of the components are acutely toxic by ingestion, nor are they absorbed through the skin. Extensive or prolonged skin contact may cause dermatitis and/or agrarian. Inhalation of cadmium fume may cause severe respiratory illness.

5. Firefighting Measures

Fire and Explosion Hazards

These products are non-flammable and non-explosive. If present in a fire or explosion, they may emit fumes of the constituent metals of other oxides.

Extinguishing Media

Use dry chemical, do not use water.

Fire Fighting Instructions

If fighting a fire in which these products are present, wear a self-contained breathing apparatus with full face piece operated in pressure-demand or other positive pressure mode.

6. Accidental Release measures

Methods and Materials

If a finely-divided form of product is spilled, clean up spillage so as to minimize dispersion of dust. Either wet sweeping or vacuuming using HEPA filtration is recommended.

Personal Precautions

Avoid contact with skin, eyes, and mucous membranes.

Environmental Precautions

Prevent spills from entering sewers or contaminating soil.

7. Handling and Storage

No special handling precautions are required.

Work and hygiene practices

To prevent ingestion following use of this product, wash hands and face before eating, applying cosmetics, or using tobacco. Remove contaminated clothing or protective equipment before entering eating/drinking areas

Storage Precautions

Do not store in proximity to incompatible materials (see section #10)

8. Exposure controls/personal protection

Ingredients – Exposure Limits

Copper

ACGIH TLVs: 0.2 mg/m3 TWA (fume); 1 mg/m3 TWA (dusts and mists) OSHA PELs: 0.1 mg/m3 TWA (fume) ; 1 mg/m3 TWA (dusts and mists)

Nickel

ACGIH TLV 1.5 mg/m3 OSHA PEL: 1 mg/m3 TWA

Silver

ACGIH TLV: 0.1 mg/m3 TWA (metal) OSHA PEL; 0.01 mg/m3 TWA

Zinc

ACGIH TLVs (as Zn0): 2 mg/m3 TWA; 10 mg/m3 STEL (respirable fractions) OSHA PEL: 5 mg/m3 TWA (as respirable fraction of Zn0 dust or fume)

Ingredients- Biological limits

Copper

No ACGIH BEI(s) or other biological limit(s)

Nickel

No ACGIH BIE(s) or other biological limit(s)

Silver

No ACGIH BIE(s) or other biological limit(s)

Engineering Controls

Use appropriate local exhaust ventilation adequate to maintain concentrations of all components and their byproducts to within their applicable standards.

Eye/Face Protection

Wear eye protection adequate to prevent eye contact with finely-divided product and eye injury if the products are used with a flame. Plastic-frame spectacles with side shields and filter lenses (shade #3 / #4) are recommended.

Skin Protection

Wear appropriate protective gloves and clothing to prevent skin injury, if the products are used with a flame and/or for prolonged or repeated contact with finely-divided forms of product. Avoid flammable fabrics.

Respiratory Protection

If an exposure level to a component(s) exceeds an applicable standard, use a NIOSH-approved respirator having a configuration (face piece, filter media, assigned protection factor, etc.) effective for the concentration of the component(s) generated. For guidance on selection and use of respirators, consult American National Standard Z88.2 (ANSI, New York, NY 10036, (USA)

9. Physical and Chemical Properties

Appearance: light yellow metals, various forms: **Odor:** none. **Odor threshold**: not applicable pH: not applicable.

Melting point: >1220F/660C.

Freezing point: not applicable

Boiling Point/Boiling Range: not determined **Flash Point**: not applicable **Evaporation Rate**: not applicable **Flammability Class**: not applicable **Lower Exposure Limit**: not applicable **Upper Explosive Limit**: not applicable **Vapor Pressure**: not applicable **Vapor Density**: not applicable **Relative Density (H20):** approx. .0 **Solubility (H20)**: insoluble oil-water partition coefficient: not applicable. **Auto- Ignition Point**: not applicable **Decomposition temperature**: not applicable. **Viscosity**: not applicable.

10.Stability and Reactivity

Reactivity: none reasonably foreseeable **Stability**: stable **Hazardous Polymerization**: will not occur

Risk of Dangerous Reactions: See "Conditions to avoid"

Conditions to Avoid: Silver and copper can form unstable acetylides in contact with acetylene gas.

Incompatible Materials

Acetylene; ammonia; azides; nitric acid; halogens; ethylene imine; ethylene oxide; chlorine trifloride; sulfuric acid; peroxides; peroxyformic acid, oxalic acid; tartaric acid, 1-bromo-2-propyne; permonosulfuric acid; hydrogen sulfide; hydrazine mononitrate; hydrazoic acid; bromates, chlorates, and alkali and alkali earth metals; hydroxylamine; selenium; carbon disulfide; ammonium nitrate; hydrazoic acid; tellurium.

Hazardous Decomposition Products

Heating to elevated temperatures may liberate metal/metal oxide fumes.

11.Toxicological Information

This product has not been subject to toxicological testing by the supplier/ manufacturer. Ingredients Toxicological Data

Copper; LD50: No data available

Nickel; LD 50: 5,000 mg/kg (oral/rat) LC50: No data available

Silver; LD 50: > 2,000 mg/kg (oral/rat) LC50: No data available

Zinc; LD50: No data available LC50: No data

Primary Routes of Entry

Ingestion; Inhalation

Eye Hazards

Eye contact with these products in finely-divided forms may cause irritation, conjunctivitis, ulceration of the cornea, and /or argyria, a permanent grey discoloration of the eyes, skin, mucous membranes, and respiratory tract.

Skin Hazards

Skin contact with these products, particularly in finely-divided forms, may cause irritation, argyria, discoloration, and/or contact dermatitis.

Ingestion Hazards

Ingestion of these products in finely-divided forms my cause nausea, vomiting, and gastrointestinal irritation.

Inhalation Hazards

Inhalation of toxicologically-significant quantities of the components is unlikely when the product is used in accordance with instructions and specified protective measures (see section #8)

Symptoms related to overexposure

Pre-existing pulmonary diseases (e.g. bronchitis, asthma) may be aggravated by inhalation overexposure, particularly as fume.

Delayed effects from long term exposure

Chronic overexposure by inhalation and/or ingestion may aggravate pre-existing diseases of the liver, kidneys, and gastrointestinal system.

Carcinogenicity

Nickel is classified as a potential human carcinogen by IARC ("2b", possibly carcinogenic to humans) and NTP ("K" known to be a human carcinogen). Exposure to some compounds of nickel has been shown to increase the risk of various cancers, although these effects have not been demonstrated among individuals occupationally exposed only to nickel metal. ACGIH classifies nickel metal as "A5" (not suspected as a human carcinogen)

Germ Cell Mutagenicity

Cadmium has produced mutagenic responses in mammalian cell cultures.

Reproductive Effects

This product contains no chemicals determined to be damaged to fertility of unborn child.

Acute Toxicity Estimates

LD50 (oral): >2,000 mg/kg
LD50 (dermal): no data available
LD50: no data available

Interactive Effects of Components: no data available

12.Ecological Information

No ecological data is available for this product. Available ecological data for the components is as follows:

Copper

No data available for Aquatic Toxicity to Fish and Invertebrates, Aquatic Toxicity to Plants and Microorganisms, Toxicity to Terrestrial Organisms, Persistence and Degradability, Bioaccumulation Potential, Mobility and Soil.

Silver

No data available for Aquatic Toxicity to Fish and Invertebrates, Aquatic Toxicity to Plants and Microorganisms, Toxicity to Terrestrial Organisms, Persistence and Degradability, Bioaccumulation Potential, Mobility in Soil.

Nickel

Aquatic Toxicity: LC50 > 100mg/liter for 4 d. (freshwater fish) Aquatic Toxicity: EC50 > 100 mg/liter for 48 hours. (Daphnia) Aquatic Toxicity: EC50 =0.18 mg/liter for 3 d. (Algae) No data available for Toxicity to Terrestrial Organisms, Persistence and Degradability, Bioaccumulation Potential, or Mobility in soil.

Zinc

No data available for Aquatic Toxicity to Fish and Invertebrates, Aquatic Toxicity to Plants and Microorganisms, Toxicity to Terrestrial Organisms, Persistence and Degradability, Bioaccumulation Potential, Mobility in Soil.

Ozone Depletion Potential:

This product contains no ingredients listed in the Annexes to the Montreal Protocol on Substances that Deplete the Ozone Layer.

13.Disposal Considerations

Do not discharge waste product into sanitary or storm sewers or allow it to contaminate soil. Consult applicable Federal, State/Provincial, and local regulations.

14.Transport Information

Transport is not regulated by USDOT, TDG (Canada), IATA, or IMO

15. Regulatory Information

United States Regulatory Information

All components of this product are listed on the EPA's TSCA inventory. SARA Hazard Classes: Acute Health Hazard; Chronic Health Hazard.

SARA Section 313 Notification

These products contain these ingredients in concentrations greater than 1% (for carcinogens 0.1%) regulated under section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 or 40 CFR 372.

Copper (CASRN 7440-50-8)

Nickel elemental (CASRN 7440-02-0)

Silver (CASRN 7440-22-4)

Ingredient(s) – State Regulations

Cadmium: California Proposition 65 listed chemical

Canadian Regulatory Information

All components of these products are listed on either the Domestic Substances List (DSL) or the nondomestic Substance List (NDSL)

WHMIS Class (es) and Division(s): D1A, D2A, D2B Component(s) on Ingredients Disclosure List:

Nickel, elemental (CASRN 7440-02-0)

Copper, elemental (CASRN 7440-50—8)

Silver, elemental (CASRN 7440-22-4)

This product has been classified according to the hazard criteria of the CPR and this SDS contains all of the information required by the CPR.

16. Other information including information on preparation and revision of the SDS

HMIS Ratings

Health -2*(serious chronic hazard) Flammability – 1 (slight hazard) Physical Hazard – 1 (minimal hazard) PPE – see note.

Note: W.R. Cobb recommends use or protective eyewear and gloves (Personal Protective Index "B") as standard PPE.

HMIS recommends that its ratings be used only in conjunction with a fully implemented HMIS program, and that specific PPE codes be created by the user, who is familiar with the actual conditions under which the product is used. We cannot anticipate every condition of the products use, and it's the user's responsibility to evaluate the hazards pertinent to its specific operations, and to determine the specific PPE required.

NFPA Ratings

Health-3 Flammability -1 Reactivity -1

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Disclaimer

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