



MEDALLOY 77 Braze Preform

Safety Data Sheet

Date of issue: 10/16/2020

Version: 1.1

SECTION 1: Identification

Product Name: **Medalloy 77**
SDS Issue Date: October 16, 2020
Synonyms: AWS A5.8 BNi-2, AMS 4777
CAS Number(s): See section 3
Product Usage: Brazing Filler Metal Preform Rings

Manufacturer: Phoenix Alloy Solutions, LLC
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Transportation Emergency Number: CHEMTREC 800-424-9300

SECTION 2: Hazard(s) Identification

Classification:

Sensitization – Skin	Category 1	H317
Carcinogenicity	Category 2	H351
Specific target organ toxicity – Repeated exposure	Category 1	H372

Labelling:

Hazard pictograms (CLP):



GHS07



GHS08

Signal word (CLP):

Danger

Hazardous ingredients:

nickel, cobalt

Hazard statements (CLP):

H317 - May cause an allergic skin reaction

H351 - Suspected of causing cancer (if inhaled)

H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary statements (CLP):

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P260 - Do not breathe dust, fume

P264 - Wash hands thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P272 - Contaminated work clothing should not be allowed out of the workplace

Child-resistant fastening:

No

Tactile warning:

No

Other Hazards:

Adverse physicochemical, human health and environmental effects:

Suspected of causing cancer. Causes damage to organs through prolong exposure. May cause an allergic skin reaction

Other hazards not contributing to the classification: None under normal conditions

SECTION 3: Composition / Information on Ingredients

Components*	CAS Number	Weight %**
Nickel	7440-02-0	60 - 100
Chromium	7440-47-3	5 – 10
Boron	7440-42-8	1 – 5
Iron	7439-89-6	1 – 5
Silicon	7440-21-3	3 - 7

*This material is a homogenous metallic alloy of the components listed above.

**This is a general reporting range and is not a product specification.

Exposure limits: See Section 8

SECTION 4: First Aid Measures

Exposure Route	Acute	Chronic (delayed)
Eye contact	Eye irritation. Flush with water for 15 minutes or until all particles are removed.	If irritation persists, seek medical attention.
Skin contact	Itching, irritation or rash. Remove contaminated clothing. Wash skin with mild soap and water.	If irritation or rash persists, seek medical attention.
Inhalation	Difficulty breathing, coughing, metal fume fever. Remove exposed person to fresh air. If not breathing administer CPR.	If symptoms persist, seek medical attention.
Ingestion	Rinse mouth. If large amounts, induce vomiting. Seek medical advice.	Seek medical attention.

Never give anything by mouth to an unconscious person. Treat symptomatically and supportively.

SECTION 5: Firefighting Measures

Suitable Extinguishing Media: Material is not readily combustible. Do not use water on metal fires, use dry chemical, dry sand or carbon dioxide to smother fire.

Specific Hazards during a Fire: Material may break down in fire and may produce toxic decomposition products associated with ingredients. Extreme oxidizing conditions may cause formation of metal oxides. These oxides may be carcinogens.

Protective Equipment: SCBA and full protective gear is recommended for firefighting.

SECTION 6: Accidental Release Measures

- Stay out of spill, floor may be slippery.
- Do not create airborne dust.
- Do not allow spill to enter floor drains or storm drains.
- Wear PPE: Respirator and Safety Goggles.

- Take up with damp sweeping compound or vacuum. Vacuum should be equipped with HEPA filter on exhaust. Transfer into disposal container(s). Dispose by recycling.
- A spill of greater than 45.4 kg (Nickel RQ 100 lbs. <106µm) which enters the environment requires reporting per OSHA CFR Title 40 Part 372.4 CERCLA hazardous substance release.
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SECTION 7: Handling and Storage

- General and/or point ventilation system with dust collection is recommended to ensure exposure to airborne dust is maintained below allowable exposure limits.
- Wear PPE such as work gloves (or vinyl/latex gloves), safety glasses/goggles. Respiratory protection is recommended but is required only when exposure limits are exceeded.
- Wash hands after use before eating or smoking.
- Do not eat or smoke in area where material is being used.
- Store in tightly closed container. For best results, keep product above the ambient dew point temperature.
- Not a shelf life limited material.

SECTION 8: Exposure Controls / Personal Protection

Exposure Limits:

Components	CAS Number	OSHA PEL	ACGIH TLV
Nickel	7440-02-0	1.0 mg/m ³	1.5 mg/m ³
Chromium	7440-47-3	1.0 mg/m ³	0.5 mg/m ³
Boron	7440-42-8	15 mg/m ³ (5 mg/m ³ respirable)	10 mg/m ³ as boron oxide
Iron	7439-89-6	10 mg/m ³ as oxide fume	5 mg/m ³ as respirable oxide
Silicon	7440-21-3	15 mg/m ³ (5 mg/m ³ respirable)	Not listed

Engineering Controls:

- Local exhaust ventilation may be necessary to control air contaminants to their exposure limits.
- Provide mechanical ventilation for confined spaces or if method of use warrants.

Personal Protective Equipment:

- Gloves – work gloves or non-permeable gloves such as vinyl or latex.
- Eyes – safety glasses/goggles or face shield.
- Clothing – Cover-all, lab coat or normal work clothing.
- Respirator – NIOSH N-95 or N-100 filtering face-piece (dust mask) or equivalent alternative is recommended for up to 10 times the exposure limits.

SECTION 9: Physical and Chemical Properties

Physical state :	Solid
Appearance :	Silver-gray alloy. Metallic wire, rod, strip, paste, powder.
Color :	Silver.
Odor :	Odorless.
Odor threshold :	No data available
pH :	No data available
Relative evaporation rate (butyl acetate=1) :	No data available
Melting point :	No data available
Freezing point :	Not applicable
Boiling point :	No data available
Flash point :	Not applicable
Auto-ignition temperature :	Not applicable

Decomposition temperature :	No data available
Flammability (solid, gas) :	Nonflammable
Vapor pressure :	No data available
Relative vapor density at 20 °C :	No data available
Relative density :	Not applicable
Solubility :	insoluble in water.
Log Pow :	No data available
Viscosity, kinematic :	Not applicable
Viscosity, dynamic :	No data available
Explosive properties :	Product is not explosive.
Oxidizing properties :	Oxidizing solids Not applicable.

SECTION 10: Stability and Reactivity

Reactivity:	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability:	Stable under normal conditions.
Possibility of hazardous reactions:	No dangerous reactions known under normal conditions of use.
Conditions to avoid:	None under recommended storage and handling conditions (see section 7).
Incompatible materials:	Acetylene, ammonia, ammonium nitrate, aqua regia, dioxane, ethylene oxide, chlorine trifluoride, halogens, hydrogen peroxide, hydrazine, hydrazine, mononitrate, hydrazoic acid, hydroxylamine, hydrogen sulfide, performic acid, phosphorus, selenium, sulfur, titanium plus potassium chlorate. Bromates, chlorates and iodates of alkali and alkali earth metals.
Hazardous decomposition products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

Acute toxicity :	Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation :	Not classified (Based on available data, the classification criteria are not met) Contact dermatitis may result from direct exposure to the skin.
Serious eye damage/irritation :	Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitization :	May cause an allergic skin reaction. Long-term exposure to brazing fume, gasses, or dust may contribute to pulmonary irritation or pneumoconiosis.
Germ cell mutagenicity :	Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity :	Suspected of causing cancer (if inhaled).
Reproductive toxicity :	Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (single exposure) :	Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (repeated exposure):	Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard :	Not classified (Based on available data, the classification criteria are not met)
Potential adverse human health effects and symptoms:	May cause cancer.
IARC group :	2B
Other information :	Likely routes of exposure: inhalation.

SECTION 12: Ecological information

Toxicity

Ecology - general:	The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Ecology - water:	The product does not have any known adverse effect on the tested aquatic organisms.
Persistence and degradability:	The product is not biodegradable.
Bio accumulative potential:	Not established.
Mobility in soil	
Ecology – soil:	Not established.
Results of PBT and vPvB assessment:	No additional information available
Other adverse effects	
Other adverse effects:	None known.
Additional information:	Avoid release to the environment

SECTION 13: Disposal considerations

Waste treatment methods

Regional legislation (waste):	Disposal must be done according to official regulations.
Waste treatment methods:	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Waste disposal recommendations:	Dispose of contents/container to a hazardous or special waste collection point.

SECTION 14: Transportation information

DOT Classification:	Not regulated unless greater than 45.4 kg (100 lbs.) per inner container.
UN Identification Number (IMDG / IATA / DOT):	Not regulated unless greater than 45.4 kg (100 lbs.) per inner container.
Shipping Description:	Not applicable unless greater than 45.4 kg (100 lbs.) per inner container.

SECTION 15: Regulatory information

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

EU-Regulations:	Contains no REACH substances with Annex XVII restrictions Contains no substance on the REACH candidate list Contains no REACH Annex XIV substances
National regulations:	No additional information available
Chemical safety assessment:	No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:

Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Aquatic Chronic 4	Hazardous to the aquatic environment — Chronic Hazard, Category 4
Carc. 2	Carcinogenicity, Category 2
Flam. Sol. 1	Flammable solids, Category 1
Resp. Sens. 1	Sensitization — Respiratory, Category 1
Skin Sens. 1	Sensitization — Skin, Category 1
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
H228	Flammable solid
H317	May cause an allergic skin reaction
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H351	Suspected of causing cancer
H372	Causes damage to organs through prolonged or repeated exposure
H412	Harmful to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life

The information supplied herein follows the guidelines of WHMIS, GHS and OSHA Hazard Communication Standard 29 CFR 1910.1200, and to the best of our knowledge, is accurate and complete. The recommended hygiene and handling practices are believed to be appropriate for the use of this material. However, it is up to the end user to review this information and establish their own procedures and guidelines, based upon their application(s). Phoenix Alloy Solutions, LLC assumes no responsibility for damage or injury resulting from the end use of this product.