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Meets the Requirements of OSHA Standard 29 CFR 1910.1200 Hazard Communication and EPA Supplier Notification Requirements under Section 313 of the Emergency Planning and Community Right-to-Know Act.

SAFETY DATA SHEET (SDS)

ALUMINUM CASTINGS-800 SERIES

SDS SC-000-058 Rev. 12

DATE ISSUED

10/13

SECTION 1—PRODUCT IDENTIFICATION & COMPANY INFORMATION

PRODUCT NAME

ALUMINUM CASTINGS-800 SERIES

OTHER DESIGNATIONS: ASTM (American Society for Testing & Materials) Specification No's., (ACI (Alloy Casting Institute) Alloy Designations—Grades)

None

PRODUCT IDENTIFICATION (Label Identifier)

See Above

| MANUFACTURER'S NAME | STREET ADDRESS |
|--------------------------------------|----------------------------------------------------------|
| Meloon Foundries LLC | 1841 LeMoyne Ave |
| EMERGENCY TELEPHONE NO. 315-454-3231 | MAILING ADDRESS 1841 LeMoyne Ave |
| TELEPHONE NO. 315-454-3231 | CITY, STATE, ZIP CODE, COUNTRY Syracuse, NY 13208 USA |
| FAX NO. 315-454-8559 | E-MAIL ADDRESS/WEBSITE wendy@meloon.com / www.meloon.com |

RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE

Solid casting; no restrictions

SECTION 2—HAZARD IDENTIFICATION

CLASSIFICATION

Castings are metallic articles that do not present health hazards in their unaltered state.

OTHER HAZARDS

- 1. Grinding castings that have not been cleaned or that contain embedded sand may generate significant amounts of dust containing crystalline silica.
- 2. Fumes from hot processes may contain other compounds of these elements with different exposure limits than those listed above. Dust or fumes generated by machining, grinding, welding or thermal cutting of the casting may produce airborne contaminants. Consult Section 8 for further information.

SECTION 3—COMPOSITION/INFORMATION ON INGREDIENTS CHEMICAL NAME/COMMON NAME/SYNONYM Wt % **CAS NUMBER** Aluminum (Al) Balance 7429-90-5 0.7 - 6.4Copper (Cu) 7440-50-8 Magnesium (Mg) 0.10 - 0.901309-48-4 Nickel (Ni) 0.3 - 1.57440-02-0 Silicon (Si) 0.05 - 4.57440-21-3 Tin (Sn) 7440-31-5 5.5 - 7.0

| SECTION 4—FIRST AID MEASURES | | |
|------------------------------|-------------------------|--|
| EYE CONTACT: | Not applicable | |
| SKIN CONTACT: | No special requirements | |
| INGESTION: | Not applicable | |
| INHALATION: | Not applicable | |

SECTION 5—FIREFIGHTING MEASURES

FLAMMABLE PROPERTIES

Non-combustible as supplied. Small chips, fine turnings and dust from processing may be readily ignitable.

EXTINGUISHING MEDIA

Not applicable to metal castings. Use Class D extinguishing agents on fines, dust or molten metal. Use coarse water spray on chips and turnings. DO NOT USE halogenated extinguishing agents on small chips/fines.

PROTECTION OF FIREFIGHTERS: Not applicable

SECTION 6—ACCIDENTAL RELEASE MEASURES

Not applicable

SECTION 7—HANDLING & STORAGE

RECOMMENDED STORAGE

No special requirements

PROCEDURES FOR HANDLING

Proper hand and foot protection is recommended.

SECTION 8—EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS

None Required. There are no health hazards from castings in solid form.

| SUBSTANCE | ACGIH TLV mg/m³ | OSHA PEL mg/m³ |
|-------------------------|--------------------|-------------------|
| Aluminum (as Al) | | |
| Total Dust | N/E | 15 |
| Respirable Dust | 1 (R) | 5 |
| Copper (as Cu) | | |
| Fume | 0.2 | 0.1 |
| Dust and Mist | 1 | 1 |
| Magnesium (as Mg) | N/E | N/E |
| Nickel (Ni) | 1.5 (I) | 1 |
| Silicon (Metal) (as Si) | | |
| Total Dust | N/E | 15 |
| Respirable Dust | N/E | 5 |
| Tin (metal as SN) | 2 | 2 |

SUPPLEMENTAL INFORMATION

Grinding castings that have not been cleaned or that contain embedded sand may generate significant amounts of dust containing crystalline silica.

Fumes from hot processes may contain other compounds of these elements with different exposure limits than those listed above. Dust or fumes generated by machining, grinding, welding or thermal cutting of the casting may produce airborne contaminants. Exposure limits for the most common contaminants are offered as reference. Please consult a competent person for guidance on exposure assessment and controls.

| SUBSTANCE | ACGIH TLV mg/m³ | OSHA PEL mg/m³ |
|-----------------------------|--------------------|-------------------|
| Aluminum oxide | | |
| Total Dust | N/E | 15 |
| Respirable Dust | N/E | 5 |
| Magnesium oxide | 10 (I) | 15 |
| Nickel compounds (as Ni) | | |
| Nickel, Insoluble compounds | 0.2 (I) | 1 |
| Nickel, Soluble compounds | 0.1 (I) | 1 |
| Nickel oxide | 0.2 (I) | 1 |
| Tin oxide | N/E | 2 |

TERMS

All exposure limits referenced above are 8 hour time weighted averages (TWA) unless otherwise noted.

None Established

Ceiling C =

Inhalable fraction I = R= Respirable fraction

TLV = Threshold Limit Value/ACGIH (American Conference of Industrial Hygienists) Permissible Exposure Limit/OSHA (Occupational Safety & Health Administration) PEL =

STEL = Short Term Exposure Limit mg/m³ = milligrams per cubic meter

PERSONAL PROTECTION

Proper hand and foot protection is recommended.

SECTION 9—PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE

| Solid, silver color | |
|--------------------------------------|------------------------------------------|
| ODOR/ODOR THRESHOLD | VAPOR DENSITY |
| None | Not applicable |
| MELTING POINT/FREEZING POINT | SPECIFIC GRAVITY (relative density) |
| Approximately 488-646°C (910-1195°F) | 2.56–2.64 g/cm ³ for aluminum |
| BOILING POINT | VAPOR PRESSURE |
| 2326°C (4220°F) for aluminum | Not applicable |
| FLASH POINT | EVAPORATION RATE |
| Not applicable for solid castings | Not applicable |
| FLAMMABILITY | SOLUBILITY IN WATER |
| Not flammable | Insoluble |
| UPPER AND LOWER FLAMMABILITY LIMITS | pH |
| Not applicable for solid castings | Not applicable |
| AUTO IGNITION TEMPERATURE | VISCOSITY |
| Not applicable | Not applicable |
| DECOMPOSITION TEMPERATURE | PARTITION COEFFICIENT |
| Not applicable | Not applicable |

SECTION 10—STABILITY & REACTIVITY

CHEMICAL STABILITY

Stable as shipped

CONDITIONS TO AVOID

Not applicable to castings. Fine metal dust or powder produced by grinding or polishing aluminum metal can burn or explode and must be protected from ignition sources such as grinding sparks, etc.

| REACTIVITY Castings are not reactive. Under some conditions metal chips, fines and dust may be incompatible with water, halogenated solvents, strong oxidizers, acids and alkalis, and iron oxide and may ignite or explode. | Not applicable to castings. |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| HAZARDOUS DECOMPOSITION PRODUCTS None | POSSIBILITY OF HAZARDOUS REACTIONS Not applicable to castings |

SECTION 11—TOXICOLOGICAL INFORMATION

| POTENTIAL HE | EALTH EFFECTS |
|--------------|---------------|
| EYE CONTACT | : None |
| SKIN: | None |
| INGESTION: | None |
| INHALATION: | None |

| Carcinogen Classification of Ingredients | | | | |
|------------------------------------------|------|-----|------|--------------|
| INGREDIENT | OSHA | NTP | IARC | TARGET ORGAN |
| Chromium (metal) | NL | NL | 3 | Lung Nood |
| Chromium VI, (hexavalent) | Y | K | 1 | Lung, Nasal |
| Nickel, Insoluble compounds as Ni | NL | K | NL | |
| Nickel, Soluble compounds as Ni | NL | K | NL | Lung, Nasal |
| Nickel, Elemental | NL | R | 2B | |

TERMS

OSHA—Occupational Safety & Health Administration

Y = Listed as a Human Carcinogen

NTP—National Toxicology Program

K = Known to be a Human Carcinogen

R = Reasonably Anticipated to be a Human Carcinogen (RAHC)

IARC—International Agency for Research on Cancer

1 = Carcinogen to Humans

2A = Probably Carcinogenic to Humans

2B = Possibly Carcinogenic to Humans

3 = Unclassifiable as to Carcinogenicity in Humans

4 = Probably not Carcinogenic to Humans

Other

NL = Not Listed

| SECTION 12—ECOLOGICAL INFORMATION | | |
|-----------------------------------|-------------------------------|--|
| ECOTOXICITY | PERSISTENCE AND DEGRADABILITY | |
| Not applicable Not applicable | | |
| BIOACCUMULATION POTENTIAL | MOBILITY IN SOIL | |
| Not applicable | Not applicable | |

OTHER ADVERSE EFFECTS

Not applicable

SECTION 13—DISPOSAL CONSIDER ATIONS

Recover or recycle if possible. Dispose of according to federal, state and local regulations. Dust collected from machining, welding, etc. may be classified as a hazardous waste. Consult federal, state and local regulations.

| SECTION 14—TRANSPORT INFORMATION | | |
|-------------------------------------------|--------------------------------------------------|--|
| US DEPARTMENT OF TRANSPORTATION (DOT)-HMR | CANADIAN TRANSPORTATION OF DANGEROUS GOODS (TDG) | |
| Not Regulated | Not regulated | |
| UN SHIPPING NAME | UN NUMBER | |
| Not regulated | Not regulated | |
| TRANSPORT HAZARD CLASS | PACKING GROUP | |
| Not regulated | Not regulated | |
| ENVIRONMENTAL HAZARDS | LABEL(S) REQUIRED? | |
| None | No | |
| TRANSPORT IN BULK | SPECIAL SHIPPING INFORMATION | |
| Not applicable | Not applicable | |

SECTION 15—REGULATORY INFORMATION

USA-OSHA (Hazard Communication Standard):

Reference 29 CFR 1910.1200 and 1910.1000. A finished casting is an article as defined in the OSHA Hazard Communication Standard 29CFR 1910.1200 (c). Dust or fumes generated by cleaning, machining, grinding, or welding of the casting may produce airborne contaminants, such as aluminum dust, aluminum oxide, copper, magnesium oxide, nickel, silicon, tin and silica.

USA-EPA (Toxic Substances Control Act-TSCA)

All components of these products are on the TSCA inventory list or are excluded from listing.

USA-EPA (SARA Title III)

Releases to the environment of Copper, Nickel and Aluminum (dust or fume only), may be subject to reporting under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

CANADA-WHMIS (Workplace Hazardous Materials Information System)

This SDS has been prepared according to the hazard criteria of the Controlled Product Regulations (CPR) and the SDS contains the information required by the CPR.

CANADIAN DSL (Domestic Substance List) Inventory Status

All components of these products are on the DSL Inventory.

CEPA (Canadian Environmental Protection Act)

Nickel is on the CEPA Priorities Substances Lists.

EINECS No. (European Inventory of Existing Commercial Chemical Substances)

All components of these products are on the EINECS list.

RoHS (Restriction of Certain Hazardous Substances) Compliance

Castings comply with RoHS

CALIFORNIA PROPOSITION 65 Compliance

WARNING: This product contains or produces chemicals known to the State of California to cause cancer and birth defects (or other reproductive harm). (California Health & Safety Code 25248.5 et seq.)

U.S. STATE REGULATORY INFORMATION

Some of the components listed in Section 3 may be covered under specific state regulations.

| SECTION 16—OTHER INFORMATION | | |
|-----------------------------------------------|-------|--|
| SDS SHEET PREPARED BY | DATE | |
| American Foundry Society, Inc. | 10/13 | |
| Occupational Safety & Health Committee (10-Q) | | |

NOTE

This data and label information is offered in good faith as typical values and not as a product specification. No warranty either expressed or implied is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review the recommendations in specific context of the intended use and determine if they are appropriate.

Addendum: Label Information

PRODUCT IDENTIFIER

SC-000-058 Rev. 12 ALUMINUM CASTINGS-800 SERIES

| SUPPLIER IDENTIFICATION | HAZARD PICTOGRAMS |
|-------------------------------------|-------------------|
| Company Name_Meloon Foundries LLC | None* |
| Street Address1841 LeMoyne Ave | |
| Mailing Address 1841 LeMoyne Ave | SIGNAL WORD |
| City Syracuse State NY | None* |
| Zip/Postal Code 13208 Country USA | |
| Emergency Phone Number 315-454-3231 | |
| Other Info | |
| | |
| PRECAUTIONARY STATEMENTS | HAZARD STATEMENTS |
| None* | None* |
| | |

OTHER INFORMATION

- 1. Grinding castings that have not been cleaned or that contain embedded sand may generate significant amounts of dust containing crystalline silica.
- 2. Fumes from hot processes may contain other compounds with different exposure limits. Dust or fumes generated by machining, grinding, welding or thermal cutting of the casting may produce airborne contaminants. Consult Sections 3 & 8 of the SDS for further information.

^{*}Castings do not present hazards in their original form.