

REVISION DATE: July 13, 2017

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 2605 (Cartridge Brass)

210 (Gilding Metal 210)
 226 (Commercial Bronze 226)
 240 (Low Brass 240)
 272 (Yellow Brass 272)

260 (Cartridge Brass)
 220 (Commercial Bronze 220)
 230 (Red Brass 230)
 268 (Yellow Brass 268)
 280 (Yellow Brass 272)

2605 (Cartridge Brass 70-30)

260 (Cartridge Brass 70-30)

SYNONYMS:

210 (Gilding Metal 95-5)
 226 (Commercial Bronze 90-10)
 240 (Low Brass 80-20)
 272 (Yellow Brass 63 1/2)

220 (Commercial Bronze 90-10)
 230 (Red Brass 85-15)
 268 (Yellow Brass 66-34)
 280 (Yellow Brass 63 1/2)

CHEMICAL FAMILY: Copper-Zinc Alloy

GENERIC NAME: Binary Brass

CAS NO: None

MANUFACTURER: Aurubis Buffalo, Inc.

ADDRESS: 70 Sayre Street
 PO Box 981
 Buffalo, NY 14240

IMPORTANT: Read this SDS before handling or disposing of this product and pass this information on to employees or users of this product. Where modification of any kind is made to this product prior to resale, the modifying party or the reselling party must generate their own SDS for their customers.

EMERGENCY PHONE: (716) 879-6700 Company

COMPANY ID NO.: N/A

UN/NA ID NO.: N/A

DOT HAZARDOUS MATERIALS PROPER SHIPPING NAME: N/A

DOT HAZARD CLASS: None

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Metal machining or grinding operations may produce fine particulate or dust; heating, melting, welding, or brazing may produce metal fumes and particulates. Inhalation or excessive fume or dust concentrations may result in respiratory tract irritation and/or metal fume fever.

SUMMARY OF ACUTE HAZARDS: Respiratory Tract Irritation, Metal Fume Fever, Eye Irritation.

ROUTE OF EXPOSURE	SIGNS AND SYMPTOMS	PRIMARY ROUTE
Inhalation	Inhalation of excessive dust or fume concentrations may result in respiratory tract irritation and metal fume fever. Symptoms of metal fume fever may last 24 to 48 hours and may include a sweet or metallic taste in the mouth, dryness and irritation of the throat, cough, shortness or breath, chest pain, nausea, vomiting, weakness, fatigue, muscle and joint pain, chills, sweating and fever.	(X)
Eye Contact	Mechanical irritation may result from an accumulation of dust particles in the eye.	(X)
Skin Absorption	No significant signs or symptoms indicative of an adverse effect are expected to occur.	()
Skin Irritation	No significant signs or symptoms indicative of an adverse effect are expected to occur.	()
Ingestion	If swallowed in large quantities, this material could have a toxic effect.	()
Symptoms of Chronic Hazards and Special Health Effects	Those rare individuals (one person in 200,000 population) suffering from the genetic disorder known as Wilson's Disease do not eliminate copper from the system in a normal fashion and should minimize ingestion and inhalation of copper containing materials.	

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component Name	CAS No.	Carcinogen ##	Composition Amount
Copper	7440-50-8	N/AP	60% to 95%
Zinc	7440-66-6	N/AP	Remainder
Lead	7439-92-1	N/AP	≤ .0090%
Iron	7440-66-6	N/AP	≤ .030%
Tin	7440-31-5	N/AP	≤ .050%
Arsenic	7440-38-2	N/AP	≤ .005%
Nickel	7440-02-0	N/AP	≤ .050%
Cadmium	7440-43-9	N/AP	≤ .002%
Sulfur	7404-34-9	N/AP	≤ .0050%
Phosphorus	7723-14-0	N/AP	≤ .002%
Antimony	7440-36-0	N/AP	≤ .010%
Bismuth	7440-69-9	N/AP	≤ .002%
Tellurium	13454-80-9	N/AP	≤ .010%

Listed by: 1 = NTP 2 = IARC 3 = OSHA 4 = Other
 Components are typical values, not specifications.

SECTION 4: FIRST AID MEASURES

Inhalation: Immediately remove from contaminated area to fresh air. If irritation persists, or if other signs or symptoms develop, seek medical attention.

Eye Contact: Mechanical injury only. Treat as mechanical injury only. Treat as inert foreign body.

Skin Contact: Not expected to present a significant skin contact hazard under anticipated conditions of normal use.

Ingestion: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

Emergency Medical Treatment Procedures: Metal fume fever may be treated symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Flash Point (method)	N/AP	Autoignition Temperature (method)	N/AP
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Flammable Limits (% volume in air)
 Upper N/AP Lower N/AP

Fire and Explosion Hazards Dust hazard exists under favoring conditions of small particle size. Dispersion in air and strong ignition source may result in an explosion.

Extinguishing Media Dry chemical; use dry powder for metal fires. Gently spoon media onto fire. Do not disturb dust particles.

Special Firefighting Procedures Do not enter fire area without proper protection including pressure-demand, self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Precautions if Material is Spilled or Released No notable environmental hazard is anticipated from the "release" of this material in bulk solid form on land. This material should be recovered from aquatic environments. If finely divided material is spilled in excess of EPA or state reportable quantities, the appropriate authorities should be contacted. For air emissions consult your local authority.

SECTION 7: HANDLING AND STORAGE

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Handling, Storage and Decontamination Good housekeeping must be practiced during storage, transfer, handling and use to avoid excessive dust accumulation. Apply recommendations of NFPA 491 for copper alloys. Procedures

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Substance	Source	Date	Type	Value/Units	Time
Copper Fume	OSHA	1988	TWA	0.1 MG/M3	8 Hrs.
Copper Dusts and Mists	OSHA	1988	TWA	1 MG/M3	8 Hrs.
Zinc Oxide Fume	OSHA	1988	TWA	5 MG/M3	8 Hrs.
Zinc Oxide Fume	OSHA	1988	TWA	10 MG/M3	8 Hrs.
Copper Fume	ACGIH	1988	TWA	0.2 MG/M3	8 Hrs.
Copper Dusts & Mists, as CU	ACGIH	1988	TWA	1 MG/M3	8 Hrs.
Zinc Oxide Fume	ACGIH	1988	TWA	5 MG/M3	8 Hrs.
Zinc Oxide Fume	ACGIH	1988	TWA	10 MG/M3	8 Hrs.
Zinc Oxide Dust	ACGIH	1988	TWA	10 MG/M3	8 Hrs.

Respiratory If exposure exceeds the PEL/TLV, use NIOSH-approved respiratory protection as specified in the NIOSH/OSHA Occupational Health Guidelines for Chemical Hazards.

Eye Use safety glasses with side-shields or goggles to prevent injury from flying particles of high dust concentrations. Use goggles or shield with appropriate light filtration during welding or cutting operations.

Skin Where use can result in skin contact with particulate, practice good personal hygiene. Wash hands or other exposed areas with a mild soap and water before eating, drinking or smoking.

Engineering Controls Use adequate ventilation to keep fume or dust concentration below the occupational exposure limits shown in Section VI. (Refer to ANSI Z49.1, "Safety in Welding and Cutting" and "OSHA Regulation" CFR 1910.252.)

Other Personal Hygiene Work Practices Where applicable, use protective gloves to protect against heat or sharp metal edges.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<u>Boiling Points</u> N/AP	<u>Viscosity Units, Temp Method</u> N/AP	<u>Dry Point</u> N/AP
<u>Freezing Point</u> N/AP	<u>Vapor Pressure</u> N/AP	<u>Sol. In Water</u> N/AP
		<u>Volatile Char.</u> Solids not Volatile
<u>Specific Gravity Water at 39F = 1</u> 8.45 to 8.86	<u>Vapor Sp. Gr. (Air = 1 at STP)</u> N/AP	<u>pH</u> N/AP

SECTION 10: STABILITY AND REACTIVITY

Hazardous Polymerization
No Stability
Stable

Other Chemical Reactivity
N/AP Other

Physical and Chemical Properties
Melting/freezing range 1650 F – 1950 F degrees odorless metallic material.

Conditions to Avoid
Exposure during storage to strong acids, bases or oxidizing agents. Materials to Avoid
Mercury, Ammonia and Acetylene.

Hazardous Decomposition Products
Metal fumes may be generated under extreme heat.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

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Use good personal hygiene. Wash hands with mild soap and water before eating, drinking, smoking, or before leaving work. Salts of metal components have demonstrated mutagenic potential in several bioassays, but the health significance of these results is unknown.

SECTION 12: ECOLOGICAL INFORMATION

No notable environmental hazard is anticipated from "release" of this material in bulk solid form on land. This material should be recovered from aquatic environments. If finely divided material is spilled in excess of EPA or state reportable quantities, the appropriate authorities should be contacted. For air emissions consult your local authority.

SECTION 13: DISPOSAL CONSIDERATIONS

Maximize product recovery for reuse or recycling. Conditions of use may cause this material to become a solid "Hazardous Waste" as defined by state or federal laws. Solid waste "leachate" testing may indicate the need for properly permitted disposal of such wastes in compliance with all applicable laws.

Conditions of use may also generate liquid wastes with metal concentrations in excess of those permitted through pre-treatment or direct discharge NPDES requirements. Appropriate analyses should be conducted to ensure compliance with existing wastewater permits.

SECTION 14: TRANSPORT INFORMATION

DOT Hazardous Materials Proper Shipping Name: None

DOT Hazard Class: N/AP

SECTION 15: REGULATORY INFORMATION

The copper and zinc in this material makes it subject to the reporting requirements of section 313 of Title III of the superfund amendments and reauthorization act of 1986 and 40 CFR Part 372. This notice must not be detached from this Safety Data Sheet and any copying or redistribution of this data sheet must include this notice.

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.)

SECTION 16: OTHER INFORMATION

Note: EQ = Equal AP = Approximately N/P = Not Applicable LT = Less Than UK = Unknown
 GT = Greater Than TR = Trace N/AP = Not Applicable N/DA = No Data Available

The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without warranty, express or implied, regarding its correctness.

The conditions or methods of handling, storage, use and disposal of this product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage and disposal of the product.