

Safety Data Sheet

According to OSHA CFR 29 Section 1910.1200

Creation Date: February 1986
Revision Date: December 2003
Product: Brass Steel
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Identification Plates Inc.
1555 High Point Drive
Mesquite, Texas 75149
1.800.395.2570

SECTION I

7113

24 Hour Emergency No. (610) 867-5831

Chemical Family: Metal

Formula: NA

Product Name: Apollo Electro Plated Brass Steel (Including: Bright, Satin, #19 Satin, #7 Satin, Embossed, and Unpolished Functional)

SECTION II - Hazardous Ingredients

BASE METAL	CAS. No.	%	OSHA PEL *	ACGIH TLV *
Iron	7439-89-6	Balance	10.0	5.0
Nickel	7440-02-0	.01-.40	1.0	1.0
Chromium	7440-47-3	.01-2.5	0.1	0.05
Silicon	7440-21-3	.15-2.2	15.0	10.0
Manganese	7439-96-5	.25-2.0	5.0	1.0
Carbon	7440-44-0	.01-1.2	NA	NA
Molybdenum	7439-98-7	.01-1.1	5.0	5.0
Copper	7440-50-8	.01-1.0	0.1	0.2
Trace Elements	NA	<2.0	NA	NA
METALLIC COATING				
Copper (Flash)	7440-50-8	10		
Fume			0.1	0.2
Dust			1.0	1.0
Copper	7440-50-8	63		
Fume			0.1	0.2
Dust			1.0	1.0
Zinc	7440-86-6	27		
Fume			5.0	5.0
Dust			—	10.0

SECTION III - Physical Data

Boiling Point (F) - 2324
Vapor Pressure (mm Hg) - NA

Vapor Density (AIR=1) - NA
Solubility in Water - Insoluble

Specific Gravity - 7.0-9.0
Percent Volatile by Volume (%) - NA
Evaporation Rate - NA

Appearance and Odor - Lustrous golden color; no odor

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SECTION IV - Fire and Explosion Hazard Data

Flash Point - NA

Flammable Limits - NA

Extinguishing Media - Dry chemical

Special Fire Fighting Procedures - Use self-contained breathing apparatus

Unusual Fire and Explosion Hazards - Water contact with molten metal may cause explosion.

SECTION V - Health Hazard Data

Health Effects/Signs and Symptoms:

Metal products in their usual physical form do not pose any health hazards. However, when subjected to welding, burning, grinding, cutting, abrasive blasting, heat treatment, pickling, or similar operations, potentially hazardous fumes or dusts may be emitted. The following is a list of fumes or dusts that may be generated from this product and the health effects associated with overexposure to them:

Iron (Fe): Subjecting iron and alloys containing iron to high temperatures (such as occurs during welding) will cause the formation of iron oxide. Long-term exposure to iron oxide fumes or dusts has been associated with a benign lung condition known as siderosis. No physical impairment of lung function has been linked to siderosis.

Nickel (Ni): Nickel fumes and dusts are respiratory irritants and may cause a severe pneumonitis. Skin contact with nickel and its compounds may cause an allergic dermatitis. The resulting skin rash is often referred to as "nickel itch." Nickel and its compounds may also produce eye irritation, particularly on the inner surfaces of the eyelids. Health studies have also linked nickel and certain nickel compounds to an increased incidence of cancer of the lungs and nasal passages.

Chromium (Cr): The toxicity and health hazards of chromium are heavily dependent upon its oxidation state. The elemental, divalent, and trivalent forms are of very low toxicity. The hexavalent form (such as occurs in chromates and chromic acid) is very toxic and can produce both acute and chronic effects. Adverse effects on the skin may include ulcerations, irritative dermatitis, and allergic skin reaction. Adverse effects on the respiratory system may include bronchospasms, edema, hypersecretion, bronchitis, irritation, allergic asthmatic reactions and ulceration and perforation of the nasal septum. Respiratory symptoms may include coughing and wheezing, shortness of breath, and nasal itch. Eye irritation or inflammation can also be produced. Exposure to some hexavalent chromium compounds has also been shown to be associated with an increased risk of lung cancer.

Silicon (Si): This is considered to be a nuisance particulate by ACGIH.

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Manganese (Mn): Manganese intoxication is usually due to the oxide or salts of manganese. The dusts and fumes can act as minor irritants to the eyes and respiratory tract. Early symptoms may include weakness in lower extremities, sleepiness, salivation, nervousness, and apathy. In more advanced stages, severe muscular incoordination, impaired speech, spastic walking, mask-like facial expression and uncontrollable laughter may occur. Manganese fumes have also been reported to result in metal fume fever. An increased incidence of pneumonia, bronchitis, and pneumonitis has been reported in some worker populations exposed to manganese.

Molybdenum (Mo): Molybdenum and its compounds generally exhibit a low order of toxicity; however, soluble compounds are considerably more toxic. Molybdenum trioxide may produce irritation of the eyes, nose, and throat. Pneumoconiosis with X-ray findings and subjective symptoms has been observed in a small number of workers exposed to metallic molybdenum and molybdenum trioxide; however, no physical impairment of lung function has been linked to this condition.

Copper (Cu): Inhalation of copper fume may cause irritation of the eyes, nose, and throat and a flu-like illness called metal fume fever. Signs and symptoms of metal fume fever include fever, muscle aches, nausea, chills, dry throat, cough, and weakness. Copper fume may also produce a metallic or sweet taste. Repeated or prolonged exposure to copper fume may cause discoloration of the skin and hair.

Zinc (Zn): Subjecting zinc or alloys containing zinc to high temperature will cause the formation of zinc oxide. Exposure to zinc oxide fumes or dust can result in metal fume fever. (See copper for symptoms.)

Usual Route(s) of Entry: Inhalation

Medical Conditions Possibly Aggravated: Chronic diseases or disorders of the respiratory system.

FIRST AID AND MEDICAL EMERGENCY PROCEDURES

Eye Contact: Not anticipated to pose a significant eye hazard.

Skin Contact: Not anticipated to pose a significant skin hazard.

Inhalation: Remove from excessive exposure levels unless proper respiratory protection is worn.

Ingestion: Not considered an ingestion hazard.

SECTION VI - Reactivity Data

Stability: Stable

Incompatibility: Strong acids or alkali

Hazardous Decomposition Products: A variety of noxious fumes and gases may be produced during burning, welding, or heat treating.

SECTION VII - Spill or Leak Procedures

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Steps to be Taken in Case Material is Released or Spilled: NA

Waste Disposal Method(s): Any excess product can be recycled for further use, disposed in a permitted hazardous waste landfill, or disposed by other methods which are in accordance with local, state, and federal regulations.

SECTION VIII - Special Protection Information

Engineering Controls: Ventilation should be sufficient to maintain exposure levels below the applicable exposure limits.

Handling and Storage: Arc or spark generated when welding or burning on this product could be a source of ignition for combustible or flammable materials.

Eye Protection: Not anticipated to pose a significant eye hazard.

Skin Protection: Not anticipated to pose a significant skin hazard.

Respiratory Protection: When engineering controls are not sufficient to lower levels below the applicable exposure limit, use a NIOSH-approved respirator for dusts and metal fume within the use limits of the respirator.

SECTION IX - Definitions

OSHA PEL - Occupational Safety and Health Administration Permissible Exposure Limits

ACGIH TLV - American Conference of Governmental Industrial Hygienists Threshold Limit Values

NA - Not Applicable

* - units in mg/m^3

This Material Safety Data Sheet is offered solely for your information. Apollo Metals, Ltd. provides no warranties and assumes no responsibility for the accuracy or completeness of the information contained herein. The metals information was referenced from Material Safety Data Sheets supplied to Apollo Metals.

Issued by: Apollo Metals Technical Department

Marie C. Reiner, CEF - Technical Manager

MATERIAL SAFETY DATA SHEET

Prepared in compliance with the Federal Hazard Communication Standard 29CFR 1910.1200

PRODUCT CODE : 448-1-2K637

lacquer for 7113

SECTION I

Identification Plates Inc.
1555 High Point Drive
Mesquite, Texas 75149
1.800.395.2570

TRANSPORTATION EMERGENCIES: CHEMTREC (800)424-9300
MANUFACTURER CODE IDENTIFICATION: 448-1-2K637

CUSTOMER CODE IDENTIFICATION: 448-1-2K637

→ PRODUCT NAME: GLOSS BLACK ACRYLIC
PRODUCT TRADE NAME: SUPER SERIES A
PREPARATION DATE : 02/24/99

PRODUCT CLASS: ACRYLIC MELAMINE

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT	CAS NUMBER	ACGIH-TVL	OCCUPATIONAL EXPOSURE LIMITS				LEL	V.P.	% BY WEIGHT
			OSHA-PEL	OTHER	UNITS	ALL VALUES 8 HOUR TWA UNLESS NOTED			
2-Butoxyethanol	111-76-2	25-SK	25-SK	NE	PPM	1.1	0.9	3.0 - 13.0	
Aromatic Petroleum Distillates	64742-94-5	NE	NH	100	PTM	1.0	<1.9	0.0 - 6.0	
Diacetone	123-42-2	50	50	NE	PPM	1.8	0.8	3.0 - 13.0	
Isobutyl Alcohol	78-83-1	50	50	NE	PPM	1.2	9.0	0.0 - 7.0	
N-butyl Alcohol	71-36-3	50-C	50-C	NE	PPM	1.4	4.4	4.0 - 14.0	
Xyloc (Mixed Isomers)	1330-20-7	100	100	NE	PPM	1.0	5.1	22.0 - 32.0	
Carbon Black	1333-86-4	3.5*	3.5*	NE	MGCM	N/A	N/A		
Formaldehyde	50-00-0	0.1	0.1	NR	MGCM	NDA	NDA		

This material contains ingredients covered by the California SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 (PROP. 65)

NOTES AND ABBREVIATIONS USED:

- SK : Skin absorption may potentially contribute to overall exposure
- TWA : Time weighted average
- C : Ceiling limit
- PPM : Parts per million
- MGCM : Milligrams per cubic meter
- NE : Not established
- N/A : Not applicable
- OTHER : Manufacturer recommended PEL
- V.P. : Vapor pressure listed mm Hg @ 20 C unless otherwise noted
- NDA : No Data Available
- LEL : Lower Explosive Limit (% by volume in air)
- * : Value and hazard are for particulate (nuisance) dust which is not present in form supplied.