

SAFETY DATA SHEET

February 27, 2009

IMPORTANT! READ AND UNDERSTAND THE MANUFACTURER'S INSTRUCTIONS, SAFETY DATA INFORMATION AND YOUR EMPLOYER'S SAFETY PRACTICES BEFORE USING THIS PRODUCT. THE READER SHOULD CONSULT REFERENCE WORKS OR INDIVIDUALS WHO ARE AUTHORITIES ON SAFETY, FIRE PREVENTION, VENTILATION, TOXICOLOGY, ETC. AS NECESSARY OR APPROPRIATE TO USE AND COMPREHEND THE DATA CONTAINED IN THIS SAFETY DATA SHEET.

SECTION 1. MATERIAL IDENTIFICATION

SUPPLIER: BELLMAN-MELCOR
7575 183RD ST.
TINLEY PARK, IL 60477 U.S.A.

REVISION DATE: January 10, 2016
REPLACES: February 27, 2009
PHONE NUMBER: (800) 367-6024

PRODUCT NAME: Brazelt 681 BRAZING ALLOY	CHEMICAL FAMILY: COPPER ALLOYS	ALLOY NUMBER: C.D.A. 681	A.W.S. SPECIFICATION: A5.7 RBCuZn-C
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SECTION 2. CHEMICAL COMPOSITION

ELEMENT	C.A.S. NUMBER	COMPOSITION %	OSHA PEL / TWA	ACGIH TLV / TWA
COPPER	7440-50-8	44.0 - 55.0	0.1 mg/m3 Fume 1.0 mg/m3 Dust/Mist	0.2 mg/m3 Fume 1.0 mg/m3 Dust/Mist
LEAD	7439-92-1	.05 MAX	.15 mg/m3;	
MANGANESE	7439-96-5	.01 - 0.50	1.0 mg/m3; Fume	1.0 mg/m3 Fume 5.0 mg/m3 Dust
IRON*	7439-89-6	.25 – 1.20	10.0 mg/m3 Fume	5.0 mg/m3 Fume
TIN	7440-31-5	.80 – 1.10	2.0 mg/m3	2.0 mg/m3
SILICON	7440-21-3	.04 - .15	15.0 mg/m3 Total Dust 5.0 mg/m3 Resp.	10.0 mg/m3 Total Dust
ALUMINUM	7429-90-5	.01 MAX	5.0 mg/m3	
ZINC*	7440-66-6	REMAINDER	5.0 mg/m3 Fume 15.0 mg/m3 Total Dust 5.0 mg/m3 Resp. Fraction	5.0 mg/m3 Fume 10.0 mg/m3 Total Dust 5.0 mg/m3 Resp. Fraction.

*Exposure limits are for the metal oxide which may be released during melting operations.

SECTION 3. PHYSICAL DATA

MELTING POINT: 1630° F 888° C	SOLIDIFICATION PT: 1590° F 866° C	VAPOR PRESSURE: N/A	SPECIFIC GRAVITY: 8.3 - 8.5 g/cc
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THIS PRODUCT IS A YELLOW TO RED SOLID AT ROOM TEMPERATURE AND EXHIBITS NO ODOR. THE METALLIC ROD IS INSOLUBLE IN WATER.

SECTION 4. STORAGE, FIRE AND REACTIVITY DATA

FLASH POINT: N/A	AUTO IGNITION TEMPERATURE: N/A	FLAMMABILITY LIMITS: N/A
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THERE IS NO FIRE OR EXPLOSION HAZARDS INVOLVED WITH THIS ALLOY. NEVER USE WATER AS AN EXTINGUISHING AGENT AROUND MOLTEN METAL - VIOLENT REACTION MAY OCCUR. THE ALLOY IS A STABLE, NON-HAZARDOUS SOLID AT ROOM TEMPERATURES. MATERIALS MAY REACT WITH ACIDS, BASES OR OXIDIZERS. THIS MATERIAL DOES NOT PRESENT A SIGNIFICANT HEALTH HAZARD UNDER NORMAL HANDLING AND STORAGE CONDITIONS.

SECTION 5. HEALTH HAZARD DATA

USE OF THIS PRODUCT IN FUME PRODUCING OPERATIONS (BRAZING) MAY RESULT IN AIRBORNE METAL PARTICULATES OR FUMES. THE EXPOSURE LEVELS IN SECTION II ARE RELEVANT TO FUMES AND DUSTS. CONSULT THE LATEST NIOSH REQUIREMENTS AND AWS/ANSI STANDARD Z49.1 Safety in Welding + Cutting. PRIMARY ROUTES OF EXPOSURE INCLUDE: INHALATION OF FUMES, GASES AND PARTICULATES AND INGESTION OF PARTICULATES. ABSORPTION THROUGH THE SKIN IS NOT LIKELY. CHRONIC EXPOSURE TO COPPER, ZINC AND MANGANESE MAY CAUSE METAL FUME FEVER. SYMPTOMS OF METAL FUME FEVER INCLUDE: FEVER, FATIGUE, DRYNESS OF THROAT, HEAD AND BODY ACHE AND CHILL. CHRONIC EXPOSURES MAY AFFECT THE CENTRAL NERVOUS SYSTEM, LEADING TO EMOTIONAL DISTURBANCES, GAIT AND BALANCE DIFFICULTIES AND PARALYSIS. OVEREXPOSURE TO COPPER MAY RESULT IN SKIN AND HAIR DISCOLORATION. NICKEL HAS BEEN IDENTIFIED AS A POTENTIAL CANCER CAUSING AGENT. THIS PRODUCT WILL NOT IRRITATE THE SKIN OR EYES IN BULK FORM. PARTICULATES MAY CAUSE DERMATITIS DUE TO MECHANICAL IRRITATION.

FIRST AID:

- *INGESTION: SEEK MEDICAL HELP IF LARGE QUANTITIES OF PRODUCT ARE INGESTED.
- *INHALATION: REMOVE FROM EXPOSURE TO DUST OF FUME PRESENT. SEEK MEDICAL HELP.
- *SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER.
- *EYE CONTACT: FLUSH WITH WATER FOR AT LEAST 15 MINUTES. SEEK MEDICAL HELP.



SECTION 6. SPILL PROCEDURES

PRODUCT IS A NON-HAZARDOUS SOLID. NO SPECIAL PRECAUTIONS ARE REQUIRED FOR SPILLS OF BULK MATERIAL. SCRAP METAL MAY BE RECLAIMED FOR REUSE. FOLLOW ALL FEDERAL, STATE AND LOCAL REGULATIONS REGARDING DISPOSAL.

SECTION 7. SPECIAL PROTECTION INFORMATION

ALWAYS USE EYE PROTECTION DURING BRAZING OPERATIONS. BRAZING MAY PRODUCE FUMES AND GASES HAZARDOUS TO HUMAN HEALTH. AVOID BREATHING FUMES AND GASES, USE ADEQUATE VENTILATION. WHERE DUST OR FUME LEVELS ARE GREATER THAN THOSE SPECIFIED IN SECTION II, NIOSH APPROVED RESPIRATORY PROTECTION SHOULD BE USED. REFER TO LATEST NIOSH REQUIREMENTS AND THE AWS/ANSI STANDARD Z49.1 Safety in Welding and Cutting FOR FURTHER INFORMATION.

SECTION 8. SPECIAL PRECAUTIONS & COMMENTS

WET MATERIAL SHOULD NEVER BE CHARGED INTO A MOLTEN BATH. WASH HANDS THOROUGHLY AFTER USE, ESPECIALLY BEFORE EATING.

SARA TITLE III SECTION 313 SUPPLIER NOTIFICATION

BRASS/BRONZE RODS, PARTS AND WIRE WHICH UNDERGO PROCESS OPERATIONS PRODUCING A DUST OR FUME ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR 372.

THE INFORMATION IN THIS SDS WAS OBTAINED FROM ANSI/AWS A5.8-92 AND WHICH WE BELIEVE RELIABLE. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OR CORRECTNESS. THE CONDITIONS OR METHODS OF HANDLING, STORAGE OR USE AND DISPOSAL OF THE 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, USE OR DISPOSAL OF THE PRODUCT.