SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION

Manufacturer:
Swissmetal Industries Ltd.
Grand-Rue 6
2732 Reconvilier
Switzerland
Emergency Phone Number:
+41 32 482 05 06

Supplier:
Swissmetal Industries Ltd.
Grand-Rue 6
2732 Reconvilier
Switzerland

Date of Creation: 26th November 2021
Date of Last Edit: 26th November 2021
Product Use: Free machining and cold working brasses
Product identification: Unleaded brasses
Alloys Trade Names:

Swissmetal Designation	ISO Designation	Standards	
58M	CuZn42		
58V	CuZn42		
60C	CuZn40		
63A	CuZn37		
E63P	CuZn37	CW508L	
E70	CuZn30	CE505L	
E72	CuZn28	CW405L	
E85	CuZn15	CW502L	
E90	CuZn10	CW501L	C22000
E95	CuZn5	CW500L	C21000

SECTION 2 : CHEMICAL COMPOSITION

The following chemical composition shows the maximum nominal amount of each element in the range of the alloys found on "section 1" and is displayed for information purpose only. Swissmetal can provide the chemical composition of a specific alloy under client request.

Element	Max % by weight
Copper (Cu)	95
Zinc (Zn)	42
Nickel (Ni)	0,3
Tin (Sn)	0,3
Aluminum (Al)	0,7

Lead can be present as trace element - max 0,1%

SECTION 3: HAZARDS IDENTIFICATION

Under normal handling and use, exposure to the solid form of **copper or copper alloys** presents few health hazards. Thermal cutting, melting, machining, grinding may produce fumes or dust containing the component elements and breathing these fumes or dust may present potentially significant health hazards. The exposure levels are relevant to fumes and dust, fumes of copper may cause metal fume fever with flu-like symptoms and copper may cause skin and hair discoloration.
Inhalation of **lead** fumes or dust, or ingestion of lead compounds can cause lead poisoning, characterized by abdominal pain, joint and muscle pains, or weakness. Prolonged overexposure can cause central nervous system disorders. Overexposure to **zinc** fumes may cause non-fatal metal fume fever. Excessive inhalation of **nickel** fumes has been associated with respiratory cancer. Also, nickel is a potential sensitizer, and thus may cause allergic reactions.

SECTION 4: FIRST AID MEASURES

Ingestion: If a person swallows' metal or metal dust, contact a poison center for precise information.
Inhalation: Difficulty of breathing may be induced by dust or fumes, leave the room and breathe fresh air. If difficulties to breathe, contact a medical assistance.
Eye: If dust is in contact with eyes, do not scratch it. Wash eyes with water and contact medical assistance.
Skin: Copper alloys do not irritate skin but contact with fumes and dust may induce allergic reactions and abrasive damages. If dust and fumes are in contact with skin, wash it with water.

SECTION 5: FIRE FIGHTING MEASURES

In the solid form, there are no risks of fire or explosion hazards with these alloys. Fine chips or dust may ignite and should be stored in a well-ventilated area. In case of fire, use extinguishing agents appropriate for the surroundings or materials. Dry chemicals or sand should be used to extinguish fires. Fire fighters should wear full protective clothing and self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, PPE, and emergency procedures: Not needed.
Environmental precautions: Not needed.
Methods and materials for containment and clean-up: Dispose it with recyclers and according to environmental regulations.

SECTION 7: HANDLING AND STORAGE

Use general and local exhaust ventilation to prevent accumulations of dust and to keep airborne dust concentrations at a minimum. Store dust away from source of ignition.

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

When required, employees should wear respirators for protection against airborne dust or fumes. Approved safety glasses and/or goggles should be worn during any machining, grinding, cutting or other operation from which airborne particles may be emitted. Food or drink should not be consumed in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

The following properties are displayed in the range of the alloys found on "section 1" for information purpose. Swissmetal can provide the properties a specific alloy under client request.

Physical form: Solid
Boiling temperature [°C]: N/A
Melting temperature [°C]: 880 - 1050
Vapor pressure (20 °C): N/A
1.0 mm Hg at 1628 °C for Cu
Specific gravity: 8.4-8.7 g/cm^3
Water solubility: Insoluble
pH: N/A
Color: Yellow
Odor: N/A

SECTION 10: STABILITY AND REACTIVITY

Copper alloys are stable under normal conditions of transport, use and storage.

SECTION 11: TOXICOLOGICAL INFORMATION

If used according to instructions of use, copper alloys do not cause any harmful side effects.

Lead: CAS no.: 7439-92-1
"This substance may damage fertility or the unborn child, causes damage to organs through prolonged or repeated exposure, is very toxic to aquatic life with long lasting effects, is very toxic to aquatic life and may cause harm to breast-fed children" [ECHA website on Lead].

SECTION 12: ECOLOGICAL INFORMATION

Semi-finished copper products do not have relevant ecological issues.

SECTION 13: DISPOSAL CONSIDERATIONS

Scrap metal can be reclaimed for reuse. Follow Federal, State and Local regulations regarding disposal.

SECTION 14: TRANSPORT INFORMATION

There are no transportation regulations applicable to alloys produced by Swissmetal.

SECTION 15: REGULATORY INFORMATION

REACH SVHC list (updated on 08th July 2021): The alloys of this Safety Data Sheet do not exceed the limits by weight in its chemical composition 0.1% w/w of Lead (Pb);
RoHS: The alloys of this Safety Data Sheet are compliant to RoHS.

SECTION 16: OTHER INFORMATION

Disclaimer of Liability

The information in this SDS was obtained from outer sources as reference. We provided this information without any warranty. We do not assume the responsibility and expressly disclaim liability for losses and damages in any way connected to the use of these products.