

# SAFETY DATA SHEET

#### 1. Identification

Product identifier Red Brass Alloys

Other means of identification

SDS number 9

Product code C83500, C83600, C83800, C84200, C84400, C84500, C84800, 81w/Cu, 85, Red Brass, Paper

Rolls, 81

**Recommended use**Manufacturing **Recommended restrictions**Not assigned.

Manufacturer / Importer / Supplier / Distributor information

Address 131 Myoma Road (PO Box 816) Mars, PA 16046

**Telephone** 1-800-626-7071

**E-mail** dpl@concast.com or adk@concast.com **Contact person** Dominic LeMaire or Andy Krowsoski

Emergency phone number 1-800-424-9300

Chemtrec (24-hrs)

Company name Concast Metal Products Company

# 2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Sensitization, skin Category 1

Carcinogenicity Category 2
Reproductive toxicity (fertility, the unborn Category 1A

child)

Specific target organ toxicity, repeated Category 2 (Lung, central nervous system)

exposure

OSHA hazard(s) Not classified.

Label elements

**Hazard symbol** 



Signal word Danger

Hazard statement May cause an allergic skin reaction. May cause damage to organs (Lung, central nervous

system) through prolonged or repeated exposure. Suspected of causing cancer. May damage

fertility or the unborn child.

**Precautionary statement** 

**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read

and understood. Use personal protective equipment as required. Contaminated work clothing

should not be allowed out of the workplace. Do not breathe dust/fume.

Response If on skin: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical

advice/attention. Wash contaminated clothing before reuse. If exposed or concerned: Get medical

advice/attention. Get medical advice/attention if you feel unwell.

Storage Store locked up.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise

classified (HNOC)

Not classified.

Environmental hazards Hazardous to the aquatic environment, Category 2

long-term hazard

# 3. Composition/information on ingredients

Mixture

Red Brass Alloys SDS US

3238 Version #: 01 Revision date: - Issue date: 11-05-2012

Hazardous components					
Chemical name	Common name and synonyms	CAS number	%		
Copper		7440-50-8	78-86		
Zinc		7440-66-6	4-16		
Lead		7439-92-1	1 4-8		
Tin		7440-31-5	2.3-6		
Nickel		7440-02-0	0-1		

**Composition comments** 

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. The alloy contains additional alloying elements at concentrations below disclosure requirements. At temperatures above the melting point the alloys may liberate fumes containing oxides of alloying elements.

### 4. First-aid measures

Inhalation Skin contact In case of exposure to fumes or particulates: Get medical attention immediately.

Contact with dust: Remove contaminated clothes and rinse skin thoroughly with water for at least 15 minutes. Get medical attention if irritation persists after washing. In case of allergic reaction or other skin disorders: Seek medical attention and bring along these instructions. In case of contact with hot or molten product, cool rapidly with water and seek immediate medical attention. Do not attempt to remove molten product from skin because skin will tear easily. Cuts or abrasions should be treated promptly with thorough cleansing of the affected area.

Eye contact

Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove any contact lenses and open eyelids wide apart.

Ingestion

Rinse mouth thoroughly if dust is ingested. Only induce vomiting at the instruction of medical personnel. Get medical attention if any discomfort continues.

Most important

May cause irritation to mucous membranes. May cause skin and eye irritation. Cough. Shortness

symptoms/effects, acute and delayed

of breath. Wheezing. Sensitization. The principal symptoms of lead poisoning are gastro-intestinal or central nervous system disturbances and anemia.

Indication of immediate

Treat symptomatically. Symptoms may be delayed.

medical attention and special treatment needed

General information

Get medical attention if any discomfort develops. Seek medical attention for all burns, regardless how minor they may seem. Show this safety data sheet to the doctor in attendance.

### 5. Fire-fighting measures

Suitable extinguishing media

Special powder against metal fires. Dry sand.

Unsuitable extinguishing media

Do not use water or halogenated extinguishing media. Do not use water on molten metal: Explosion hazard could result.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed. Solid metal is not flammable; however, finely divided metallic dust or powder may form an explosive mixture with air. In a fire, nickel may form nickel carbonyl, a highly toxic substance and known carcinogen.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

Fire-fighting equipment/instructions Move containers from fire area if you can do it without risk.

### 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Avoid inhalation of dust and contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet.

Methods and materials for containment and cleaning up

Avoid dust formation. Allow spilled material to solidify and scrape up with shovels into a suitable container for recycle or disposal. Collect dust using a vacuum cleaner equipped with HEPA filter. The vacuum cleaner should be explosion-proofed. If not possible, gently moisten dust before it is collected with shovel, broom or the like. This material and its container must be disposed of as hazardous waste.

**Environmental precautions** 

Avoid release to the environment. Do not contaminate water.

Red Brass Alloys SDS US

# 7. Handling and storage

### Precautions for safe handling

Follow special national provisions related to work with lead and its compounds. Pregnant women should not work with the product, if there is the least risk of lead exposure. Welding, burning, sawing, brazing, grinding or machining operations may generate fumes and dusts of metal oxides. Provide adequate ventilation. Avoid contact with sharp edges and hot surfaces. Avoid generation and spreading of dust and fumes. Avoid inhalation of dust and contact with skin and eyes. Avoid contact with hot or molten material. Dust clouds may be explosive under certain conditions. Take precautionary measures against static discharges when there is a risk of dust explosion. Use explosion-proof electrical equipment if airborne dust levels are high. To prevent and minimize fire or explosion risk from static accumulation and discharge, effectively bond and/or ground product transfer system. Wear appropriate personal protective equipment. Do not use water on molten metal. Do not eat, drink or smoke when using the product. Keep the workplace clean. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Keep dry. Store away from incompatible materials.

# 8. Exposure controls/personal protection

#### Occupational exposure limits

# US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Туре	Value			
Lead (CAS 7439-92-1)	TWA	0.05 mg/m3			
US. OSHA Table Z-1 Limits for Ai	r Contaminants (29 CFR 1910.	1000)			
Components	Туре	Value	Form		
Copper (CAS 7440-50-8)	PEL	1 mg/m3	Dust and mist.		
		0.1 mg/m3	Fume.		
Nickel (CAS 7440-02-0)	PEL	1 mg/m3			
Tin (CAS 7440-31-5)	PEL	2 mg/m3			
US. ACGIH Threshold Limit Value	es ·				
Components	Туре	Value	Form		
Copper (CAS 7440-50-8)	TWA	1 mg/m3	Dust and mist.		
		0.2 mg/m3	Fume.		
Lead (CAS 7439-92-1)	TWA	0.05 mg/m3			
Nickel (CAS 7440-02-0)	TWA	1.5 mg/m3	Inhalable fraction.		
Tin (CAS 7440-31-5)	TWA	2 mg/m3			
US. NIOSH: Pocket Guide to Cher	mical Hazards				
Components	Туре	Value	Form		
Copper (CAS 7440-50-8)	REL	1 mg/m3	Dust and mist.		
Lead (CAS 7439-92-1)	REL	0.05 mg/m3			
Nickel (CAS 7440-02-0)	REL	0.015 mg/m3			
Tin (CAS 7440-31-5)	REL	2 mg/m3	•		
ogical limit values					

#### Bio

# US. ACGIH. BEIs. Biological Exposure Indices

Components	Value	Determinant	Sampling Time
Lead (CAS 7439-92-1)	300 µg/l	Lead	*

<sup>\* -</sup> For sampling details, please see the source document.

# **Exposure guidelines**

Follow standard monitoring procedures.

# Appropriate engineering controls

Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of dust. Ventilate as needed to control airborne dust. Use explosion-proof ventilation equipment if airborne dust levels are high. Special ventilation should be used to convey finely divided metallic dust generated by grinding, sawing etc., in order to eliminate explosion hazards. Follow the schedule for work place measurements when working with lead and its compounds.

# Individual protection measures, such as personal protective equipment

# Eye/face protection

Wear dust-resistant safety goggles where there is danger of eye contact. In addition to safety glasses or goggles, a welding helmet with appropriate shaded shield is required during welding, burning, or brazing. A face shield is recommended, in addition to safety glasses or goggles, during sawing, grinding, or machining.

Red Brass Allovs SDS US Skin protection

**Hand protection** Wear suitable protective gloves to prevent cuts and abrasions. When material is heated, wear

gloves to protect against thermal burns. Suitable gloves can be recommended by the glove

supplier.

Other Wear suitable protective clothing.

Respiratory protection In case of inadequate ventilation or risk of inhalation of dust, use suitable respiratory equipment

with particle filter. When engineering controls are not sufficient to lower exposure levels below the applicable exposure limit, use a NIOSH approved respirator for dusts. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever work place conditions warrant a respirator's use. Seek advice from local supervisor.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Private clothes and working clothes should be kept separately. Contaminated uniforms should be laundered separately from other clothing to prevent potential cross-contamination. If possible, an industrial laundry service should be used to eliminate the possibility of contaminating the home environment. Handle in accordance with good industrial hygiene and safety practices. Observe any medical surveillance requirements.

# 9. Physical and chemical properties

**Appearance** Shapes, Solids, Tubes & Turnings.

Physical state Solid.

Form Shapes, Solids, Tubes & Turnings.

Color Yellow to red.

Odor None.

**Odor threshold** Not available. Not available. pН Melting point/freezing point 1841 °F (1005 °C) Initial boiling point and boiling Not available.

range

Not available. Flash point Not available. **Evaporation rate** Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower

Not available.

Flammability limit - upper

(%)

Not available.

Not available. Explosive limit - lower (%) Explosive limit - upper (%) Not available. Not available. Vapor pressure Not available. Vapor density

87 Relative density

Insoluble in water. Solubility(ies) Partition coefficient

(n-octanol/water)

Not available.

Not available. **Auto-ignition temperature** Not available. **Decomposition temperature** Not available. Viscosity

Other information

314 lb/in3 (20°C/68°F) **Bulk density** 

# 10. Stability and reactivity

Reactivity Stable at normal conditions.

**Chemical stability** Stable at normal conditions. Massive metal is stable and non reactive under normal conditions of

use, storage and transport.

Possibility of hazardous

reactions

Hazardous polymerization does not occur. Hot molten material will react violently with water

resulting in spattering and fuming.

Conditions to avoid Contact with incompatible materials. Contact with acids will release flammable hydrogen gas.

Avoid dust formation. Dust clouds may be explosive under certain conditions.

Red Brass Allovs SDS US Incompatible materials Acids. Ammonium nitrate. Fluoride. Halogens. Nitrates. Phosphorus. Strong oxidizing agents.

Sulfur.

Hazardous decomposition

products

Welding, burning, sawing, brazing, grinding or machining operations may generate dusts and

fumes of metal oxides. Lead oxide fumes may be formed at elevated temperatures.

# 11. Toxicological information

#### Information on likely routes of exposure

Not relevant, due to the form of the product. However, ingestion of dusts generated during Ingestion

working operations may cause nausea and vomiting.

Inhalation May cause respiratory tract irritation. Elevated temperatures or mechanical action may form dust

and fumes which may be irritating to the mucous membranes and respiratory tract.

May cause an allergic skin reaction. Hot or molten material may produce thermal burns. Workers Skin contact

allergic to nickel may develop eczema or rashes.

Eye contact Molten material will produce thermal burns. Elevated temperatures or mechanical action may form

dust and fumes which may be irritating to the eye.

Symptoms related to the physical, chemical and toxicological characteristics May cause irritation to mucous membranes. May cause skin and eye irritation. Coughing.

Shortness of breath. Wheezing. The principal symptoms of lead poisoning are gastro-intestinal or

central nervous system disturbances and anemia. Sensitization.

#### Information on toxicological effects

High concentrations of freshly formed fumes/dusts of metal oxides can produce symptoms of Acute toxicity

metal fume fever. Acute exposure to dust, and fume may cause irritation of skin and eyes. In sensitized individuals, exposure causes an asthma-like attack, with wheezing, bronchospasm,

and dyspnea.

Skin corrosion/irritation Elevated temperatures or mechanical action may form dust and fumes which may be irritating to

the eye, mucous membranes and respiratory tract. Hot or molten material may produce thermal

Serious eye damage/eye

irritation

Dust from machining operation in the eyes may cause irritation.

Respiratory sensitization Not classified.

Skin sensitization Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

May cause allergic skin reaction.

Germ cell mutagenicity No data available.

Possible cancer hazard - may cause cancer based on animal data. Carcinogenicity

IARC Monographs. Overall Evaluation of Carcinogenicity

Lead (CAS 7439-92-1) 2B Possibly carcinogenic to humans.

Nickel (CAS 7440-02-0) 1 Carcinogenic to humans.

NTP Report on Carcinogens

Nickel (CAS 7440-02-0) Known To Be Human Carcinogen.

Reasonably Anticipated to be a Human Carcinogen.

Nickel: Has shown teratogenic effects in laboratory animals. Lead is a teratogen. Elevated lead exposure of either parent before pregnancy may increase the changes of miscarriage or birth

defects. Continuous exposure may result in decreased fertility. Exposure of the mother during pregnancy may cause birth defects.

Specific target organ toxicity single exposure

Reproductive toxicity

Not available.

Specific target organ toxicity -

repeated exposure

Causes damage to the following organs through prolonged or repeated exposure: Lung. Central nervous system.

**Aspiration hazard** Not available.

Chronic effects Danger of cumulative effects. Prolonged and repeated overexposure to dust and fumes can lead

to benign pneumoconiosis (stannosis). Chronic inhalation of metallic oxide dust/fume may cause metal fume fever. Lead may produce maternal toxicity, toxicity to the fetus, and adverse effects to blood, bone marrow, central/peripheral nervous systems, kidney, liver, and reproductive system.

**Further information** Lead is accumulated in the body and may cause damage to the brain and nervous system after

prolonged exposure. Welding or plasma arc cutting of metal and alloys can generate ozone, nitric oxides and ultraviolet radiation. Ozone overexposure may result in mucous membrane irritation or

pulmonary discomfort. UV radiation can cause skin erythema and welders flash.

# 12. Ecological information

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

Red Brass Allovs SDS US Components Species Test Results

Lead (CAS 7439-92-1)

LC50 Rainbow trout, donaldson trout

(Oncorhynhus mykiss)

**Persistence and degradability** The product is not biodegradable.

Bioaccumulative potentialThe product contains potentially bioaccumulating substances.Mobility in soilAlloys in massive forms are not mobile in the environment.Mobility in generalAlloys in massive forms are not mobile in the environment.

Other adverse effects An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

# 13. Disposal considerations

**Disposal instructions**This material and its container must be disposed of as hazardous waste. Dispose in accordance

with all applicable regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

Hazardous waste code Z110: Inorganic compounds n.o.s.

Waste from residues / unused

products

Recover and recycle, if practical. Solid metal and alloys in the form of particles may be reactive. Its hazardous characteristics, including fire and explosion, should be determined prior to disposal.

1.17 mg/l, 96 Hours

Contaminated packaging Not applicable.

# 14. Transport information

DOT

UN number UN3077

**UN proper shipping name** Environmentally hazardous substances, solid, n.o.s. (Lead RQ = 140 LBS)

Transport hazard class(es) 9

Subsidary class(es) Not available.

Packing group

Special precautions for user Not available.

Labels required 9

**Special provisions** 8, 146, B54, IB8, IP3, N20, T1, TP33

Packaging exceptions 155
Packaging non bulk 213
Packaging bulk 240

IATA

UN number UN3077

**UN proper shipping name** Environmentally hazardous substance, solid, n.o.s. (Lead)

Transport hazard class(es) 9
Subsidary class(es) Packaging group III
Labels required 9
ERG Code 9L

Special precautions for user Not available.

**IMDG** 

UN number UN3077

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Lead), MARINE

**POLLUTANT** 

Transport hazard class(es) 9
Subsidary class(es) Packaging group III
Environmental hazards

Marine pollutantYesLabels required9EmSF-A, S-FSpecial precautions for userNot available.

Transport in bulk according to Annex II of MARPOL 73/78 and

No information available.

the IBC Code

# 15. Regulatory information

**US federal regulations**This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

Red Brass Alloys SDS US

# US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Lead (CAS 7439-92-1) 29 CFR 1910.1025

**CERCLA Hazardous Substance List (40 CFR 302.4)** 

 Copper (CAS 7440-50-8)
 LISTED

 Lead (CAS 7439-92-1)
 LISTED

 Nickel (CAS 7440-02-0)
 LISTED

 Zinc (CAS 7440-66-6)
 LISTED

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes

Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - Yes

SARA 302 Extremely No

hazardous substance

SARA 311/312 Hazardous Yes

chemical

### Other federal regulations

# Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Lead (CAS 7439-92-1) Nickel (CAS 7440-02-0)

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

# Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Not listed.

### Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Not regulated.

### **DEA Exempt Chemical Mixtures Code Number**

Not regulated.

Food and Drug Not regulated.

Administration (FDA)

**US state regulations** WARNING: This product contains chemicals known to the State of California to cause cancer

and birth defects or other reproductive harm.

### **US. Massachusetts RTK - Substance List**

Copper (CAS 7440-50-8) Lead (CAS 7439-92-1) Nickel (CAS 7440-02-0) Tin (CAS 7440-31-5) Zinc (CAS 7440-66-6)

### US. New Jersey Worker and Community Right-to-Know Act

 Copper (CAS 7440-50-8)
 500 LBS

 Lead (CAS 7439-92-1)
 500 LBS

 Nickel (CAS 7440-02-0)
 500 LBS

 Zinc (CAS 7440-66-6)
 500 LBS

# US. Pennsylvania RTK - Hazardous Substances

Copper (CAS 7440-50-8) Lead (CAS 7439-92-1) Nickel (CAS 7440-02-0) Tin (CAS 7440-31-5) Zinc (CAS 7440-66-6)

### **US. Rhode Island RTK**

Copper (CAS 7440-50-8) Lead (CAS 7439-92-1) Nickel (CAS 7440-02-0) Tin (CAS 7440-31-5) Zinc (CAS 7440-66-6)

### **US. California Proposition 65**

### US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Lead (CAS 7439-92-1) Nickel (CAS 7440-02-0)

Red Brass Alloys SDS US

3238 Version #: 01 Revision date: - Issue date: 11-05-2012

### **International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

<sup>\*</sup>A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

# 16. Other information, including date of preparation or last version

**Issue date** 11-05-2012

Revision date - 01

Further information Not available.

References HSDB® - Hazardous Substances Data Bank

IARC Monographs. Overall Evaluation of Carcinogenicity National Toxicology Program (NTP) Report on Carcinogens

ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

**Disclaimer** The information in this MSDS was obtained from industry sources that we believe to be 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, 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.

Red Brass Alloys

3238 Version #: 01 Revision date: - Issue date: 11-05-2012

8 / 8