MATERIAL SAFETY DATA SHEET
WAH CHANG
PO BOX 460 - ALBANY, OREGON - 97321

SECTION 1. **Revised: 2/10/2011** **Product Number: 490**

PRODUCT: NICKEL-TITANIUM BASE ALLOYS

SYNONYMS: Shape Memory Alloy, Superelastic Alloy

CHEMICAL FAMILY: Metal-base Alloys

HMIS HAZARD RATING: **HEALTH = *0 FIRE = 0 REACTIVITY = 0**

HMIS RATING: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic

24 HOUR EMERGENCY ASSISTANCE
WAH CHANG
An Allegheny Technologies Company
541-926-4211
CHEMTREC
800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

ROUTES OF ENTRY

INHALATION:	Yes (dust)
INGESTION:	No
SKIN ABSORPTION:	No
SKIN/EYE CONTACT:	Yes (dust)

SECTION 3. COMPOSITION, INGREDIENTS INFORMATION

CHEMICAL COMPONENTS	%	C.A.S. NO.	OSHA/ACGIH EXPOSURE LIMITS mg/m^3 or ppm	
			PEL	TLV
Nickel, Ni	35-60	7440-02-0	1	1.5
Titanium, Ti	20-50	7440-32-6	10 (as oxide)	10 (as oxide)
Iron, Fe	0-6	7439-89-6	10 (as Fe_2O_3)	5 (as Fe_2O_3)
Hafnium, Hf	0-40	7440-58-6	0.5	0.5
Copper, Cu	0-15	7440-50-8	1 (dust), 0.1 (fume)	1 (dust), 0.2 (fume)
Vanadium, V	0-10	7440-62-2	0.05 (as V_2O_5)	0.05 (as V_2O_5)
Niobium, Nb	0-20	7440-03-1	10 (PNOR)	10 (PNOS)
Boron, B	0-1	7440-42-8	10 (as oxide)	10 (as oxide)

PNOR = Particles Not Otherwise Regulated, PNOS = Particles Not Otherwise Specified

SECTION 2. HAZARDS IDENTIFICATION

ROUTES OF ENTRY

INHALATION:	Yes (dust)
INGESTION:	No
SKIN ABSORPTION:	No
SKIN/EYE CONTACT:	Yes (dust)

N. Ap. = Not Applicable
N. Av. = Not Available

SECTION 4. FIRST AID MEASURES

INHALATION:	Move to fresh air..
EYE CONTACT:	Follow the normal procedure for removal of a foreign object.
SKIN CONTACT:	N.Ap.
INGESTION:	N.Ap.

SECTION 5. FIRE FIGHTING MEASURES

IGNITION POINT: N.Av.

FLAMMABLE LIMITS: N.Av.

EXTINGUISHING MEDIA: Dry table salt, sand, or Type D fire extinguisher

FIRE FIGHTING PROCEDURES: Separate the unburned material and allow the fire to burn out. Control small fires by smothering with dry table salt, sand, or using Type D fire extinguishing material. Do not use water.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Wear self-contained breathing apparatus in enclosed areas. Toxic metal fumes are potentially generated.

SECTION 6. ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES: Sweep up spilled solids. Keep finely divided material away from any source of ignition and cleaned up immediately. Follow Guide No. 170 for fines spill response.

SECTION 7. HANDLING AND STORAGE

PRECAUTIONS TO TAKE DURING HANDLING AND STORAGE:

Use caution in handing solids, which may have sharp edges. **Warning:** May Form Combustible (Explosive) Dust - Air Mixtures. Keep away from all ignition sources including heat, sparks, and flame. Keep container closed and grounded. Prevent dust accumulations to minimize explosion hazard.

SECTION 8. EXPOSURE CONTROL, PERSONAL PROTECTION

RESPIRATORY PROTECTION: Wear appropriate NIOSH approved respirator for dust or fume if exposure exceeds 1/2 the Permissible Exposure Limit.

PROTECTIVE None

EYE PROTECTION: Wear safety glasses with side shields or safety goggles consistent with a PPE Assessment of the task involving this material.

ADDITIONAL PROTECTIVE MEASURES: None

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT @ 760 mm Hg:	N.Ap.
VAPOR DENSITY (AIR = 1):	N.Ap.
SPECIFIC GRAVITY (H_20 = 1):	5.8-7.5
Ph OF SOLUTIONS:	N.Ap.
FREEZING/MELTING POINT:	Above 1000°C
SOLUBILITY (WEIGHT % IN WATER):	Insoluble
BULK DENSITY:	360-470 lb/ft^3
% VOLATILE BY VOLUME:	Nonvolatile
VAPOR PRESSURE:	0 @ 20°C
EVAPORATION RATE:	N.Ap.
HEAT OF SOLUTION:	N.Ap.
APPEARANCE AND ODOR:	Metallic Silver-gray odorless solids

SECTION 10. STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Acids and strong oxidizing agents

INCOMPATIBILITY (Materials to Avoid): Nickel-nitric mixtures. Bromine attacked by hydrofluoric acid or hydrofluoric-nitric mixtures. Bromine and iodine solutions in methanol attack the alloys.

HAZARDOUS DECOMPOSITION PRODUCTS: Nickel-titanium alloys do not decompose. The above reactions with incompatible materials will generate liquids containing nickel ions in solution that are considered carcinogenic.

SECTION 11. TOXICOLOGICAL INFORMATION

TARGET ORGANS: None known

TOXICITY DATA: These alloys are non-toxic. The binary NiTi alloys are used for medical applications within the human body. However, if the alloys are dissolved in acid or treated chemically to form water soluble compounds of nickel, consider the possibly toxic characteristics of the resulting materials during processing or disposal procedures.

CORROSIVE: No

CARCINOGEN: Not is solid form. Only if Ni ions formed by acid dissolution.

SENSITIZER: No

COMMENTS: None

ACUTE EFFECTS FROM EXPOSURE: None known

CHRONIC EFFECTS FROM EXPOSURE: None known.

REFERENCES:

Plunkett, Handbook of Industrial Toxicology, 2nd Ed.
NIOSH, Registry of Toxic Effects of Chemical Substances
ITI- Toxic and Hazardous Industrial Chemical Safety Manual
CRC Handbook of Chemistry and Physics, 61st Ed.
Sax- Dangerous Properties of Industrial Materials, 7th Ed.
Encyclopedia of Occupational Health and Safety, 3rd Ed.
Patty's Industrial Hygiene and Toxicology, 3rd Ed., Vol. 2A.
OSHA Occupational Health Guidelines for Chemical Materials
UMETCO MCDS for Vanadium pentoxide

SECTION 12. ECOLOGICAL PROTECTION

ENVIRONMENTAL HAZARDS: None. As an alloy, this material is non-toxic

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Comply with Federal, State, and Local requirements for waste disposal. Fine, non-recyclable scrap may be considered a hazardous flammable solid

SECTION 14. TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION:
Metal Alloy

D.O.T. PROPER SHIPPING NAME
N.Ap.

D.O.T. I.D. NUMBER
N.Ap.

PACKING GROUP

HAZARD CLASS

LABELS REQUIRED

NORTH AMERICAN EMERGENCY RESPONSE GUIDE NUMBER
170

SECTION 15. REGULATORY INFORMATION

Section 313 Supplier Notification: This product contains the following chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372): Nickel, Copper and Vanadium if applicable

In addition to the ingredients listed in Section 2, this product contains the following chemicals considered by the State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as causing cancer or reproductive toxicity and for which warnings are now required: None

The Comprehensive Environmental Response, Compensation, and Liability Act of 1990, Sec102 (40 CFR 302) requires that any "release" into the "environment" of these hazardous substances contained in a product in excess of the "reportable quantity" in any 24-hour period must be immediately reported to the National Response Center (800-424-8802). Reporting is not required under certain circumstances such as a federally permitted release or the release of certain metal solid particles with a diameter larger than 100 micrometers: None

The Superfund Amendments and Reauthorization Act of 1986 (40 CFR 355) specifies certain emergency planning and notification requirements if these extremely hazardous substances are present in concentrations of greater than 1% at a facility in amounts greater than the threshold planning quantity: None

If this product is discarded as a waste, it would be identified with the following hazardous waste classification under the Resource Conservation and Recovery Act (40 CFR 261). The act specifies requirements for the management and disposal of hazardous wastes: If applicable D001 Flammable Solid

Components on Canadian "ingredient Disclosure List": All components listed on the Canadian List

TSCA (Toxic Substances Control Act): Components of this product listed on the TSCA Inventory are: All chemical components are listed on the TSCA inventory

SECTION 16. OTHER INFORMATION

None

ATI WAH CHANG
PO BOX 460
ALBANY, OR 97321

Safety data sheet

according to ordinance (EC) No. 1907/2006

Printed on: 12.11.2010
last revised on: 12.11.2010

Trade name and product number:
RAU-SIK compact

Manufacturer/supplier: Raumedic AG / Rochat Industrie SA CH1028 Préverenges

1. Identification of the substance/preparation and of the company/undertaking

1.1 Identification of the substance or preparation: RAU-SIK8..., RAU-SIK6...

1.2 Use of the substance/preparation: semi-finished articles in RAU-SIK compact, only for industrial application

1.3 Company/undertaking identification:

Rochat Industrie SA
Le Trési 6A
CH1028 Préverenges
info@rochatindustrie.ch

Tel. : +41 21 694 33 33
Fax : +41 21 694 33 30

1.4 Emergency telephone: +41 79 210 25 35

Office hours: Monday – Friday : 07:30 - 12 :00 13 :00 – 17h00

2. Hazards identification

none

3. Composition/information on ingredients

Chemical characterisation of the preparation: Silicone rubber

4. First aid measures

n.a.

5. Fire-fighting measures

Suitable extinguishing agents:	Foam, carbon dioxide, powder-type extinguishing agents, sand, directed water spray
Extinguishing media not suitable due to safety reasons:	none
Particular hazard:	none
Special fire protective equipment:	none

6. Accidental release measures

n.a.

Safety data sheet
according to Ordinance (EC) No. 1907/2006

Date: 12.11.2010
last revised on: 12.11.2010

Trade name and product number:
Semi-finished articles in RAU-SIK compact
Fehler! Verweisquelle konnte nicht gefunden werden.

Manufacturer/supplier: Raumedic AG / Rochat Industrie SA CH1028 Préverenges

7. Handling and storage

7.1 Handling

-

7.2 Storage

Store in a dry place at room temperature

8. Exposure controls/personal protection

Special protective equipment and hygienic measures are not required if processed according to instructions.

8.1 Exposure limit values

-

8.2 Exposure controls

-

8.2.1 Occupational exposure controls

-

8.2.2 Environmental exposure controls

-

Safety data sheet
according to Ordinance (EC) No. 1907/2006

Date: 12.11.2010
last revised on: 12.11.2010

Trade name and product number:
Semi-finished articles in RAU-SIK compact
Fehler! Verweisquelle konnte nicht gefunden werden.

Manufacturer/supplier: Raumedic AG / Rochat Industrie SA CH1028 Préverenges

9. Physical and chemical properties

9.1 General information

Form: solid **Colour: different** **Odour: faint**

9.2 Important health, safety and environmental information

pH:	n.a.
Boiling point/boiling range:	-
Flashpoint:	n.a.
Flammability (solid, gas):	-
Explosive properties:	n.a.
Oxidising properties:	-
Vapour pressure:	-
Relative density:	-
Solubility:	-
Water solubility:	-
Partition coefficient: n-octanol/water:	-
Viscosity:	-
Vapour density:	> 1
Evaporation rate:	-
Changes in state:	n.d.
Self-ignition:	n.a.
Vapour pressure:	n.a.

9.3 Other information

-

10. Stability and reactivity

10.1 Conditions to avoid

n.a.

10.2 Materials to avoid

n.a.

10.3 Hazardous decomposition products

In case of incomplete oxidative decomposition, small amounts of partial oxidation products (e.g. formaldehyde) may develop.

Safety data sheet
according to Ordinance (EC) No. 1907/2006

Date: 12.11.2010
last revised on: 12.11.2010

Trade name and product number:
Semi-finished articles in RAU-SIK compact
Fehler! Verweisquelle konnte nicht gefunden werden.

Manufacturer/supplier: Raumedic AG / Rochat Industrie SA CH1028 Préverenges

11. Toxicological information

No data available on this preparation. No hazards to be expected due to pellet form.

12. Ecological information

No data available on this preparation. No hazards to be expected.

12.1 Ecotoxicity

-

12.2 Mobility

-

12.3 Persistence and degradability

-

12.4 Bioaccumulative potential

-

12.5 Results of PBT assessment

-

12.6 Other adverse effects

-

13. Disposal considerations

Waste to be managed in accordance with local authority regulations (EAK code 120 105).

14. Transport information

Not a hazardous substance within the meaning of transport regulations.

Safety data sheet

according to Ordinance (EC) No. 1907/2006

Date: 12.11.2010

last revised on: 12.11.2010

Trade name and product number:
Semi-finished articles in RAU-SIK compact
Fehler! Verweisquelle konnte nicht gefunden werden.

Manufacturer/supplier: Raumedic AG / Rochat Industrie SA CH1028 Préverenges

15. Regulatory information

Identification according to EEC guidelines:	not required
National regulations Germany:	
Ordinance on hazardous substances:	Identification not required
TA-Air:	not required
Water hazard class:	0 - in general not hazardous to water (self-classification)

16. Other information

This safety data sheet is necessary according to Article 31 of the ordinance (EC) No. 1907/2006 although the product does not represent a health hazard in its present form.

The information above represents the current degree of our knowledge and experience. It is intended to describe our product with regard to any safety requirements, but is not a guarantee of its properties or a description of its quality.

Information:

n.a. = not applicable n.d. = not determined

16.1 Revision status

Material Safety Data Sheet

Printing date 02/04/2014 Version - No. 6 Reviewed on 02/04/2014

1 Identification

· **Product identifier**

· Trade name: **Wieland Z33**

· Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.
· Application of the substance / the preparation: Semi-finished product

· **Details of the supplier of the safety data sheet**
· Manufacturer/Supplier:
Wieland-Werke AG
Graf-Arco-Straße 36
89079 Ulm (Germany)
Tel.: +49 (0)731/944-0
Fax: +49 (0)731/944-2799

· Information department:
Department testing laboratories
michael.ebner@wieland.de
· Emergency telephone number:
Factory security offices
Phone: +49 (0) 731-944-3706

2 Hazard(s) identification

· **Classification of the substance or mixture**
· Classification according to Regulation (EC) No 1272/2008 (CLP-Regulation):
For products there is no obligation to classify acc. to CLP -Regulation.
The product is not classified according to the CLP regulation.

· **Label elements**
· Labelling according to Regulation (EC) No 1272/2008: Void
· Hazard pictograms: Void
· Signal word: Void

· Hazard-determining components of labeling: Void
· Hazard statements: Void
· **Other hazards**
Semi-finished products from copper or copper-alloys, as offered for sale as manufactured present no health hazard to man or for the aquatic enviroment.
· Results of PBT and vPvB assessment
· PBT: Not applicable to metals
· vPvB: Not applicable to metals.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**
· Description: Metal in compact form.
· UNS-number: C38500
· Information:
The classifications mentioned below reflect the respective pure substance and are for information only.
Copper alloys are special preparations according to Regulation (EC) 1907/2006 (REACH Regulation).
The classification of a pure substance is not applicable to its use as element of a copper alloy.

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Material Safety Data Sheet

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Trade name: Wieland Z33

(Contd. of page 1)

· Components:		
CAS: 7440-50-8 EINECS: 231-159-6 RTECS: GL 5325000	copper	57.0-59.0%
CAS: 7439-92-1 EINECS: 231-100-4 RTECS: OF 7525000	lead	2.5-3.5%
CAS: 7440-66-6 EINECS: 231-175-3 RTECS: ZG 8600000	zinc	balance%

4 First-aid measures

· **Description of first aid measures**
· General information:
No special measures required.
First Aid information refer to any dust which is generated.
· After inhalation:
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
· After skin contact: Immediately wash with water and soap and rinse thoroughly.
· After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· After swallowing: Rinse out mouth and then drink plenty of water.
· Information for doctor:
· Most important symptoms and effects, both acute and delayed:
No further relevant information available.
· Indication of any immediate medical attention and special treatment needed:
No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**
· Suitable extinguishing agents:
Non-flammable. Use fire fighting measures that suit the environment.
· **Special hazards arising from the substance or mixture**
No further relevant information available.
· **Advice for firefighters**
· Protective equipment: No special measures required.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures:** Not required.
· **Environmental precautions:** Not required
· **Methods and material for containment and cleaning up:**
Dispose of the collected material according to regulations.
· **Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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Material Safety Data Sheet

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Trade name: Wieland Z33

(Contd. of page 2)

7 Handling and storage

· **Handling:**
· Precautions for safe handling: No special measures required.
· Information about protection against explosions and fires: No special measures required.

· **Conditions for safe storage, including any incompatibilities**
· Storage:
· Requirements to be met by storerooms and receptacles: No special requirements.
· Further information about storage conditions: None.
· **Specific end use(s):** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Control parameters**

· Components with limit values that require monitoring at the workplace:	
7440-50-8 copper	
PEL	Long-term value: 1* 0.1** mg/m³ as Cu *dusts and mists **fume
REL	Long-term value: 1* 0.1** mg/m³ as Cu *dusts and mists **fume
TLV	Long-term value: 1* 0.2** mg/m³ *dusts and mists; **fume; as Cu
7439-92-1 lead	
PEL	Long-term value: 0.05* mg/m³ *see 29 CFR 1910.1025
REL	Long-term value: 0.05* mg/m³ *8-hr TWA,excl. lead arsenate;See PocketGuideApp.C
TLV	Long-term value: 0.05* mg/m³ *and inorganic compounds, as Pb; BEI

· Ingredients with biological limit values:	
7439-92-1 lead	
BEI	30 µg/100 ml Medium: blood Time: not critical Parameter: Lead 10 µg/100 ml Medium: blood Time: not critical Parameter: Lead (women of child bearing potential)

· Additional Occupational Exposure Limit Values for possible hazards during processing:	
1314-13-2 zinc oxide	
PEL	Long-term value: 15* 5** mg/m³ *total dust **respirable fraction and fume
REL	Short-term value: C 15* 10** mg/m³ Long-term value: 5* 5** mg/m³ *dust only **fume
TLV	Short-term value: 10* mg/m³ Long-term value: 2* mg/m³ *as respirable fraction

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Trade name: Wieland Z33

(Contd. of page 3)

· Additional information: The lists that were valid during the creation were used as basis.

· **Exposure controls**
· Personal protective equipment:
· General protective and hygienic measures:
Wash hands before breaks and at the end of work.
Do not inhale dust / smoke / mist.
· Breathing equipment: Use a suitable industrial gas mask when work-place-limits are exceeded.
· Protection of hands:
Protective gloves are recommended, depending upon how the semis are further processed.
· Eye protection:
Protective goggles are recommended, depending upon how the semis are further processed.
· Body protection:
Wear suitable protective clothing, depending upon how the semis are further processed.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**
· General Information
· Appearance:

Form:	Solid
Color:	copper yellow
· Odor:	Odorless
· Odour threshold:	Not determined.

· Change in condition

Melting point/Melting range:	880-895 °C (1616-1643 ° F) (Lit.)
Boiling point/Boiling range:	Undetermined.

· Flash point:	Not applicable.
· Danger of explosion:	Product does not present an explosion hazard.
· Density at 20 °C (68 °F):	8.46 g/cm³ (70.599 lbs/g al) (Lit.)

· Solubility in / Miscibility with
Water: Not soluble.
· **Other information** No further relevant information available.

10 Stability and reactivity

· **Reactivity:** Not applicable.
· Chemical stability: Not applicable.
· Thermal decomposition / conditions to be avoided:
No decomposition if used according to specifications.
· **Possibility of hazardous reactions:** No dangerous reactions known.
· **Conditions to avoid:** No further relevant information available.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

· **Information on toxicological effects**
· Acute toxicity:
· Primary irritant effect:
· on the skin: No irritant effect.
· on the eye: No irritating effect.

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Trade name: Wieland Z33

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· Sensitization: No sensitizing effects known.
· Additional toxicological information:
When used and handled according to specifications, the article does not have any harmful effects to our experience and the information provided to us.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)		
7439-92-1	lead	2B

· NTP (National Toxicology Program)		
7439-92-1	lead	R

12 Ecological information

· **Toxicity**
· Aquatic toxicity: No further relevant information available.
· **Persistence and degradability:** No further relevant information available.
· **Behavior in environmental systems**
· Bioaccumulative potential: No further relevant information available.
· Mobility in soil: No further relevant information available.
· **Additional ecological information**
· General notes:
For semi-finished products in copper or copper-alloys no information regarding ecology is suitable, as it is not soluble in water.
· **Results of PBT and vPvB assessment**
· PBT: Not applicable to metals.
· vPvB: Not applicable to metals.
· **Other adverse effects:** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· Recommendation: Contact manufacturer for recycling information.

14 Transport information

· **UN-Number**	
· DOT, ADR, ADN, IMDG, IATA	Void
· **UN proper shipping name**	
· DOT, ADR, ADN, IMDG, IATA	Void
· **Transport hazard class(es)**	
· DOT, ADR, ADN, IMDG, IATA	
· Class	Void
· **Packing group**	
· DOT, ADR, IMDG, IATA	Void
· **Environmental hazards:**	
· Marine pollutant:	No
· **Special precautions for user:**	Not applicable.

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Trade name: Wieland Z33

(Contd. of page 5)

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.

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15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

All ingredients are listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65

· Chemicals known to cause cancer:

7439-92-1	lead

· Chemicals known to cause reproductive toxicity for females:

7439-92-1	lead

· Chemicals known to cause reproductive toxicity for males:

7439-92-1	lead

· Chemicals known to cause developmental toxicity:

7439-92-1	lead

· Cancerogenity categories

· EPA (Environmental Protection Agency)

7440-50-8	copper	D
7440-66-6	zinc	D,I,II
7439-92-1	lead	B2

· TLV (Threshold Limit Value established by ACGIH)

7439-92-1	lead	A3

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Chemical safety assessment void.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific article features and shall not establish a legally valid contractual relationship

· **Department issuing MSDS:** Department testing laboratories

· **Contact:**

Dr. Michael Ebner

Phone (+)49 (0)731/944-3706

· * Data compared to the previous version altered.