

SAFETY DATA SHEET (GHS)

Issue Date: 18.07.2016
Version: 1.0.2
Revision Date: 16.01.2017
Print Date: 16.01.2017

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE/PRODUCT AND MANUFACTURER/IMPORTER**1.1 Product identifier:-**

Product name: 4All Alloy
Product number: 563727

1.2 Other means of identification:-

Not applicable.

1.3 Recommended use of the chemical and restrictions on use:-

Not applicable.

Identified uses:

Manufacture of dental prosthesis.

1.4 Details of the manufacturer and importer:-**Manufacturer:**

Ivoclar Vivadent AG
 Bendererstrasse 2 FL-9494 Schaan
 Principality of Liechtenstein
 Tel: + 423 235 35 35 Fax: + 423 235 33 60
 Ivoclar Vivadent Pty Ltd
 1- 5 Overseas Drive Noble Park North VIC 3174
 Tel: + 61 3 9795 9599 Fax: + 61 3 9795 9645
 Email: info@ivoclarvivadent.com

Importer:

13 11 26
 Poisons Hotline (24 hours / 7 days)

1.5 Emergency phone number:**2. HAZARD(S) IDENTIFICATION****2.1 GHS Classification:-**

Skin Sens. 1 H317 May cause an allergic skin reaction.
 Carc. 2 H351 Suspected of causing cancer.
 STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.

2.2 GHS Label elements, including precautionary statements:-**Hazard Pictogram:**

GHS07



GHS08

Signal word:

Danger

Hazard-determining components of labelling:

Nickel

Hazard statements:

H317 May cause an allergic skin reaction.
 H351 Suspected of causing cancer.
 H372 Causes damage to organs through prolonged or repeated exposure.
 P201 Obtain special instructions before use.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P260 Do not breathe dust/fume/gas/mist/vapours/spray.
 P321 Specific treatment (see on this label).
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Precautionary statements:

Additional information:-

Alloys do not require a label, providing they do not present a hazard to human health by inhalation, ingestion or contact with skin or to the aquatic environment in the form in which they are placed on the market.

2.3 Other hazards:-**Results of PBT and vPvB assessment:**

PBT:	Not applicable.
vPvB:	Not applicable.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient name	CAS No.	Classification	Concentration
Nickel	7440-02-0	Carc. 2 - H351 STOT RE 1 - H372 Skin Sens. 1 - H317	50-100%
Chromium	7440-47-3	Substance with a community workplace exposure limit.	25-50%
Silicon	7440-21-3	Flam. Sol. 2 – H228	1-<2.5%
Non-hazardous ingredients	N/A	N/A	to 100%

For the full text of the H-Statements mentioned in this Section, refer to Section 16.

4. FIRST AID MEASURES**4.1 Description of necessary first aid measures:-****General advice:**

Remove contaminated clothing and shoes immediately and launder thoroughly before reusing.

First aid facilities include first aid rooms and medical centres.

If a risk assessment determines that a first aid room or medical centre is not needed, a rest area within the workplace may be suitable to assist an injured or ill person.
Grinding dust.

If inhaled:

Ensure supply of fresh air.

Remove affected person from the immediate area.

Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

In case of skin contact:

After contact with the molten product, cool rapidly with cold water.

Wash off immediately with water.

If skin irritation continues, consult a doctor.

In case of eye contact:

Grinding dust.

Remove contact lenses, irrigate copiously with clean, fresh water for at least 15 minutes holding the eyelids apart and seek medical advice.

Mechanical effects only.

If swallowed:

Do not induce vomiting.

Rinse mouth thoroughly with water.

Let plenty of water be drunk in small gulps.

Never give anything by mouth to an unconscious person.

Call a doctor immediately.

4.2 Symptoms caused by exposure:-

Please refer to section 2.2 and section 11.

4.3 Medical attention and special treatment:-

No further relevant information available.

5. FIRE FIGHTING MEASURES**5.1 Suitable extinguishing equipment:-****Suitable extinguishing media:**

This product is not flammable.

Unsuitable extinguishing media:

No further relevant information available.

- 5.2 Specific hazards arising from the substance/mixture/product:-** | No further relevant information available.
- 5.3 Special protective equipment and precautions for fire fighters:-**
- Special personal protective equipment:** | Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
- Precautions:** | Cool endangered receptacles with water spray.
- Hazchem code:** | No further relevant information available.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:-

Not required.

6.2 Environmental precautions:-

No special measures required.

6.3 Methods and materials for containment and cleaning up:-

Pick up mechanically.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling:-

Extractors are required on all machines used for thermal processing or splinter removal process.

No special measures necessary if stored and handled as prescribed.

Only adequately trained personnel should handle this product.

For use in dentistry only.

Ensure good ventilation/exhaustion at the workplace.

Keep ignition sources away – do not smoke.

Wash hands before breaks and after work.

Do not eat, drink or smoke during work time.

Remove soiled or soaked clothing immediately.

Keep away from foodstuffs and beverages.

7.2 Conditions for safe storage, including any incompatibilities:-

Keep only in the original container.

Containers which are opened must be carefully closed and kept upright to prevent leakage.

Keep container tightly sealed.

Store in cool, dry conditions in well-sealed receptacles.

Store receptacle in a well ventilated area.

Recommended storage temperature for storage rooms and vessels is 20 - 30°C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure control measures:-

Occupational exposure limits:-

Component	CAS No.	Value	Parameters	Basis
Nickel	7440-02-0	Long-term value: 0.5 mg/m ³ as Ni		The lists valid during the making were used as basis.
Chromium	7440-47-3	Long-term value: 0.5 mg/m ³		
Silicon	7440-21-3	Long-term value: 10* 4** mg/m ³ *inhalable dust ** respirable dust		

Ingredients with biological limit values:

Exposure should be kept to as low as practicable and below the AOES.

8.2 Biological monitoring:-

Assess in accordance with exposure limits – please refer to section 8.1.

Exposure controls / Personal protective equipment / General protective and hygienic measures:

Usual hygienic measures for dental practice.

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wash hands before breaks and at the end of work.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Avoid contact with the eyes and skin.

8.3 Control banding:-

Use good industrial hygiene practice and general ventilation.

8.4 Engineering controls:-

In case of intensive contact, wear protective gloves (EN 374).

Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties).

Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves.

Protective gloves shall be replaced immediately when physically damaged or worn.

8.5 Individual protection measures include PPE:-

Eye/face protection:



Safety glasses

Use tightly fitting safety glasses as per Australian Standard AS 1336 and AS/NZS 1337.

Skin protection:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

Butyl rubber, BR.

Fluorocarbon rubber (Viton).

PVA gloves.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Provide for good ventilation of working area (local exhaust ventilation, if necessary).

In case of brief exposure or low pollution use respiratory filter device.

In case of intensive or longer exposure use self-contained respiratory protective device.

Respiratory protection:

9. PHYSICAL/CHEMICAL PROPERTIES

9.1 Information on physical/chemical properties:-

a) Appearance/Form:	Solid.
b) Colour:	White.
c) Odour:	Odourless.
d) Odour threshold:	Not determined.
e) pH value:	Not applicable
f) Melting point/melting range:	1260 – 1350°C.
g) Boiling point/boiling range:	Undetermined.
h) Flash point:	Not applicable.
i) Ignition temperature:	Not determined.
j) Self-igniting:	Product is not self-igniting.
k) Danger of explosion:	Product does not present an explosion hazard.
l) Upper/lower flammability or explosive limits:	Lower Not determined. Upper Not determined.
m) Vapour pressure:	Not applicable.
n) Density at 20°C:	8.4 g/cm ³ .
o) Relative density:	Not determined.
p) Vapour density:	Not applicable.
q) Evaporation rate:	Not applicable.
r) Solubility in/miscibility with water:	Insoluble.
s) Partition coefficient: n- octanol/water:	Not determined.
t) Viscosity:	Dynamic Not applicable. Kinematic Not applicable.
u) Solids content:	100%

10. STABILITY AND REACTIVITY

10.1 Reactivity:-

No further relevant information available.

10.2 Chemical stability:-

Stable under normal handling and storage conditions.

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions:-

No dangerous reactions known.

10.4 Conditions to avoid:-

No further relevant information available.

10.5 Incompatible materials:-

No further relevant information available.

10.6 Hazardous decomposition products:-

None under normal conditions of storage and use.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:-

Acute toxicity / Values relevant for classification:

No further relevant information available.

Skin corrosion/irritation:

No irritant effect.

Serious eye damage/eye irritation:

No irritating effect.

Respiratory or skin sensitization:

Sensitization possible through skin contact.

Germ cell mutagenicity:

No further relevant information available.

Carcinogenicity:

No further relevant information available.

Reproductive toxicity:

No further relevant information available.

Specific target organ toxicity - single exposure:

No further relevant information available.

Specific target organ toxicity - repeated exposure:

Aspiration hazard:

Additional information:

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

No further relevant information available.

No further relevant information available.

Fumes or dusts generated from cutting or grinding operations may cause respiratory irritation.
Carc. 2 H351 Suspected of causing cancer.

11.2 Information on possible routes of exposure:-

Short Term (Acute) Exposure:

Swallowed:

Eyes:

Skin:

Inhaled:

Long Term (Chronic) Exposure:

Swallowed:

Eyes:

Skin:

Inhaled:

No further relevant information available.

No further relevant information available.

No further relevant information available.

Sensitization possible through skin contact.

No further relevant information available.

No further relevant information available.

No further relevant information available.

No further relevant information available.

Sensitization possible through skin contact.

No further relevant information available.

No further relevant information available.

11.3 Early onset symptoms related to exposure:-

11.4 Delayed health effects from exposure:-

11.5 Exposure levels and health effects:-

11.6 Interactive effects:-

11.7 Other:-

No further relevant information available.

No further relevant information available.

No further relevant information available.

No further relevant information available.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity:-

No further relevant information available.

12.2 Persistence/degradability:-

No further relevant information available.

12.3 Bioaccumulative potential:-

No further relevant information available.

12.4 Mobility in soil:-

No further relevant information available.

12.5 Other adverse effects:-

No further relevant information available.

Additional ecological information / General notes:

No further relevant information available.

12.6 Other adverse effects:-

No further relevant information available.

13. DISPOSAL CONSIDERATIONS

13.1 Disposal methods:-

Must not be disposed together with household garbage.

Do not allow product to reach sewage system.

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal.

Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

Disposal must be made according to official regulations.

Take to an approved landfill or a waste incineration plant, under conditions approved by the local authority.

14. TRANSPORT INFORMATION

UN number ADR / IMDG / IATA:-	Void.
UN proper shipping name or technical name:-	
ADR:	Void.
IMDG, IATA:	Void.
Transport hazard class(es):	Void.
Label:	Void.
Packaging group:	Void.
Environmental hazards:	No.
Special precautions for user:	Not applicable.
Danger code:	Void.
EMS Number:	Void.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	Not applicable.
Transport/Additional information:	Product is not classified as a dangerous good for transport.

15. REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance/mixture/product:-**

Classified as Hazardous according to the criteria of the National Occupational Health and Safety Commission (NOHSC) approved criteria for the classifying hazardous substances [NOHSC: 1008] 3rd edition.

Standard for the Uniform Scheduling of Medicines and Poisons.

Carcinogen classification under WHS Regulation 2011, Schedule 10.

Notification status in accordance with section 3 and current national legislation.

16. OTHER INFORMATION**Key to abbreviations/acronyms used in SDS:-**

H228 Flammable solid.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H372 Causes damage to organs through prolonged or repeated exposure.

Key literature references/data sources used to compile SDS:-

Standard EN420:2003 General requirements for protective gloves: disposable gloves, e.g. nitrile rubber, material thickness 0.1 mm (Australian Standard 2161).

Long-term exposure (Level 6: < 480 min): protective gloves, e.g. nitrile rubber, material thickness 0.7 mm (Australian Standard 2161).

Personal eye protection - Eye and face protectors for occupational applications: safety glasses (Australian Standard AS 1336 and AS/NZS 1337.1:2010).

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Abbreviations and acronyms:-

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

GHS: Globally Harmonised System of Classification and Labelling of Chemicals.

EINECS: European Inventory of Existing Commercial Chemical Substances.

ELINCS: European List of Notified Chemical Substances.

CAS: Chemical Abstracts Service (division of the American Chemical Society).

LC50: Lethal concentration, 50 percent.

LD50: Lethal dose, 50 percent.

Flam. Liq. 2: Flammable liquids, Hazard Category 2.
Flam. Liq. 3: Flammable liquids, Hazard Category 3.
Acute Tox. 4: Acute toxicity, Hazard Category 4.
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2.
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2.
Repr. 2: Reproductive toxicity, Hazard Category 2.
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3.
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2.
Asp. Tox. 1: Aspiration hazard, Hazard Category 1.
*** Data compared to the previous version altered**

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