YETI Dentalprodukte GmbH According to 1907/2006/EG, article 31

DUOVEST Special-Liquid

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Identification of the substance or preparation: DUOVEST Special-Liquid/ Item 951-1000

Use of the substance/preparation: Expansion Liquid for investment material

Company/undertaking identification: YETI Dentalprodukte GmbH

Industriestr.3 78234 Engen GERMANY

Technical information: Application technique Tel. +49(0)7733-94100

Telephone / fax / email: +49(0)7733-94100 / +49(0)7733-941022

E-Mail:sdb@yeti-dental.com

Emergency telephone: +49 7733-9410-0 (Mo.-Thu. 8.00 –16.30, Fr.8.00 – 14.30)

02. HAZARDS IDENTIFICATION

Hazard identification and hazards to man and the environment

Product acts as base (pH: ~10) and is therefore irritant to skin by longer exposure.

03. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization

Aqueous solution of colloid silicic acid

Hazardous ingredients

Chemical name Concentration CAS No. Index No. R phrases Hazard symbols

[% by weight]

Silica sol 20-40 7631-86-9

Formaldehyde < 0,05 50-00-0

Ingredients with EC concentration limits

-

Please see chapter 16. OTHER INFORMATION for the wording of the above mentioned R phrases.

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04. FIRST AID MEASURES

Inhalation

Eve contact

Rinse the opened eye with plenty of water for 15 minutes.

Skin contact

Wash areas in contact with soap and water.

Ingestion

Don't try to induce vomiting, seek for medical assistance.

05. FIRE-FIGHTING MEASURES

Suitable extinguishing media

No restrictions in case of surrounding fire.

Extinguishing media which shall not be used for safety reasons

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

Not flammable.

Special protective equipment for fire-fighters

06. ACCIDENTAL RELEASE MEASURES

Personal precautions and methods for cleaning up

Builds slippery films, therefore absorb mechanically immediately and rinse the rests with plenty of water.

Environmental precautions

Please see chapters 08. EXPOSURE CONTROLS/PERSONAL PROTECTION and 13. **DISPOSAL CONSIDERATIONS**

07. HANDLING AND STORAGE

Precautions for safe handling and conditions for safe storage

Product acts as base (pH: ~10) and is therefore irritant to skin by longer exposure. Prevent from freezing. Store the liquid above +5°C.

08. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values and/or biological limit values

Minimisation of exposure and exposure control

a) Equipment for individual protection

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The type of equipment for individual protection has to be chosen according to concentration and quantity of hazardous compounds.

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Respiratory protection Hand protection

Protective gloves

Eye protection Body protection

goggles No protective suite or boots are necessary, if

the product is used as indicated.

b) Specific hygiene measures

The usual protective measures for handling chemical substances have to be observed.

c) Environmental exposure controls

Please see chapters 06. ACCIDENTAL RELEASE MEASURES and 07. HANDLING AND STORAGE. No further methods are required.

09. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state: liquid
Colour: white
Odour: odourless

Important health, safety and environmental information

Lower explosive limit :Vol%Upper explosive limit :Vol%Vapour pressure : (20 °C)20 mbarVapour pressure : (50 °C)mbarDensity : (20 °C)1,09-1,35 g/cm³Bulk density : (20 °C)g/cm³

Viscosity: (20 °C) <20 (dynamic)

mPa•s

Water solubility: (20 °C) completely pH value (20 °C) approx.

10

Boiling point / range : approx. 100°C Setting point: (1013 hPa) °C

(1013 mbar)

Melting point:

°C

Solidification point:

°C

Flash point:

Not applicable

Ignition temperature:

Not

applicable

Additional physical and chemical properties are not available.

10. STABILITY AND REACTIVITY

Conditions to avoid

Thermal decomposition: water vapour from approx. 100°C

Materials to avoid

Acts as a base.

Hazardous decomposition products

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None when used according to determinations.

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11. TOXICOLOGICAL INFORMATION

The toxicological classification of the preparation was made according DIRECTIVE 1999/45/EC. According to the experience of the producer there have no further hazards to be expected.

Conclusion from test data

Conclusion from experience

No data available

No data available

Information on ingredients

LD50 (oral, rat):

Eye of Rabbit:

LD50 (inhal., rat):

mg/l/4h (IUCLID)

mg/kg (IUCLID)

irritant

Skin of rabbit (24 h):

Slightly irritant

12. ECOLOGICAL INFORMATION

Ecotoxicity

TOC value:

Acute bacterial Bacteria in activated

toxicity: sludge EC50 =

>10000mg/l

CSB value:

Acute toxicity Zebra danio

on fishes:

(Brachhydanio rerio) LC0:

5000 mg/l

Mobility

No data available

Bioaccumulative potential

No data available

Other adverse effects

No data available

Persistence and degradability

No data available

Results of PBT assessment

No data available

13. DISPOSAL CONSIDERATIONS

Substance/Preparation and waste code according to waste-list regulation (AVV).

Can be drained into sewerage in sufficient thinning observinglocal regulations. Emptied packages can be diposed of at waste site.

Recommendation: Clarify exact waste code with local disposal authorities.

14. TRANSPORT INFORMATION

No dangerous good according to general transport regulations.

Sensitive to temperatures below +°5C.

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15. REGULATORY INFORMATION

Label according to EC Directive

Symbols and indications of danger Determinant ingredient for labelling

contains:

R phrases

S phrases

Other information

No dangerous good for transport, sensitive to temperatures below +5°C and above +35°C.

EC Regulations

No labelling necessary according to EU regulations.

Safety assessment

A safety assessment of ingredients of this preparation was not performed.

National regulations

Water hazard class

0 - not hazardous to water according to VwVwS, Annex 4 (Germany)

16. OTHER INFORMATION

Included EC Directives / Regulations

Preparation Directive 1999/45/EC, lastly changed by Directive 2006/8/EC Substance Directive 67/548/EC, lastly changed by directive 2006/121/EC REACH regulation (EC) No. 1907/2006

Recommendations for use-restriction by the supplier

Only for professional, industrial use – not for public, non-professional use.

R phrases, which are mentioned in chapter 3

References: http://www.baua.de

http://www.arbeitssicherheit.de

The information given is based on our actual state of knowledge. The safety data sheet describes the product regarding safety requirements. The indications do not have the meaning of guaranties on properties. Not completed columns indicate that data are not available. Therefore they don't induce the presumption that there are no dangers in this column. The indications don't establish any legal relationship.

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950 DUOVEST

- 1. Identification of the Substance/Preparation and of the Company/Undertaking
- 1.1 Identification of the Substance/Preparation

DUOVEST Investment material, Item No.: 950-0160

1.2 Company Identification

YETI Dentalprodukte GmbH Industriestraße 3 D-78234 Engen Germany

E-Mail: sdb@yeti-dental.com

Information: Tel. +49 77 33 / 94 10 0 Fax +49 77 33 / 94 10 22

(Mo. – Thu. 8h – 16h30, Fr. 8h – 14h)

Emergency: Tel. +49 77 33 / 94 10 0 Fax +49 77 33 / 94 10 22

(Mo. – Thu. 8h – 16h30, Fr. 8h – 14h)

2. Hazards identifications

None if product is used according to determinations.

3. Composition / Information on ingredients

Chemical characterization: SiO2, NH4H2PO4, MgO.

4. First-aid measures

After eye contact

In case of eye contact, immediately rinse thoroughly with plenty of water.

After ingestion

If symptoms persist, please seek medical assistance.

5. Fire-fighting measures

Suitable fire extinguishing media

No restrictions with surrounding fires.

Special danger caused by the products, its combustion products or emerging gases:

NH4H2PO4 decomposes into diphosphate and NH3 at approx. 190 °C.

Special protective fire fighting equipment

No special measures required.

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6. Accidental release measures

Person-related precautionary measures

Avoid formation of dust.

Environmental protection measures and cleaning

To be picked up with an adequate device and to be disposed

7. Physical and chemical properties

Appearance

Form: powdery Colour: white

Odour: nearly neutral

Safety relevant data

Melting point: approx. 1000 °C Density at 20 °C approx. 2.4 g/ml

8. Exposure controls / Personal protection

Engineering measures (prevention of worker exposure):

CAS no. designation type value/unit

14808-60-7 SiO2 OEL 0.15 g/m³ (fine dust) 1309-48-4 MgO OEL 1.5 g/m³ (fine dust)

Personal protective equipment

Respiratory protection

Fine dust mask when working with larger quantities.

Protection and hygiene measures

The customary precautionary measures for handling chemicals are to be observed.

Wash hands and / or face before breaks and at the end of a working day.

9. Handling and Storage

Handling

No special measures necessary.

Storage class

VCI 10-13C

10. Stability and reactivity

Hazardous decomposition products

No decomposition if stored and used according to determinations.

NH4H2PO4 decomposes in a preheating furnace into diphosphate and NH3 at approx. 190°C.

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11. Toxicological information

Information not required.

12. Ecological information

Details on elimination (persistence and degradability) Biodegradability

Can be separated mechanically to a large extent in purification plants.

Water hazard class

1 (self-assessment)

13. Disposal considerations:

Product rests:

Have to be disposed in accordance with the regulations of the local authorities.

Contaminated packaging:

To be treated in the same way as the product.

Non-contaminated packaging may be recycled.

14. Transport information:

No hazardous good in sense of general transport regulations.

15. Regulatory information

Identification requirement according to Hazardous Substances Regulations / EU Directives

Contains quartz dust, wear a fine-dust mask.

16. Other information:

This information is based on the state of knowledge and experience pertaining on the date of issue. The information is not to be taken as a garantee of general properties. It should neither be changed nor transferred to other products. Duplication in an unchanged state is permitted.

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