SAFETY DATA SHEETS

This SDS packet was issued with item: 071397835

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

071397769 071397777 071397785 071397793 071397801 071397819 071397827 071397850 071397868 071397876 071397884 071397892 071397900 071397918 071397926 071397934 071397942 071397959 071397975 071397983 071397991

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

071397710 071397728 071397736



according to UN GHS (ST/SG/AC.10/11/Rev.8)

VITA AKZENT LC

Revision date: 03.04.2019

Product code: 317

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1. Identification

Product identifier

VITA AKZENT LC

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

Special finishes Use as laboratory reagent

Details of the supplier of the safety data sheet

| Company name: | VITA Zahnfabrik H.Rauter GmbH & Co.KG | |
|-------------------------|---------------------------------------|-----------------------------|
| Street: | Spitalgasse 3 | |
| Place: | D-79713 Bad Säckingen | |
| Post-office box: | 1338 | |
| | D-79704 Bad Säckingen | |
| Telephone: | +49(0)7761-562-0 | Telefax: +49(0)7761-562-299 |
| e-mail: | info@vita-zahnfabrik.com | |
| Contact person: | regulatory affairs | |
| e-mail: | info@vita-zahnfabrik.com | |
| Internet: | www.vita-zahnfabrik.com | |
| Responsible Department: | Regulatory Affairs | |
| Emergency phone number: | +49-(0)761-19240 | |

Further Information

medical device

2. Hazard(s) identification

Classification of the chemical

UN GHS (ST/SG/AC.10/11/Rev.8)

Hazard categories: Flammable liquids: Flam. Liq. 2 Skin corrosion/irritation: Skin Irrit. 2 Serious eye damage/eye irritation: Eye Dam. 1 Respiratory or skin sensitization: Skin Sens. 1 Specific target organ toxicity single exposure: STOT SE 3 Hazardous to the aquatic environment: Aquatic Chronic 3 Hazard Statements: Highly flammable liquid and vapor Causes skin irritation Causes serious eye damage May cause an allergic skin reaction May cause respiratory irritation Harmful to aquatic life with long lasting effects

Label elements

UN GHS (ST/SG/AC.10/11/Rev.8)

Hazard components for labelling

methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate 2-Propenoic acid, reaction products with pentaerythritol Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinat pentaerythritol tetraacrylate pentaerythritol triacrylate triethylene glycol dimethacrylate



according to UN GHS (ST/SG/AC.10/11/Rev.8)

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Revision date: 03.04.2019 Product code: 317 Page 2 of 9 Danger Signal word: Pictograms: Hazard statements H225 Highly flammable liquid and vapor H315 Causes skin irritation H317 May cause an allergic skin reaction H318 Causes serious eye damage H335 May cause respiratory irritation Harmful to aquatic life with long lasting effects H412 **Precautionary statements** P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P233 Keep container tightly closed. P280 Wear protective gloves/protective clothing/eye protection/face protection.

Hazards not otherwise classified

No information available.

3. Composition/information on ingredients

Mixtures



according to UN GHS (ST/SG/AC.10/11/Rev.8)

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Hazardous components

| CAS No | Components | Quantity |
|------------------|---|-------------|
| | Classification (UN GHS (ST/SG/AC.10/11/Rev.8)) | |
| 80-62-6 | methyl methacrylate | 30 - < 35 % |
| | Flam. Liq. 2, Skin Irrit. 2, Skin Sens. 1, STOT SE 3; H225 H315 H317 H335 | |
| | Hexamethylene diisocyanate polymer with pentaerytriol reaction products with acrylic acid | 25 - < 30 % |
| | Skin Irrit. 2; H315 | |
| 72869-86-4 | 7,7,9-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecan-1,16-diylbismethacrylat | 5 - < 10 % |
| | Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, STOT SE 3; H315 H319 H317 H335 | |
| 1245638-61- 2 | 2-Propenoic acid, reaction products with pentaerythritol | 5 - < 10 % |
| | Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 2; H302 H315 H318 H317 H411 | |
| 84434-11-7 | Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinat | 1 - < 5 % |
| | Skin Sens. 1, Aquatic Chronic 2; H317 H411 | |
| 4986-89-4 | pentaerythritol tetraacrylate | 1 - < 5 % |
| | Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1; H315 H319 H317 | |
| 3524-68-3 | pentaerythritol triacrylate | 1 - < 5 % |
| | Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1; H315 H319 H317 | |
| 109-16-0 | triethylene glycol dimethacrylate | 1 - < 5 % |
| | Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, STOT SE 3; H315 H319 H317 H335 | |
| 109-16-0 | 2,2'-ethylenedioxydiethyl dimethacrylate | 1 - < 5 % |
| | Skin Sens. 1B; H317 | |
| | Maleinsäureanhydrid, Telomer mit a-Methylstyrol, Dimer und Styrol, 3- (Dimethylamino)propylimid, Imid mit Polyethylenpolypropylenglykol 2-aminopropyl Me ether, quaternisiert mit 2-[(C10-16-alkyloxy)methyl]oxiran | < 1 % |
| | Aquatic Chronic 1; H410 | |
| 868-77-9 | 2-hydroxyethyl methacrylate | < 1 % |
| | Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1; H315 H319 H317 | |

4. First-aid measures

Description of first aid measures

After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

After contact with skin

Take off immediately all contaminated clothing and wash it before reuse. After contact with skin, wash immediately with plenty of water and soap. When in doubt or if symptoms are observed, get medical advice.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. When in doubt or if symptoms are observed, get medical advice.

After ingestion

Rinse mouth immediately and drink plenty of water. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. When in doubt or if symptoms are observed, get medical advice.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed



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Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Water spray jet, Carbon dioxide (CO2), Foam, Extinguishing powder.

Specific hazards arising from the chemical

Highly flammable. Vapors may form explosive mixtures with air.

Special protective equipment and precautions for fire-fighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Use water spray/stream to protect personnel and to cool endangered containers. Supress gases/vapors/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

General advice

Remove all sources of ignition. Do not breathe gas/fume/vapor/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Danger of explosion

Methods and material for containment and cleaning up

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

Reference to other sections

Safe handling: see section 7 Personal protection equipment (PPE): see section 8 Disposal: see section 13

7. Handling and storage

Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fume/vapor/spray.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapors may form explosive mixtures with air.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.



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Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances.

8. Exposure controls/personal protection

Control parameters

Exposure limits

| CAS No | Substance | ppm | mg/m³ | f/cc | Category | Origin |
|----------|----------------------------|-----|-------|------|-----------|--------|
| 128-37-0 | 2,6-Di-tert-butyl-p-cresol | - | 10 | | TWA (8 h) | REL |
| 80-62-6 | Methyl methacrylate | 100 | 410 | | TWA (8 h) | PEL |
| | | 100 | 410 | | TWA (8 h) | REL |

Exposure controls









Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fume/vapor/spray.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Recommended glove articles KCL Butyl Breakthrough time: 60 min Butyl caoutchouc (butyl rubber) / Breakthrough time: 8 min

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Provide adequate ventilation as well as local exhaustion at critical locations.

9. Physical and chemical properties

Information on basic physical and chemical properties

| Physical state: Color: | Liquid | |
|---|----------------|--|
| Changes in the physical state | | |
| Melting point/freezing point: | not determined | |
| Boiling point or initial boiling point and boiling range: | 101 °C | |
| Flash point: | 10 °C | |
| Flammability Solid/liquid: | not applicable | |



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| Gas: | not applicable | |
| Lower explosion limits: | 2,1 vol. % | |
| Upper explosion limits: | 12,5 vol. % | |
| Self-ignition temperature | | |
| Solid: | not applicable | |
| Gas: | not applicable | |
| Decomposition temperature: | not determined | |
| pH-Value: | not determined | |
| Water solubility: | The study does not need to be conducted | |
| | because the substance is known to be | |
| | insoluble in water. | |
| Solubility in other solvents not determined | | |
| Partition coefficient n-octanol/water: | not determined | |
| Vapor pressure: | not determined | |
| Density (at 20 °C): | 1,13 g/cm³ | |
| Relative vapour density: | not determined | |
| Other information | | |
| Information with regard to physical hazard | l classes | |
| Oxidizing properties | | |
| Not oxidising. | | |
| Other safety characteristics | | |
| Solid content: | not determined | |
| Evaporation rate: | not determined | |

Reactivity

Highly flammable.

Chemical stability

The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

No known hazardous reactions.

Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapors may form explosive mixtures with air.

Incompatible materials

No information available.

Hazardous decomposition products

No known hazardous decomposition products.

11. Toxicological information

Information on toxicological effects



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Acute toxicity

| CAS No | Components | | | | |
|------------------|--|----------------------|---------|--------|--------|
| | Exposure route | Dose | Species | Source | Method |
| 80-62-6 | methyl methacrylate | | | | |
| | dermal | LD50 > 5000 mg/kg | | | |
| 1245638-61- 2 | 2-Propenoic acid, reaction products with pentaerythritol | | | | |
| | oral | ATE 500 mg/kg | | | |
| 868-77-9 | 2-hydroxyethyl methacrylate | | | | |
| | oral | LD50 5050 mg/kg | Rat | | |

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

12. Ecological information

Ecotoxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CAS No Components

| 0/10/110 | Componente | | | | | | |
|----------|-----------------------------|------|----------|-----------|------------------------|--------|--------|
| | Aquatic toxicity | Dose | | [h] [d] | Species | Source | Method |
| 868-77-9 | 2-hydroxyethyl methacrylate | | | | | | |
| | Acute fish toxicity | LC50 | 227 mg/l | | Pimephales promelas | | |

Persistence and degradability

The product has not been tested.

Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

| CAS No | Components | Log Pow |
|----------|-----------------------------|---------|
| 868-77-9 | 2-hydroxyethyl methacrylate | 0,47 |

Mobility in soil

The product has not been tested.

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

13. Disposal considerations

Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste



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according to applicable legislation.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

14. Transport information

| Marine transport (IMDG) | |
|--|--|
| UN number or ID number: | UN 1993 |
| UN proper shipping name: | FLAMMABLE LIQUID, N.O.S. (methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; urethanacrylat oligomer) |
| Transport hazard class(es): | 3 |
| Packing group: | ll |
| Hazard label: | 3 |
| | 3 |
| Special Provisions: | 274 |
| Limited quantity: | 1 L |
| Excepted quantity: | E2 |
| EmS: | F-E, S-E |
| Air transport (ICAO-TI/IATA-DGR) | |
| UN number or ID number: | UN 1993 |
| UN proper shipping name: | FLAMMABLE LIQUID, N.O.S. (methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; urethanacrylat oligomer) |
| <u>Transport hazard class(es):</u> | 3 |
| Packing group: | ll |
| Hazard label: | 3 |
| Special Provisions: | A3 |
| Limited quantity Passenger: | 1 L |
| Passenger LQ: | Y341 |
| Excepted quantity: | E2 |
| IATA-packing instructions - Passenger: | 353 |
| IATA-max. quantity - Passenger: | 5 L |
| IATA-packing instructions - Cargo: | 364 |
| IATA-max. quantity - Cargo: | 60 L |
| Environmental hazards | |
| ENVIRONMENTALLY HAZARDOUS: | No |
| Special precautions for user | |
| Warning: Combustible liquid. | |
| Transport in bulk according to Annex II of I | MARPOL 73/78 and the IBC Code |
| not applicable | |
| 15. Regulatory information | |

National regulatory information



according to UN GHS (ST/SG/AC.10/11/Rev.8)

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Employment restrictions: Skin resorption/Sensitization: Observe employment restrictions for young people. Causes allergic hypersensitivity reactions.

16. Other information

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 Harmonized 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 LC50: Lethal concentration, 50% LD50: Lethal dose, 50%

Other data

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)