## **SAFETY DATA SHEETS**

# This SDS packet was issued with item: 074567145

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).

074565271 074565339 074565347 074565354 074567004 074567012 074567020 074567038 074567046 074567053 074567061 074567079 074567087 074567095 074567103 074567111 074567129 074567137 074567210 074567509 074567517 074567525 074567533 074567541 074567558 074567707 074567715 074567723 074567731 074567749 273004835 273004836

Heraeus Kulzer Mitsui Chemicals Group

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## Safety Data Sheet acc. to OSHA HCS

Printing date 05/12/2015	Reviewed on 05/12/201
1 Identification	
· Product identifier	
<ul> <li>Trade name; VENUS Diamond flow</li> </ul>	
• Relevant identified uses of the substance or m No further relevant information available.	ixture and uses advised against
<ul> <li>Application of the substance / the mixture D</li> </ul>	ental filling material
Details of the supplier of the safety data sheet Manufacturer/Supplier: Heraeus Kuizer GmbH Grüner Weg 11, D-63450 Hanau	Tel.: 0800 437252
<ul> <li>Information department: Marc Henn Tel. +1 (574) 2995444 / Fax: +1 (574) 2912542 e-mail: marc.henn@kulzer-dental.com</li> <li>Emergency telephone number: Emergency CONTACT (24-Hour-Number) GBK/Infotrac ID 105860: (domestic) 1 800 535 50</li> </ul>	
2 Hazard(s) identification	
· Classification of the substance or mixture	an na hAnna an an ann an ann an ann an ann ann
Skin Irrit. 2 H315 Causes skin irritation.	
Eye Irrit. 2A H319 Causes serious eye irritation.	
GHS label elements The product is classified and labeled according Hazard pictograms GHS07	to the Globally Harmonized System (GHS).
<ul> <li>Signal word Warning</li> <li>Hazard statements</li> <li>Causes skin irritation.</li> <li>Causes serious eye irritation.</li> </ul>	
<ul> <li>Precautionary statements         Wear protective gloves/protective clothing/e         IF IN EYES: Rinse cautiously with water         present and easy to do. Continue rinsing.         Specific treatment (see on this label).         Take off contaminated clothing and wash be         If skin irritation occurs: Get medical advice/a         If eye irritation persists: Get medical advice/a         </li> </ul>	for several minutes. Remove contact lenses, i fore reuse. ittention.
Classification system NFPA ratings for USA (scale 0-4)	
Health = 0	
$\begin{array}{c c} & Fire = 1 \\ \hline & Reactivity = 0 \end{array}$	
$\checkmark$ $\checkmark$ $\cdot$	(Contd. on page 2

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Safety Data Sheet acc. to OSHA HCS

Printing date 05/12/2015

Reviewed on 05/12/2015

#### Trade name: VENUS Diamond flow (Contd. of page 1) · HMIS-Ratings (Scale 0-4) HEALTH 0 Health = 0FIRE 1 Fire = 1REACTIVITY | Reactivity = 0 Results of PBT and vPvB assessment · PBT: Not applicable. · vPvB: Not applicable. 3 Composition/information on ingredients **Chemical characterization: Mixtures** Description: -· Dangerous components: Void 4 First-aid measures Description of first aid measures General information No special measures required. · After inhalation Supply fresh air; consult doctor in case of complaints. • After skin contact Immediately wash with water and soap and rinse thoroughly. • After eye contact Rinse opened eye for several minutes under running water. After swallowing Rinse out mouth and then drink plenty of water. · 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 CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. 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. · Additional information -6 Accidental release measures · Personal precautions, protective equipment and emergency procedures Not required. · Environmental precautions: No special measures required. · Methods and material for containment and cleaning up: Pick up mechanically. Reference to other sections See Section 13 for disposal information. See Section 8 for information on personal protection equipment. 7 Handling and storage · Precautions for safe handling No special measures required. (Contd. on page 3) USA

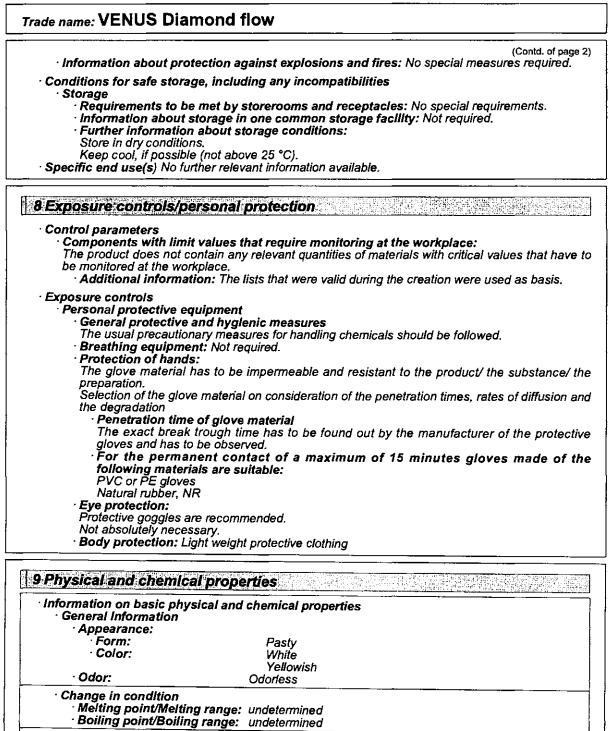
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#### Safety Data Sheet acc. to OSHA HCS

Printing date 05/12/2015

Reviewed on 05/12/2015



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#### Safety Data Sheet acc. to OSHA HCS

Printing date 05/12/2015

Reviewed on 05/12/2015

### Trade name: VENUS Diamond flow

	(Contd. of page 3
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Density at 20 °C (68 °F):	1.9 g/cm³ (15.856 lbs/gal)
<ul> <li>Solubility in / Miscibility</li> <li>Water:</li> <li>Other information</li> </ul>	with Not miscible or difficult to mix No further relevant information available.

#### 10 Stability and reactivity

· 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: none
  - Additional information:

#### 11 Toxicological information

#### Information on toxicological effects

- Acute toxicity:
  - · Primary irritant effect:

on the skin: No irritant effect. on the eye: No irritating effect. Sensitization: No sensitizing effects known.

#### Additional toxicological information:

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

#### · Carcinogenic categories

<ul> <li>IARC (International Agency for Research on Cancer)</li> </ul>	·IARC	(International	Agency	for Research	on Cancer)
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7631-86-9 silicon dioxide, chemically prepared

Butyl-hydroxy-toluol

#### NTP (National Toxicology Program)

None of the ingredients is listed.

#### · OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

#### 12 Ecological information

#### · Toxicity

- Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
  - Additional ecological information:
- · General notes: Avoid transfer into the environment. · Results of PBT and vPvB assessment
- - · PBT: Not applicable.
  - · vPvB: Not applicable.

(Contd. on page 5) USA

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#### Safety Data Sheet acc. to OSHA HCS

Printing date 05/12/2015

Reviewed on 05/12/2015

## Trade name: VENUS Diamond flow

(Contd. of page 5) · Signal word Warning · Hazard statements Causes skin irritation. Causes serious eye irritation. Precautionary statements Wear protective gloves/protective clothing/eye protection/face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Specific treatment (see on this label). Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Chemical safety assessment: A Chemical Safety Assessment has not been carried out. 16 Other information These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. Date of preparation / last revision 05/12/2015 / - Date of preparation / last revision 05/12/2015/ 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
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 ACGIH: American Conference of Governmental Industrial Hygienists
 EUNEOS: European Inventor of Governmental Industrial Hygienists
 EUNEOS: European Inventor of Section Conference of Covernmental Council Substances 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) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2 Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A • \* Data compared to the previous version altered. USA

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#### Safety Data Sheet acc. to OSHA HCS

Printing date 05/12/2015

Reviewed on 05/12/2015

### Trade name: VENUS Diamond flow

(Contd. of page 4)

· Other adverse effects No further relevant information available.

#### 13 Disposal considerations

· Waste treatment methods

Recommendation Smaller quantities can be disposed of with household waste.

· Uncleaned packagings:

· Recommendation: Disposal must be made according to official regulations.

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.	
Transport in bulk according to Annex II MARPOL73/78 and the IBC Code	of Not applicable.	
· Transport/Additional information:	-	
· UN "Model Regulation":	-	

#### 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.

· TSCA (Toxic Substances Control Act) Medical devices are exempted from TSCA.

#### · Cancerogenity categories

· TLV (Threshold Limit Value established by ACGIH)

Butyl-hydroxy-toluol

A4

### GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS). Hazard pictograms

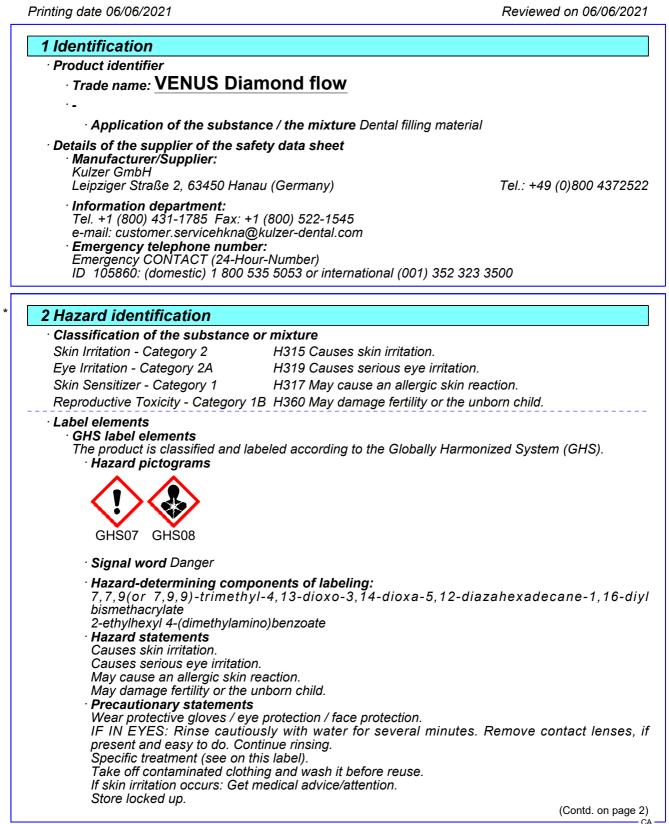
GHS07

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## Safety Data Sheet according to HPR, Schedule 1





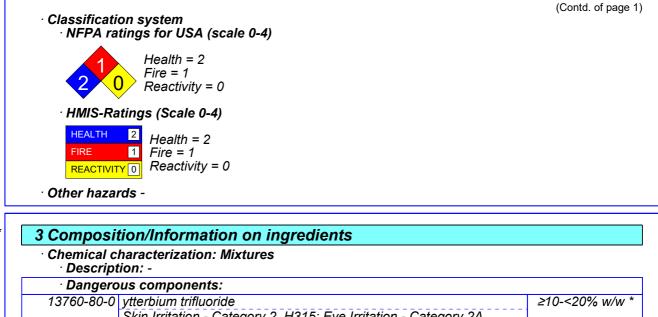
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## Safety Data Sheet according to HPR, Schedule 1

Printing date 06/06/2021

Reviewed on 06/06/2021

## Trade name: VENUS Diamond flow



	us components:	
	ytterbium trifluoride	<i>≥</i> 10-<20% w/w *
	Skin Irritation - Category 2, H315; Eye Irritation - Category 2A, H319; Specific Target Organ Toxicity - Single Exposure - Category 3, H335	
72869-86-4	7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12- diazahexadecane-1,16-diyl bismethacrylate	10-25% w/w *
	Skin Sensitizer - Category 1B, H317	
21245-02-3	2-ethylhexyl 4-(dimethylamino)benzoate	<i>≥</i> 0.1-<0.2% w/w *
	Reproductive Toxicity - Category 1B, H360	
* Actual o	concentration ranges are withheld as a trade secret.	

### 4 First-aid measures

<sup>•</sup> Description of first aid measures

- · General information No special measures required.
- After inhalation Supply fresh air; consult doctor in case of complaints.
- After skin contact immediately wash with water and soap and rinse thoroughly.
- After eye contact Rinse opened eye for several minutes under running water.
- After swallowing
- Rinse out mouth and then drink plenty of water.
- If symptoms persist consult doctor.
- 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.

(Contd. on page 3)

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## Safety Data Sheet according to HPR, Schedule 1

Printing date 06/06/2021

Reviewed on 06/06/2021

## Trade name: VENUS Diamond flow

(Contd. of page 2)

#### 5 Fire-fighting measures

#### · Extinguishing media

- Suitable extinguishing agents
  - CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- 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.
- · Additional information -

#### 6 Accidental release measures

• Personal precautions, protective equipment and emergency procedures Not required. • Environmental precautions: No special measures required.

- Methods and material for containment and cleaning up: Pick up mechanically.
- Reference to other sections
- See Section 13 for disposal information.
- See Section 8 for information on personal protection equipment.

#### 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.

- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:
- Store in dry conditions.
- Keep cool, if possible (not above 25 °C).

· Specific end use(s) No further relevant information available.

#### 8 Exposure controls/ Personal protection

Control parameters

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- Not required.
  - 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.
- · Breathing equipment: Not required.

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## Safety Data Sheet according to HPR, Schedule 1

Printing date 06/06/2021 Reviewed on 06/06/2021 Trade name: VENUS Diamond flow (Contd. of page 3) · Protection of hands: The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation Check protective gloves prior to each use for their proper condition. recommended Material of 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 can not 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. · For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable: Butyl rubber, BR Nitrile rubber, NBR • Eye protection: Safety glasses · Body protection: Light weight protective clothing 9 Physical and chemical properties · Information on basic physical and chemical properties General Information Appearance: Form: Pastv · Color: White Yellowish · Odor: Odorless · Odor threshold: Not determined. Not determined. · pH-value: · Change in condition Melting point/Melting range: undetermined Boiling point/Boiling range: undetermined > 100 °C (> 212 °F) · Flash point: · Flammability (solid, gaseous) Not applicable. · Decomposition temperature: Not determined. Product is not selfigniting. · Auto igniting: · Danger of explosion: Product does not present an explosion hazard. · Explosion limits: Not determined. Lower: · Upper: Not determined. · Vapor pressure: Not determined. · Density at 20 °C (68 °F): 1.9 g/cm<sup>3</sup> (15.8555 lbs/gal) · Relative density Not determined. · Vapor density Not determined. (Contd. on page 5)



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## Safety Data Sheet according to HPR, Schedule 1

Printing date 06/06/2021

Reviewed on 06/06/2021

## Trade name: VENUS Diamond flow

• Evaporation rate	Not determined.	
Solubility in / Miscibility with Water:	h Not miscible or difficult to mix	
· Partition coefficient (n-octai	nol/water): Not determined.	
<ul> <li>Viscosity:</li> <li>dynamic:</li> <li>kinematic:</li> </ul>	Not determined. Not determined.	
Other information	No further relevant information available.	

#### 10 Stability and reactivity

- · Reactivity No further relevant information available.
- · 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: none
- · Additional information: -

#### 11 Toxicological information

· Information on toxicological effects

• Acute toxicity:

· LD/LC50 values that are relevant for classification:

- 41637-38-1 (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyloxy-2,1-ethanediyl) bismethacrylate
- Oral LD50 >2,000 mg/kg (rat) (OECD 423) read-across
- Dermal LD50 >2,000 mg/kg (rat) (OECD 402)
  - read-across

## 72869-86-4 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate

- Oral LD50 >5,000 mg/kg (rat) (OECD 401)
- Dermal LD50 >2,000 mg/kg (rat) (OECD 402)

21245-02-3 2-ethylhexyl 4-(dimethylamino)benzoate

- Oral LD50 14,900 mg/kg (rat)
  - · Primary irritant effect:
    - on the skin: No irritant effect.
    - on the eye: No irritating effect.
  - Sensitization: No sensitizing effects known.

#### Additional toxicological information:

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: When used and handled according to specifications, the product does not have any harmful

effects according to our experience and the information provided to us.

#### · Carcinogenic categories

<ul> <li>IARC (International Agency for Research on Cancer)</li> </ul>
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7631-86-9 silicon dioxide, chemically prepared

(Contd. on page 6)

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## Safety Data Sheet according to HPR, Schedule 1

Printing date 06/06/2021

Reviewed on 06/06/2021

### Trade name: VENUS Diamond flow

128-37-0 2,6-di-tert-butyl-p-cresol

• NTP (National Toxicology Program)

None of the ingredients is listed.

· Reproductive toxicity

21245-02-3 2-ethylhexyl 4-(dimethylamino)benzoate

Oral NOAEL (Fruchtbarkeit) 50 mg/kg/d /64 d (rat) (OECD 421)

<ul> <li>Toxicity</li> </ul>	
· Aquatio	toxicity:
41637-38-1	l (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyloxy-2,1-ethanediy bismethacrylate
EC50/72h	>100 mg/l (algae) (OECD 201)
EC50/48h	>100 mg/l (daphnia) (OECD 202)
LC50/96h	>100 mg/l (fish) (OECD 203)
NOEC 28d	14.3 mg/l (bacteria)
72869-86-4	7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-di bismethacrylate
LC50/96h	10.1 mg/l (fish)
Behavior i Bioaccu Mobility Additional Genera Results of PBT: No	te and degradability No further relevant information available. n environmental systems: umulative potential No further relevant information available. v in soil No further relevant information available. ecological information: I notes: Avoid transfer into the environment. PBT and vPvB assessment ot applicable. Not applicable.

· Waste treatment methods

#### · Recommendation

Small quantities can be polymerized by light and the cured solid material can be disposed of with the regular garbage. Larger quantities must be disposed of following the regulations of the local authorities.

#### Uncleaned packagings:

· Recommendation: Disposal must be made according to official regulations.

### 14 Transport information

#### · UN-Number

DOT/TDG, ADR, ADN, IMDG, IATA

Void

(Contd. on page 7)



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#### Safety Data Sheet according to HPR, Schedule 1

Printing date 06/06/2021

Reviewed on 06/06/2021

## Trade name: VENUS Diamond flow

		(Contd. of page
· UN proper shipping name · DOT/TDG, ADR, ADN, IMDG, IATA	Void	
· Transport hazard class(es)		
DOT, ADR, ADN, IMDG, IATA Class	Void	
· Packing group · DOT/TDG, ADR, IMDG, IATA	Void	
· Environmental hazards: · Marine pollutant:	No	
· Special precautions for user	Not applicable.	
<ul> <li>Transport in bulk according to Annex II MARPOL73/78 and the IBC Code</li> </ul>	l <b>of</b> Not applicable.	
· Transport/Additional information:	-	
· UN "Model Regulation":	Void	

#### 15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.

· Sara

SARA Section 355 (extremely hazardous substances)

None of the ingredients is listed.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

#### 16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

#### Relevant phrases

H315 Causes skin irritation.

- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H360 May damage fertility or the unborn child.

· Date of the latest revision of the safety data sheet 06/06/2021 / 3

Abbreviations and acronyms:

- IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation

IATA: International Air Transport Association

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)

- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification (USA) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

\* Data compared to the previous version altered.