Safety Data Sheet acc. to OSHA HCS

Printing date 06/26/2015 Reviewed on 06/26/2015 **1** Identification Product identifier Trade name: Affi-Gel® CM Cartridge · Catalog or product number: 7320005, 7320003 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available. · Application of the substance / the mixture Laboratory chemicals · Details of the supplier of the safety data sheet · Manufacturer/Supplier: Bio-Rad Laboratories, Life Science Group 2000 Alfred Nobel Drive Hercules, California 94547 (510)741-1000 · Information department: Technical services, customer support lsg techserv us@bio-rad.com · Emergency telephone number: 1(800)424-9300 Use only in the event of a CHEMICAL EMERGENCY involving a SPILL, LEAK, FIRE, EXPLOSION or ACCIDENT. 510-741-1000 2 Hazard(s) identification Classification of the substance or mixture

The product is not classified according to the Globally Harmonized System (GHS).

- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Additional information: Contact with acids may cause release of toxic gases
- · Other hazards
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Substances

· CAS No. Description:

72642-12-7 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer

with oxydi-2,1-ethanediyl bis(2-methyl-2-propenoate)

Chemical characterization: Mixtures

· Description: Mixture of the substances listed below with non-hazardous additions.

· Listing of dangerous and non-hazardous components:

| 72642-12-7 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with oxydi-2,1-ethanediyl bis(2-methyl | 2- 50-100% |
|--|------------|
| propenoate) | |
| 7732-18-5 water | 35-50% |

(Contd. on page 2) US

Safety Data Sheet acc. to OSHA HCS

Printing date 06/26/2015

Reviewed on 06/26/2015

(Contd. of page 1)

Trade name: Affi-Gel® CM Cartridge

· Additional information For the wording of the listed risk phrases refer to section 15.

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 Generally the product does not irritate the skin.
- · After eye contact Rinse opened eye for several minutes under running water.
- After swallowing Induce vomiting and call for medical help.
- · 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
- CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- 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 Wear protective clothing.
- · Environmental precautions: No special measures required.
- · Methods and material for containment and cleaning up: Pick up mechanically.
- · Reference to other sections
- No dangerous substances are released.
- See Section 7 for information on safe handling
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

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: According to product specification
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.

(Contd. on page 3)

US

Safety Data Sheet acc. to OSHA HCS

Printing date 06/26/2015

Reviewed on 06/26/2015

Trade name: Affi-Gel® CM Cartridge

(Contd. of page 2)

· 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:
- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment
- · General protective and hygienic measures The usual precautionary measures for handling chemicals should be followed.
- · Protection of hands: Protective gloves.
- · Material of gloves Synthetic gloves
- · 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.
- · Eye protection: Safety glasses

| Information on basic physical and General Information | chemical properties | |
|--|---|--|
| Appearance: | | |
| Form: | Solid | |
| Color: | White | |
| Odor: | Odorless | |
| Odour threshold: | Not determined. | |
| pH-value: | Not applicable. | |
| Change in condition | | |
| Melting point/Melting range: | x °C | |
| Boiling point/Boiling range: | undetermined | |
| Flash point: | Not applicable | |
| Flammability (solid, gaseous) | Not determined. | |
| Ignition temperature: | | |
| Decomposition temperature: | Not determined. | |
| Auto igniting: | Product is not selfigniting. | |
| Danger of explosion: | Product does not present an explosion hazard. | |
| Explosion limits: | | |
| Lower: | Not determined. | |
| Upper: | Not determined. | |
| Vapor pressure at 20 °C: | 23 hPa | |

Safety Data Sheet acc. to OSHA HCS

Printing date 06/26/2015

Reviewed on 06/26/2015

Trade name: Affi-Gel® CM Cartridge

| | | (Contd. of page 3 |
|----------------------------------|--|-------------------|
| · Density: | Not determined | |
| · Relative density | Not determined. | |
| · Vapour density | Not applicable. | |
| · Evaporation rate | Not applicable. | |
| Solubility in / Miscibility with | | |
| Water: | Insoluble | |
| Partition coefficient (n-octano | /water): Not determined. | |
| Viscosity: | | |
| dynamic: | Not applicable. | |
| kinematic: | Not applicable. | |
| Solvent content: | | |
| Organic solvents: | 0.0 % | |
| Water: | 40.0 % | |
| Solids content: | 100.0 % | |
| Other information | No further relevant information available. | |

10 Stability and reactivity

- · Reactivity
- · Chemical stability
- 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 irritant 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

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

(Contd. on page 5)

Safety Data Sheet acc. to OSHA HCS

Printing date 06/26/2015

Trade name: Affi-Gel® CM Cartridge

(Contd. of page 4)

Reviewed on 06/26/2015

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Target organs: Not applicable.

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: Generally not hazardous for water.
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation Hand over to hazardous waste disposers.
- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

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 | |
| | | (Contd. on page 6) |

Safety Data Sheet acc. to OSHA HCS

Page 6/7

Printing date 06/26/2015

Reviewed on 06/26/2015

(Contd. of page 5)

Trade name: Affi-Gel® CM Cartridge

· Special precautions for user

Not applicable.

Not applicable.

Not dangerous according to the above specifications.

Transport in bulk according to Annex II of MARPOL73/78
 and the IBC Code

· Transport/Additional information:

· UN "Model Regulation":

15 Regulatory information

• Safety, health and environmental regulations/legislation specific for the substance or mixture • SARA (Superfund Amendents and Reauthorization Act of 1986 - USA)

• Section 302/304 (40CFR355.30 / 40CFR355.40):

None of the ingredients is listed.

Section 313 (40CFR372.65):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

- 7732-18-5 water
- · Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

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

None of the ingredients is listed.

· National regulations

- · Water hazard class: Generally not hazardous for water.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

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

· Department issuing SDS: Environmental Health and Safety.

· Contact:

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000 · Date of preparation / last revision 06/26/2015 / -

US

BIO-RAD

Safety Data Sheet acc. to OSHA HCS

Printing date 06/26/2015

Trade name: Affi-Gel® CM Cartridge

· 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

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)

• * Data compared to the previous version altered.

Reviewed on 06/26/2015

(Contd. of page 6)

Page 7/7



us