Safety Data Sheet acc. to OSHA HCS

Page 1/8

Printing date 04/14/2016

Reviewed on 09/14/2015

1 Identification

- · Product identifier
- · Trade name: <u>Bio-Safe™ Coomassie Stain</u>
- Catalog or product number: 1610786, 1610787, 1610786S, 1610787EDU, 9704607, 4307131, 4307045, 1610786EDU
 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: Mixtures

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

| · Listing of dangerous and non-hazardous components: | | | | | |
|--|------------|---|----------|--|--|
| 7664-38-2 phosph | horic acid | Skin Corr. 1B, H314 | 2.5-5% | | |
| 67-56-1 methar | | Flam. Liq. 2, H225 Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331 STOT SE 1, H370 | 0.1-1.0% | | |
| 7732-18-5 water | | | 50-100% | | |

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

(Contd. on page 2)



Safety Data Sheet acc. to OSHA HCS

Printing date 04/14/2016

Reviewed on 09/14/2015

Trade name: Bio-Safe™ Coomassie Stain

(Contd. of page 1)

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:
- Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

- · Methods and material for containment and cleaning up:
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- 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)

119

Safety Data Sheet acc. to OSHA HCS

RIO-RAD

Printing date 04/14/2016

Trade name: Bio-Safe™ Coomassie Stain

· 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: | | | | |
|--|--|--|--|--|
| 7664-38-2 phosphoric acid | | | | |
| PEL Long-term value: 1 mg/m ³ | | | | |
| REL Short-term value: 3 mg/m ³ | | | | |
| Long-term value: 1 mg/m³ | | | | |
| TLV Short-term value: 3 mg/m ³ | | | | |
| Long-term value: 1 mg/m ³ | | | | |
| 67-56-1 methanol | | | | |
| PEL Long-term value: 260 mg/m³, 200 ppm | | | | |
| REL Short-term value: 325 mg/m ³ , 250 ppm | | | | |
| Long-term value: 260 mg/m³, 200 ppm | | | | |
| Skin | | | | |
| TLV Short-term value: 328 mg/m ³ , 250 ppm | | | | |
| Long-term value: 262 mg/m³, 200 ppm | | | | |
| Skin; BEI | | | | |
| 64-17-5 ethanol | | | | |
| PEL Long-term value: 1900 mg/m³, 1000 ppm | | | | |
| REL Long-term value: 1900 mg/m³, 1000 ppm | | | | |
| TLV Short-term value: 1880 mg/m³, 1000 ppm | | | | |
| · Ingredients with biological limit values: | | | | |
| 67-56-1 methanol | | | | |
| BEI 15 mg/L | | | | |
| Medium: urine | | | | |
| Time: end of shift | | | | |
| Parameter: Methanol (background, nonspecific) | | | | |
| · 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. | | | | |
| · Breathing equipment: Not required. | | | | |
| Protection of hands: Protective gloves. Material of gloves Synthetic gloves | | | | |
| · Penetration time of alove material | | | | |

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

(Contd. of page 2)

Reviewed on 09/14/2015

(Contd. on page 4)

US

.....

-

Safety Data Sheet acc. to OSHA HCS

BIO RAD

Page 4/8

(Contd. of page 3)

Reviewed on 09/14/2015

Printing date 04/14/2016

Trade name: Bio-Safe™ Coomassie Stain

| Physical and chemical prope | erties |
|-------------------------------------|---|
| Information on basic physical and | chemical properties |
| General Information | chemical properties |
| Appearance: | |
| Form: | Liquid |
| Color: | Blue |
| Odor: | Acrid |
| Odor threshold: | Not determined. |
| pH-value: | Not determined. |
| Change in condition | |
| Melting point/Melting range: | undetermined |
| Boiling point/Boiling range: | undetermined |
| Flash point: | Not applicable |
| Flammability (solid, gaseous) | Not applicable. |
| 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 |
| Density: | Not determined |
| Relative density | Not determined. |
| Vapor density | Not determined. |
| Evaporation rate | Not determined. |
| Solubility in / Miscibility with | |
| Water: | Fully miscible |
| Partition coefficient (n-octanol/wa | ter): Not determined. |
| Viscosity: | |
| dynamic: | Not determined. |
| kinematic: | Not determined. |
| Solvent content: | |
| Organic solvents: | 1.1 % |
| Water: | 93.9 % |
| Other information | No further relevant information available. |

10 Stability and reactivity

· Reactivity No further relevant information available.

(Contd. on page 5)

US

Safety Data Sheet acc. to OSHA HCS

Printing date 04/14/2016

Trade name: Bio-Safe™ Coomassie Stain

Reviewed on 09/14/2015

(Contd. of page 4)

· 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:
- · LD/LC50 values for hazardous components per OSHA criteria:

67-56-1 methanol

 Oral
 LD50
 5628 mg/kg (rat)

 Dermal
 LD50
 20000 mg/kg (rat)

Definal LDS0 20000 mg/kg (18

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) | |
|---|---|
| 64-17-5 ethanol | 1 |
| · 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:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Safety Data Sheet acc. to OSHA HCS

Printing date 04/14/2016

Reviewed on 09/14/2015

Trade name: Bio-Safe™ Coomassie Stain

(Contd. of page 5)

· 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.

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

 \cdot **Recommendation:** Disposal must be made according to official regulations.

· Recommended cleansing agent: Water, if necessary with cleansing agents.

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 | |
| · Special precautions for user | Not applicable. | |
| Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. | | |
| · Transport/Additional information: | Not dangerous according to the above specifications. | |
| · UN "Model Regulation": | Void | |

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.

(Contd. on page 7)

Page 6/8

Safety Data Sheet acc. to OSHA HCS

Page 7/8

Printing date 04/14/2016

Reviewed on 09/14/2015

Trade name: Bio-Safe™ Coomassie Stain

| | | | (Contd. of page 6) |
|---------------------------|-------------------------------|---|--------------------|
| Section 313 (40CFR | 372.65): | | |
| 67-56-1 methanol | | | |
| TSCA (Toxic Substa | ces Control Act): | | |
| All ingredients are liste | d. | | |
| California Propositio | n 65: | | |
| Developmental Toxic | ity | | |
| 67-56-1 methanol | | | |
| 64-17-5 ethanol | | | |
| Carcinogenic catego | ries | | |
| EPA (Environmental | | | |
| None of the ingredient | C D | | |
| TLV (Threshold Limi | Value established by ACGIH |) | |
| 64-17-5 ethanol | | | A3 |
| | um Workplace Concentration | <u>, , , , , , , , , , , , , , , , , , , </u> | |
| 64-17-5 ethanol | | ' ' | 5 |
| | nstitute for Occupational Saf | aty and Haalth) | |
| None of the ingredient | - | ely and Health) | |
| | 5 15 listeu. | | |
| National regulations | | | |
| Technical instruction | s (air): | | |
| Class Share in % | | | |
| I 0.1-1.0 | | | |
| NK 0.01-0.1 | | | |

· Water hazard class: Water hazard class 1 (Self-assessment): slightly 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 04/14/2016 / -

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

US

Safety Data Sheet acc. to OSHA HCS

BIO-RAD

Printing date 04/14/2016

Trade name: Bio-Safe™ Coomassie Stain

CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit BEI: Biological Exposure Limit Flam. Liq. 2: Flammable liquids, Hazard Category 2 Acute Tox. 3: Acute toxicity, Hazard Category 3 Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1

* * Data compared to the previous version altered.

Reviewed on 09/14/2015

(Contd. of page 7)

US

Page 8/8