



06/03/2015

Kit Components

Product code	Description
2700807	Variant Hb Program Retention Time Marker Kit

Components:

2700804	Variant Hb Pgm Hemolysis Reagent, RTM Diluent
35497	Variant Hb Retention Time Marker Unlabeled

Safety Data Sheet
acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 05/27/2015

1 Identification

- **Product identifier**
- **Trade name:** Variant Hb Pgm Hemolysis Reagent, RTM Diluent
- **Catalog or product number:** 2700804, 2700806
- **Application of the substance / the mixture** *In-vitro laboratory reagent or component*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
*Bio-Rad Laboratories, Diagnostic Group
4000 Alfred Nobel Drive
Hercules, California 94547* 1(510)724-7000
- **Information department:**
*Technical services, customer support
TechsupportUSSD@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.

2 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description:**
7732-18-5 water
- **Identification number(s):**
- **EC number:** 231-791-2
- **Chemical characterization: Mixtures**
- **Description:** *Mixture of the substances listed below with non-hazardous additions.*

Listing of dangerous and non-hazardous components:

10043-35-3	boric acid	0.01-0.1%
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- **Additional information** *For the wording of the listed risk phrases refer to section 15.*

3 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*
- **Classification system**
- **NFPA ratings (scale 0-4)**
*Health = 0
Fire = 0
Reactivity = 0*

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Trade name: Variant Hb Pgm Hemolysis Reagent, RTM Diluent

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4 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.

5 Fire-fighting measures

- **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.
- **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.
- **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.
- **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.

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Trade name: Variant Hb Pgm Hemolysis Reagent, RTM Diluent

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· Components with limit values that require monitoring at the workplace:

10043-35-3 boric acid

TLV (United States)	Short-term value: 6* mg/m ³ Long-term value: 2* mg/m ³ *as inhalable fraction
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- **Additional information:** The lists that were valid during the creation were used as basis.
- **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:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
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

9 Physical and chemical properties

· General Information

· Appearance:

Form:	Liquid
Color:	Colorless
Odor:	Odorless
Odour threshold:	Not determined.

· pH-value at 20 °C: 7.8

· Change in condition

Melting point/Melting range:	0 °C
Boiling point/Boiling range:	100 °C

· 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.
· Vapour density	Not determined.

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Trade name: Variant Hb Pgm Hemolysis Reagent, RTM Diluent

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· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
Water:	99.9 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

11 Toxicological information

- **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.
- **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

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.

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Trade name: Variant Hb Pgm Hemolysis Reagent, RTM Diluent

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- **Behavior in environmental systems:**
- **Bioaccumulative potential** 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.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **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) | |
| · 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. |

15 Regulatory information

- **SARA (Superfund Amendants and Reauthorization Act of 1986 - USA)**

- **Section 302/304 (40CFR355.30 / 40CFR355.40):**

151-50-8 | potassium cyanide

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Trade name: Variant Hb Pgm Hemolysis Reagent, RTM Diluent

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· **Section 313 (40CFR372.65):**

151-50-8	potassium cyanide
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· **TSCA (Toxic Substances Control Act):**

10043-35-3	boric acid
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151-50-8	potassium cyanide
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7732-18-5	water
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· **California Proposition 65:**

· **Developmental Toxicity**

32986-56-4	tobramycin
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1405-41-0	Gentamicin Sulfate
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· **National regulations**

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

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** 06/03/2015 / -

· **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

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)

· *** Data compared to the previous version altered.**

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

1 Identification

- **Product identifier**
- **Trade name:** Variant Hb Retention Time Marker Unlabeled
- **Catalog or product number:** 35497
- **Application of the substance / the mixture** *In-vitro laboratory reagent or component*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Bio-Rad Laboratories, Diagnostic Group
4000 Alfred Nobel Drive
Hercules, California 94547
- 1(510)724-7000
- **Information department:**
Technical services, customer support
TechsupportUSSD@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.

2 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description:**
57-50-1 sucrose, pure
- **Identification number(s):**
- **EC number:** 200-334-9
- **Additional information:** *Contains human sourced and/or potentially infectious components.*
- **Chemical characterization: Mixtures**
- **Description:** *Mixture of the substances listed below with non-hazardous additions.*
- **Listing of dangerous and non-hazardous components:** *Void*
- **Additional information** *For the wording of the listed risk phrases refer to section 15.*

3 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*
- **Classification system**
- **NFPA ratings (scale 0-4)**
Health = 0
Fire = 0
Reactivity = 0

4 First-aid measures

- **General information** *No special measures required.*

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Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: Variant Hb Retention Time Marker Unlabeled

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- **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.

5 Fire-fighting measures

- **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.
- **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:** Disinfectant
- **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.
- **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.
- **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.
- **Components with limit values that require monitoring at the workplace:**

57-50-1 sucrose, pure

PEL (United States)	15* 5** mg/m ³ *total dust **respirable fraction
REL (United States)	10* 5** mg/m ³ *total dust **respirable fraction
TLV (United States)	10 mg/m ³

- **Additional information:** The lists that were valid during the creation were used as basis.

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Trade name: Variant Hb Retention Time Marker Unlabeled

(Contd. of page 2)

- **Personal protective equipment**
- **General protective and hygienic measures**
Follow the usual biosafety practices for handling potentially infectious materials.
- **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

9 Physical and chemical properties

- **General Information**
- **Appearance:**
 - Form: Granulate
 - Color: White
- **Odor:** Odorless
- **Odour threshold:** Not determined.
- **pH-value:** Not applicable.
- **Change in condition**
 - Melting point/Melting range: undetermined
 - 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:** Not applicable.
- **Density at 20 °C:** 0.94 g/cm³
- **Relative density** Not determined.
- **Vapour density** Not applicable.
- **Evaporation rate** Not applicable.
- **Solubility in / Miscibility with Water:** Fully miscible
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - dynamic: Not applicable.
 - kinematic: Not applicable.

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Trade name: Variant Hb Retention Time Marker Unlabeled

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- **Solvent content:**
- Organic solvents:** 0.0 %
- **Solids content:** 100.0 %
- **Other information:** No further relevant information available.

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

11 Toxicological information

- **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.

· **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

- **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.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water.

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Trade name: Variant Hb Retention Time Marker Unlabeled

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13 Disposal considerations

· **Waste treatment methods**

· **Recommendation**

Can be disposed of with household garbage with prior chemical-physical or biological treatment following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

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

Dispose of waste in accordance to applicable national, regional, or local regulations.

· **Uncleaned packagings:**

· **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)**

· **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.

15 Regulatory information

· **SARA (Superfund Amendments 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):**

57-50-1 sucrose, pure

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Reviewed on 06/02/2015

Trade name: Variant Hb Retention Time Marker Unlabeled

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· **California Proposition 65:**

· **Developmental Toxicity**

32986-56-4	tobramycin
1405-41-0	Gentamicin Sulfate

· **National regulations**

· **Water hazard class:** Generally not hazardous for water.

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:**

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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)

· * **Data compared to the previous version altered.**