



04/05/2010

Kit Components

Product code	Description
190-2001 190-2002 190-2100	Quantimune Ferritin IRMA 100/200/1000 Kit

Components:

190-2051	Ferritin Stds 0 5 10 25 100 250 1000 2500
190-2063	Ferritin 125I Tracer Antibody/Immunobead

Material Safety Data Sheet

Printing date 04/05/2010

Reviewed on 10/21/2009

1 Identification of substance:· **Product details:**· **Trade name:** Ferritin Stds 0 5 10 25 100 250 1000 2500· **Catalog or product number:** 190-2051, 190-2052, 190-2053, 190-2054, 190-2055, 190-2056, 190-2057, 190-2062· **Application of the substance / the preparation** In-vitro laboratory reagent or component· **Manufacturer/Supplier:**

Bio-Rad Laboratories, Diagnostic Group

4000 Alfred Nobel Drive

Hercules, California 94547

1(510)724-7000

· **Information department:** Technical services, customer support.· **Emergency information:**

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 components:· **Chemical characterization**· **Description:** Mixture of the substances listed below with non-hazardous additions.· **Listing of dangerous and non-hazardous components:**

7732-18-5	water		50-100%
94349-60-7	Albumins, bovine serum		5-10%
26628-22-8	sodium azide	T+, N; R 28-32-50/53	0.1-1.0%

· **Additional information**

Contains human sourced and/or potentially infectious components.

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

3 Hazards identification· **Emergency overview:**

Xn Harmful

· **Routes of exposure:** Ingestion· **Information pertaining to particular dangers for man and environment**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 22 Harmful if swallowed.

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

· **Classification system**

The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

The classification was made according to OSHA 29CFR 1910.1200 and 1910.1030, and is expanded upon from company and/or literature information.

· **NFPA ratings (scale 0-4)**

Health = 2

Fire = 0

Reactivity = 0

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4 First aid measures

· General information

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **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** Immediately call a doctor.

5 Fire fighting measures

· Suitable extinguishing agents

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Person-related safety precautions:** Handle as potentially infectious.

· Measures for environmental protection:

Inform respective authorities in case of seepage into water course or sewage system.
Dilute with plenty of water.

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

· Measures for cleaning/collecting:

Disinfectant

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

7 Handling and storage

· Handling

- **Information for safe handling:** No special precautions are necessary if used correctly.
- **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.

8 Exposure controls and 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:

26628-22-8 sodium azide

REL (United States) Short-term value: C 0.3** mg/m³, C 0.1* ppm
*as HN3 vapor; **as NaN3; Skin

TLV (United States) Short-term value: C 0.29** mg/m³, C 0.11* ppm
*as HN3 vapor **as NaN3

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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**
Follow the usual biosafety practices for handling potentially infectious materials.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **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
- **Body protection:** Protective work clothing.

9 Physical and chemical properties:

· **General Information**

Form:	liquid
Color:	Light brown
Odor:	Odorless

· **Change in condition**

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

· **Flash point:** Not applicable

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Vapor pressure at 20°C:** 23 hPa

· **Density:** Not determined

· **Solubility in / Miscibility with**

Water: Fully miscible

· **pH-value at 20°C:** 7.4

· **Solvent content:**

Organic solvents:	0.0 %
Water:	90.8 %

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Materials to be avoided:**
- **Dangerous reactions**
This product contains sodium azide. Sodium azide can react with copper, brass, lead, and solder in piping systems to form explosive compounds of lead azide and copper azide.

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Trade name: Ferritin Stds 0 5 10 25 100 250 1000 2500

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· **Dangerous products of decomposition:** 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 shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful

12 Ecological information:

- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **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.

Harmful to aquatic organisms

13 Disposal considerations

- **Product:**
- **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.
Flush pipes with water frequently if discarding solutions containing sodium azide into metal piping systems.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **DOT regulations:**
- **Hazard class:** -
- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -

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- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

15 Regulations

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

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

26628-22-8	sodium azide
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· **Section 313 (40CFR372.65):**

26628-22-8	sodium azide
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· **TSCA (Toxic Substances Control Act):**

7732-18-5	water
26628-22-8	sodium azide
7647-14-5	sodium chloride
7558-79-4	disodium hydrogenorthophosphate

· **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.

· **Markings according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

· **Code letter and hazard designation of product:**

Xn Harmful

· **Hazard-determining components of labelling:**

sodium azide

· **Risk phrases:**

22 Harmful if swallowed.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

· **Safety phrases:**

36 Wear suitable protective clothing.
60 This material and its container must be disposed of as hazardous waste.
61 Avoid release to the environment. Refer to special instructions/Safety data sheets

· **National regulations**

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

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Trade name: Ferritin Stds 0 5 10 25 100 250 1000 2500

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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 MSDS:** 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

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

DUS

Material Safety Data Sheet

Printing date 04/05/2010

Reviewed on 10/21/2009

1 Identification of substance:

- **Product details:**
- **Trade name:** Ferritin 125I Tracer Antibody/Immunobead
- **Catalog or product number:** 190-2063, 190-2163
- **Application of the substance / the preparation** In-vitro laboratory reagent or component
- **Manufacturer/Supplier:**
 Bio-Rad Laboratories, Diagnostic Group
 4000 Alfred Nobel Drive
 Hercules, California 94547 1(510)724-7000
- **Information department:** Technical services, customer support.
- **Emergency information:**
 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 components:

- **Chemical characterization:**
- **CAS No. Description:**
7732-18-5 water
- **Identification number(s):**
- **EINECS Number:** 231-791-2
- **Additional information:**
 Contains radioactive material.
 Contains human sourced and/or potentially infectious components.
 For the wording of the listed risk phrases refer to section 15.

· **Chemical characterization**

· **Listing of dangerous and non-hazardous components:**

26628-22-8	sodium azide	T+, N; R 28-32-50/53	0.01-0.1%
57-55-6	propane-1,2-diol		0.01-0.1%

3 Hazards identification

- **Emergency overview:**
Xn Harmful
- **Routes of exposure:** Ingestion
- **Information pertaining to particular dangers for man and environment**
R 22 Harmful if swallowed.
- **Classification system**
The classification was made according to OSHA 29CFR 1910.1200 and 1910.1030, and is expanded upon from company and/or literature information.
- **NFPA ratings (scale 0-4)**
 Health = 2
 Fire = 0
 Reactivity = 0

Material Safety Data Sheet

Printing date 04/05/2010

Reviewed on 10/21/2009

Trade name: Ferritin 125I Tracer Antibody/Immunobead

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* **4 First aid measures**· **General information**

Seek immediate medical advice.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **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** Immediately call a doctor.

* **5 Fire fighting measures**· **Suitable extinguishing agents**CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- **Protective equipment:** No special measures required.

* **6 Accidental release measures**· **Person-related safety precautions:**

Handle as potentially infectious.

Use appropriate precautions for handling radioactive materials.

- **Measures for environmental protection:** Dilute with plenty of water.

· **Measures for cleaning/collecting:**

Dispose of the collected material according to regulations.

Disinfectant

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

* **7 Handling and storage**· **Handling**

- **Information for safe handling:** No special precautions are necessary if used correctly.

- **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.

* **8 Exposure controls and 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:**

26628-22-8 sodium azide

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Material Safety Data Sheet

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Trade name: Ferritin 125I Tracer Antibody/Immunobead

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REL (United States)	Short-term value: C 0.3** mg/m ³ , C 0.1* ppm *as HN3 vapor; **as NaN ₃ ; Skin
TLV (United States)	Short-term value: C 0.29** mg/m ³ , C 0.11* ppm *as HN3 vapor **as NaN ₃

57-55-6 propane-1,2-diol

WEEL (United States)	10 mg/m ³
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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**
Follow the usual biosafety practices for handling potentially infectious materials.
Use appropriate precautions for handling radioactive materials.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **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**

Form:	liquid
Color:	Colorless
Odor:	Odorless

· **Change in condition**

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

· **Flash point:** Not applicable

· **Danger of explosion:** Product does not present an explosion hazard.

· **Vapor pressure at 20°C:** 23 hPa

· **Density at 20°C:** 1 g/cm³

· **Solubility in / Miscibility with**

Water: Fully miscible

· **pH-value at 20°C:** 7.4

· **Organic solvents:** 0.0 %

· **Water:** 97.4 %

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

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Printing date 04/05/2010

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Trade name: Ferritin 125I Tracer Antibody/Immunobead

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- **Materials to be avoided:**
- **Dangerous reactions**
This product contains sodium azide. Sodium azide can react with copper, brass, lead, and solder in piping systems to form explosive compounds of lead azide and copper azide.
- **Dangerous products of decomposition:** 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.

12 Ecological information:

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

13 Disposal considerations

- **Product:**
- **Recommendation**
Must be specially treated adhering to official regulations.
Flush pipes with water frequently if discarding solutions containing sodium azide into metal piping systems.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **DOT regulations:**
- **Hazard class:** 7
- **Identification number:** UN2910
- **Proper shipping name (technical name):** RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - LIMITED QUANTITY OF MATERIAL
- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** 7
- **UN/ID Number:** 2910

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Material Safety Data Sheet

Printing date 04/05/2010

Reviewed on 10/21/2009

Trade name: Ferritin 125I Tracer Antibody/Immunobead

(Contd. of page 4)

Proper shipping name: RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - LIMITED QUANTITY OF MATERIAL

15 Regulations

SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)

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

26628-22-8	sodium azide
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Section 313 (40CFR372.65):

26628-22-8	sodium azide
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TSCA (Toxic Substances Control Act):

7732-18-5	water
7647-14-5	sodium chloride
7558-79-4	disodium hydrogenorthophosphate
9003-06-9	poly(acrylamide-co-acrylic acid)
7778-77-0	potassium dihydrogenorthophosphate
26628-22-8	sodium azide
57-55-6	propane-1,2-diol
2783-94-0	disodium 6-hydroxy-5-[(4-sulphonatophenyl)azo]naphthalene-2-sulphonate
1934-21-0	trisodium 5-hydroxy-1-(4-sulphophenyl)-4-(4-sulphophenylazo)pyrazole-3-carboxylate

Carcinogenic categories

IARC (International Agency for Research on Cancer)

2783-94-0	disodium 6-hydroxy-5-[(4-sulphonatophenyl)azo]naphthalene-2-sulphonate	3
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NTP (National Toxicology Program)

Substance is not listed.

OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

Markings according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

Code letter and hazard designation of product:

Xn Harmful

Risk phrases:

22 Harmful if swallowed.

Safety phrases:

36 Wear suitable protective clothing.
60 This material and its container must be disposed of as hazardous waste.

National regulations

Water hazard class: Generally not hazardous for water.

DUS

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Trade name: Ferritin 125I Tracer Antibody/Immunobead

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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 MSDS:** 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

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