

04/05/2010

Kit Components

Product code	Description
183-7001EX	Quantacount T4/TFI Kit
Components:	
183-7106	Quanta Count T4/TFI Disociating Reagent
183-7105	Quanta Count T4/TFI 100 Separation Tablets
183-7104	Quanta Count T4/TFI Thyroxine Binding Reagent



Printing date 04/05/2010 Reviewed on 10/21/2009

1 Identification of substance:

- · Product details:
- · Trade name: Quanta Count T4/TFI Disociating Reagent
- · Catalog or product number: 183-7106
- · 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: For the wording of the listed risk phrases refer to section 15.

3 Hazards identification

· Emergency overview:

Corrosive.

May cause irreversible eye damage.

C Corrosive

· Information pertaining to particular dangers for man and environment

R 34 Causes burns.

· 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 = 3

Fire = 0

Reactivity = 0

4 First aid measures

- · General information Immediately remove any clothing soiled by the product.
- · After inhalation In case of unconsciousness place patient stably in side position for transportation.
- · After skin contact Immediately wash with water and soap and rinse thoroughly.
- · After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing Drink copious amounts of water and provide fresh air. Immediately call a doctor.

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Printing date 04/05/2010 Reviewed on 10/21/2009

Trade name: Quanta Count T4/TFI Disociating Reagent

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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: Wear protective equipment (See section 8). Keep unprotected persons away.
- · Measures for environmental protection: Dilute with plenty of water.
- · Measures for cleaning/collecting:

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

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

7 Handling and storage

- · Handling
- · Information for safe handling:

No special measures required.

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: Keep receptacle tightly sealed.

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:

7647-01-0 hydrochloric acid

PEL (United States) | Short-term value: C 7 mg/m³, C 5 ppm REL (United States) | Short-term value: C 7 mg/m³, C 5 ppm TLV (United States) | Short-term value: C 2.98 mg/m³, C 2 ppm

- · Additional information: The lists that were valid during the creation were used as basis.
- · Personal protective equipment
- · General protective and hygienic measures

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- · Breathing equipment: Not required.
- · Protection of hands: Protective gloves.
- · Material of gloves Synthetic gloves

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Trade name: Quanta Count T4/TFI Disociating Reagent

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· 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

Tightly sealed goggles.

9 Physical and chemical properties:	
· General Information	
Form:	liquid
Color:	Colorless
Odor:	Odorless
· Change in condition	
Melting point/Melting range:	
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:	0.5
· Organic solvents:	0.0 %

10 Stability and reactivity

- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Materials to be avoided:
- · Dangerous reactions No dangerous reactions known
- · Dangerous products of decomposition: No dangerous decomposition products known

99.8 %

11 Toxicological information

· Acute toxicity:

Water:

- · Primary irritant effect:
- · on the skin: Caustic effect on skin and mucous membranes.
- · on the eye: Strong caustic effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

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Printing date 04/05/2010 Reviewed on 10/21/2009

Trade name: Quanta Count T4/TFI Disociating Reagent

· Target organs: Skin.

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12 Ecological information:

- · Additional ecological information:
- · General notes:

Generally not hazardous for water.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

13 Disposal considerations

- · Product:
- · Recommendation Hand over to hazardous waste disposers.
- · Uncleaned packagings:
- · **Recommendation:** Disposal must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

- · Maritime transport IMDG:
- · Marine pollutant: No
- · Transport/Additional information: Contact Bio-Rad Laboratories for transportation information.

15 Regulations

- · SARA (Superfund Amendents and Reauthorization Act of 1986 USA)
- · Section 302/304 (40CFR355.30 / 40CFR355.40):

7647-01-0 hydrochloric acid

Section 313 (40CFR372.65):

7647-01-0 hydrochloric acid

· TSCA (Toxic Substances Control Act):

Substance is listed.

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

7647-01-0 hydrochloric acid

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NTP (National Toxicology Program)

Substance is not listed.

· OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

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Trade name: Quanta Count T4/TFI Disociating Reagent

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· 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:

C Corrosive

· Risk phrases:

34 Causes burns.

· Safety phrases:

When using do not eat or drink.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

In case of accident or if you feel unwell, seek medical advice immediately.

- · 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 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.

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Printing date 04/05/2010 Reviewed on 03/15/2010

1 Identification of substance:

- · Product details:
- · Trade name: Quanta Count T4/TFI 100 Separation Tablets
- · Catalog or product number: 183-7105
- · 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:			
9004-34-6	Cellulose		50-100%
7732-18-5	water		10-20%
56-40-6	glycine	Xn, Xi; R 22-36	1.0-2.5%
497-19-8	sodium carbonate	Xi; R 36	1.0-2.5%

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

3 Hazards identification

· Emergency overview:

Irritant to eyes.

Irritant to respiratory system.

Irritant to respiratory system and skin.

Xi Irritant

- · Routes of exposure: Inhalation
- 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 36/37 Irritating to eyes and respiratory system.

· 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.

4 First aid measures

- · 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. If symptoms persist, consult a doctor.

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Trade name: Quanta Count T4/TFI 100 Separation Tablets

(Contd. of page 1)

- · After swallowing Induce vomiting and call for medical help.
- · Information for doctor
- · The following symptoms may occur: Breathing difficulty

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: Not required
- · Measures for environmental protection: No special measures required.
- · Measures for cleaning/collecting: Ensure adequate ventilation.

7 Handling and storage

- · Handling
- · Information for safe handling:

No special measures required.

Prevent formation of dust.

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: Keep receptacle tightly sealed.

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:

9004-34-6 Cellulose

PEL (United States) | 15* 5** mg/m³ | *total dust **respirable fraction | 10* 5** mg/m³ | *total dust **respirable fraction | 10* 10** total dust **respirable fraction | 10 mg/m³ | 10 mg/m³ | 10 mg/m³

- · Additional information: The lists that were valid during the creation were used as basis.
- · Personal protective equipment
- · General protective and hygienic measures

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

(Contd. on page 3)



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Trade name: Quanta Count T4/TFI 100 Separation Tablets

(Contd. of page 2)

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- · 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

Tightly sealed goggles.

Physical and chemical p	roperties:
General Information	
Form: Color:	Solid. Amber colored
Odor:	Odorless
Change in condition Melting point/Melting range: Boiling point/Boiling range:	
· Flash point:	Not applicable
Ignition temperature:	340°C
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:	Insoluble
Solvent content: Organic solvents: Water:	0.0 % 18.7 %
Solids content:	100.0 %

10 Stability and reactivity

- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Materials to be avoided:
- · Dangerous reactions No dangerous reactions known
- · Dangerous products of decomposition: No dangerous decomposition products known

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Printing date 04/05/2010 Reviewed on 03/15/2010

Trade name: Quanta Count T4/TFI 100 Separation Tablets

(Contd. of page 3)

11 Toxicological information

- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: 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:

Irritant

· Target organs: Eye.

12 Ecological information:

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

13 Disposal considerations

- · Product:
- · Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Hand over to hazardous waste disposers.

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

14 Transport information

- · Maritime transport IMDG:
- · Marine pollutant: No

15 Regulations

- · 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):

All ingredients are listed.

(Contd. on page 5)



Printing date 04/05/2010 Reviewed on 03/15/2010

Trade name: Quanta Count T4/TFI 100 Separation Tablets

(Contd. of page 4)

· 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:

Xi Irritant

· Risk phrases:

36/37 Irritating to eyes and respiratory system.

· Safety phrases:

22 Do not breathe dust.

25 Avoid contact with eyes.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36 Wear suitable protective clothing.

- · 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 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.



Printing date 04/05/2010 Reviewed on 10/21/2009

1 Identification of substance:

- · Product details:
- · Trade name: Quanta Count T4/TFI Thyroxine Binding Reagent
- · Catalog or product number: 183-7104
- · 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: For the wording of the listed risk phrases refer to section 15.
- · Chemical characterization

· Listing o	f dangerous and non-hazardous components:		
144-02-5	barbital sodium	T; R 25	1.0-2.5%
	Human Source Material		1.0-2.5%
57-44-3	barbital	T; R 25	0.1-1.0%

3 Hazards identification

- · Emergency overview: not applicable
- · Information pertaining to particular dangers for man and environment not applicable
- · 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 = 0

Fire = 0

Reactivity = 0

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.

(Contd. on page 2)



Printing date 04/05/2010 Reviewed on 10/21/2009

Trade name: Quanta Count T4/TFI Thyroxine Binding Reagent

· After swallowing Induce vomiting and call for medical help.

(Contd. of page 1)

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: Not required
- · Measures for environmental protection:

Dilute with plenty of water.

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

· Measures for cleaning/collecting:

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

· Additional information: No dangerous substances are released.

7 Handling and storage

- · Handling
- · Information for safe handling:

No special measures required.

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

- · 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: Protective gloves.
- · Material of gloves Synthetic gloves

(Contd. on page 3)



Printing date 04/05/2010 Reviewed on 10/21/2009

Trade name: Quanta Count T4/TFI Thyroxine Binding Reagent

(Contd. of page 2)

· 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:

or mysical and offermout p	roperties.
· General Information	
Form:	liquid
Color:	Colorless
Odor:	Odorless
Change in condition Melting point/Melting range Boiling point/Boiling range:	
· 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:	8.6
· Organic solvents:	0.0 %
· Water:	96.6 %

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.

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:

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.

The substance is not subject to classification according to the latest version of the EU lists.

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Printing date 04/05/2010 Reviewed on 10/21/2009

Trade name: Quanta Count T4/TFI Thyroxine Binding Reagent

· Target organs: Not applicable.

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12 Ecological information:

- · 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

- · Product:
- · Recommendation

Hand over to hazardous waste disposers.

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

- · Maritime transport IMDG:
- · Marine pollutant: No
- · Transport/Additional information:

Contact Bio-Rad Laboratories for transportation information.

Not dangerous according to the above specifications.

15 Regulations

- · SARA (Superfund Amendents and Reauthorization Act of 1986 USA)
- · Section 302/304 (40CFR355.30 / 40CFR355.40):

Substance not listed.

Section 313 (40CFR372.65):

Substance is not listed.

· TSCA (Toxic Substances Control Act):

7732-18-5 water

26628-22-8 sodium azide

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

Substance is not listed.

· NTP (National Toxicology Program)

Substance is not listed.

(Contd. on page 5)



Printing date 04/05/2010 Reviewed on 10/21/2009

Trade name: Quanta Count T4/TFI Thyroxine Binding Reagent

(Contd. of page 4)

OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

· Markings according to EU guidelines:

Observe the general safety regulations when handling chemicals

The substance is not subject to classification according to EU lists and other sources of literature known to us. The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (GefStoffV).

- · National regulations
- · Technical instructions (air):

Class	Share in %
1	1.0-2.5

· 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 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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DUS