



04/05/2010

Kit Components

Product code	Description
194-5305	%CDT TIA Behring Nephelometer Version Obsolete Kit

Components:

194-5320	%CDT TIA Calibrator Set (Behring Version) Obsolete Product
194-5330	%CDT TIA Columns Obsolete Product
194-5332	%CDT TIA Solution 2 Obsolete Product
194-5335	%CDT TIA Solution 4 Obsolete Product
194-5333	%CDT TIA Solution 3 Obsolete Product
194-5331	%CDT TIA Solution 1 Obsolete Product

Material Safety Data Sheet

Printing date 04/05/2010

Reviewed on 10/21/2009

1 Identification of substance:

- **Product details:**
- **Trade name:** %CDT TIA Calibrator Set (Behring Version)
- **Catalog or product number:** 194-5320, 194-5321
- **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:** 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.
- **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.

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Trade name: %CDT TIA Calibrator Set (Behring Version)

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

- **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**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
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

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Reviewed on 10/21/2009

Trade name: %CDT TIA Calibrator Set (Behring Version)

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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

· Organic solvents: 0.0 %

· Water: 99.7 %

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.

· Target organs: Not applicable.

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Trade name: %CDT TIA Calibrator Set (Behring Version)

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12 Ecological information:

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

13 Disposal considerations

- **Product:**
- **Recommendation**
On the basis of the necessary technical regulations and after consultation with the disposal agent and the relevant authorities, can be disposed of with domestic waste or incinerated with domestic waste.
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:** Not dangerous according to the above specifications.

15 Regulations

- **SARA (Superfund Amendments 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
6976-37-0	Bis(2-hydroxyethyl)amino-tris(hydroxymethyl)methane
9005-64-5	Tween 20
7647-14-5	sodium chloride
26628-22-8	sodium azide
77-86-1	Tris(hydroxymethyl)aminomethane

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

Substance is not listed.

- **NTP (National Toxicology Program)**

Substance is not listed.

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Trade name: %CDT TIA Calibrator Set (Behring Version)

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· 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****· 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.**

Material Safety Data Sheet

Printing date 04/05/2010

Reviewed on 10/21/2009

1 Identification of substance:

- **Product details:**
- **Trade name:** %CDT TIA Columns
- **Catalog or product number:** 194-5330
- **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%
81133-22-4	Acrylic acid-co-divinylbenzene resin	10-20%

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

3 Hazards identification

- **Emergency overview:** not applicable
- **Information pertaining to particular dangers for man and environment**
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **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 = 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.
- **After swallowing** Induce vomiting and call for medical help.

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Trade name: %CDT TIA Columns

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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:** Not required
- **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).
- **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/m ³ , C 0.1* ppm *as HN3 vapor; **as NaN3; Skin
TLV (United States)	Short-term value: C 0.29** mg/m ³ , 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**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
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.

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Trade name: %CDT TIA Columns

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· **Eye protection:** Safety glasses

9 Physical and chemical properties:

· **General Information**

Form: liquid
Color: White
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:** 6

· **Solvent content:**

Organic solvents: 0.0 %
Water: 86.4 %

Solids content: 13.6 %

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.

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Material Safety Data Sheet

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Trade name: %CDT TIA Columns

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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.

· **Target organs:** Not applicable.

12 Ecological information:

· **Additional ecological information:**

· **General notes:** Generally not hazardous for water.

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.

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:** Not dangerous according to the above specifications.

15 Regulations

· **SARA (Superfund Amendants 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
6976-37-0	Bis(2-hydroxyethyl)amino-tris(hydroxymethyl)methane
9005-64-5	Tween 20
26628-22-8	sodium azide
77-86-1	Tris(hydroxymethyl)aminomethane

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Printing date 04/05/2010

Reviewed on 10/21/2009

Trade name: %CDT TIA Columns

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· **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:**

Observe the general safety regulations when handling chemicals

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (GefStoffV).

· **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.**

Material Safety Data Sheet

Printing date 04/05/2010

Reviewed on 10/21/2009

1 Identification of substance:

- **Product details:**
- **Trade name:** %CDT TIA Solution 2
- **Catalog or product number:** 194-5332
- **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:** 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.
- **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.

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Material Safety Data Sheet

Printing date 04/05/2010

Reviewed on 10/21/2009

Trade name: %CDT TIA Solution 2

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

- **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**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
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

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Trade name: %CDT TIA Solution 2

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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: 6

· Organic solvents: 0.0 %

· Water: 99.7 %

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.

· Target organs: Not applicable.

DUS

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Trade name: %CDT TIA Solution 2

(Contd. of page 3)

12 Ecological information:

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

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

- **Maritime transport IMDG:**
- **Marine pollutant:** No
- **Transport/Additional information:** Not dangerous according to the above specifications.

15 Regulations

- **SARA (Superfund Amendments 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):**

Substance is listed.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

Substance is not listed.

- **NTP (National Toxicology Program)**

Substance is not listed.

- **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).

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Reviewed on 10/21/2009

Trade name: %CDT TIA Solution 2

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- **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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Material Safety Data Sheet

Printing date 04/05/2010

Reviewed on 10/21/2009

1 Identification of substance:

- **Product details:**
- **Trade name:** %CDT TIA Solution 4
- **Catalog or product number:** 194-5335
- **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:**
- **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 of dangerous and non-hazardous components:**

25322-68-3	Polyethylene glycol (includes 3000, 4500)	2.5-5%
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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.

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

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Printing date 04/05/2010

Reviewed on 10/21/2009

Trade name: %CDT TIA Solution 4

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6 Accidental release measures

- **Person-related safety precautions:** Not required
- **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).
- **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:**

25322-68-3 Polyethylene glycol (includes 3000, 4500)

TLV (United States) (average molecular weight 200-600)

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

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
- **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

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Trade name: %CDT TIA Solution 4

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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/cm ³
· Solubility in / Miscibility with Water:	Fully miscible
· pH-value at 20°C:	6.0
· Organic solvents:	0.0 %
· Water:	97.0 %

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.
- **Target organs:** Not applicable.

12 Ecological information:

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

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Trade name: %CDT TIA Solution 4

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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:** Not dangerous according to the above specifications.

15 Regulations

- **SARA (Superfund Amendments 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):**

Substance is listed.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

Substance is not listed.

- **NTP (National Toxicology Program)**

Substance is not listed.

- **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**

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

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Trade name: %CDT TIA Solution 4

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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.**

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Material Safety Data Sheet

Printing date 04/05/2010

Reviewed on 10/21/2009

1 Identification of substance:

- **Product details:**
- **Trade name:** %CDT TIA Solution 3
- **Catalog or product number:** 194-5333
- **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:** 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.

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

6 Accidental release measures

- **Person-related safety precautions:** Not required

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Trade name: %CDT TIA Solution 3

(Contd. of page 1)

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

- **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
- **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

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Trade name: %CDT TIA Solution 3

(Contd. of page 2)

· 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/cm ³
· Solubility in / Miscibility with Water:	Fully miscible
· pH-value at 20°C:	6
· Organic solvents:	0.0 %
· Water:	99.7 %

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.
- **Target organs:** Not applicable.

12 Ecological information:

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

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.

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Trade name: %CDT TIA Solution 3

(Contd. of page 3)

- **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:** Not dangerous according to the above specifications.

15 Regulations

- **SARA (Superfund Amendments 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):**

Substance is listed.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

Substance is not listed.

- **NTP (National Toxicology Program)**

Substance is not listed.

- **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**

- **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:**

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Trade name: %CDT TIA Solution 3

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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:** %CDT TIA Solution 1
- **Catalog or product number:** 194-5331
- **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 of dangerous and non-hazardous components:**

7705-08-0	iron trichloride	Xn, Xi; R 22-38-41	.001-.01%
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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.
- **After swallowing** Induce vomiting and call for medical help.

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Trade name: %CDT TIA Solution 1

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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:** Not required
- **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).
- **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/m ³ , C 0.1* ppm *as HN3 vapor; **as NaN3; Skin
TLV (United States)	Short-term value: C 0.29** mg/m ³ , C 0.11* ppm *as HN3 vapor **as NaN3

7705-08-0 iron trichloride

REL (United States)	1 mg/m ³ as Fe
TLV (United States)	1 mg/m ³ as Fe

- **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.

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Trade name: %CDT TIA Solution 1

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Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

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

Organic solvents: 0.0 %

Water: 99.7 %

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.

(Contd. on page 4)

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Trade name: %CDT TIA Solution 1

(Contd. of page 3)

· 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.

· Target organs: Not applicable.

12 Ecological information:

· Additional ecological information:

· General notes: Generally not hazardous for water.

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

· Maritime transport IMDG:

· Marine pollutant: No

· Transport/Additional information: Not dangerous according to the above specifications.

15 Regulations

· SARA (Superfund Amendments 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):

Substance is listed.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

Substance is not listed.

· NTP (National Toxicology Program)

Substance is not listed.

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Trade name: %CDT TIA Solution 1

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· 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****· 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.**