

## SAFETY DATA SHEET



### AVENIO Post-Hybridization Kit

Version  
3.0

Revision Date:  
10/07/2024

Date of last issue: 10/07/2024  
Date of first issue: 12/27/2016

#### Cover letter for product:

Trade name : AVENIO Post-Hybridization Kit  
Product code : 08061033001

The product is sold as a kit, and contains the following components:

- Hybridization Wash Buffer I (10x)
- Hybridization Wash Buffer II (10x)
- Hybridization Wash Buffer III (10x)
- Stringent Wash Buffer (10x)
- PCR Reaction Mix (2x)
- PCR Primer Mix (10x)
- Bead Wash Buffer (2.5x)

The following is an overview of the labeling elements of the kit:

#### GHS label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H370 Causes damage to organs (Central nervous system) if swallowed.

Precautionary Statements : **Prevention:**  
P260 Do not breathe mist or vapors.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.

**Response:**  
P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor.

**Storage:**  
P405 Store locked up.

**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

#### Other hazards

None known.

The product was evaluated per International Air Transport Association (IATA) specifications with the following outcome:

Not assigned by regulation

**AVENIO Post-Hybridization Kit**Version  
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Product name : Hybridization Wash Buffer I (10x)

Other means of identification : No data available

**Manufacturer or supplier's details**

Company name of supplier : Roche Diagnostic Canada

Address : 201 Boulevard Armand-Frappier  
Laval, QC, H7V 4A2, Canada

Telephone : 1-877-273-3433

Telefax : 1-877-686-1598

E-mail address : laval.techinfo@roche.com

Emergency telephone

In case of emergencies: : CHEMTREC 1-800-424-9300

Centre for detoxification: : Canadian Association of  
Poison Control Centres <http://www.capcc.ca>**Recommended use of the chemical and restrictions on use**Recommended use : Laboratory chemicals  
Refer to product literature for further details.**SECTION 2. HAZARDS IDENTIFICATION****GHS classification in accordance with the Hazardous Products Regulations**

Not a hazardous substance or mixture.

**GHS label elements**

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Components**

| Chemical name                               | Common Name/Synonym   | CAS-No.  | Concentration (% w/w) |
|---|-----------------------|----------|-----------------------|
| Sulfuric acid monododecyl ester sodium salt | Sodium dodecylsulfate | 151-21-3 | $\geq 1 - < 5$ *      |

\* Actual concentration or concentration range is withheld as a trade secret

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**SECTION 4. FIRST AID MEASURES**

|   |  |
|---|--|
| General advice  | : Do not leave the victim unattended.  |
| If inhaled  | : Move to fresh air.<br>If unconscious, place in recovery position and seek medical advice.<br>If symptoms persist, call a physician.  |
| In case of skin contact                                     | : If skin irritation persists, call a physician.<br>If on skin, rinse well with water.<br>If on clothes, remove clothes.   |
| In case of eye contact                                      | : Immediately flush eye(s) with plenty of water.<br>Remove contact lenses.<br>Protect unharmed eye.<br>Keep eye wide open while rinsing.<br>If eye irritation persists, consult a specialist.  |
| If swallowed  | : Clean mouth with water and drink afterwards plenty of water.<br>Keep respiratory tract clear.<br>Do not give milk or alcoholic beverages.<br>Never give anything by mouth to an unconscious person.<br>If symptoms persist, call a physician.<br>Rinse mouth with water. |
| Most important symptoms and effects, both acute and delayed | : Causes mild skin irritation.   |
| Notes to physician  | : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.   |

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**SECTION 5. FIRE-FIGHTING MEASURES**

|                                       |   |
|---------------------------------------|---|
| Suitable extinguishing media          | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable extinguishing media        | : High volume water jet   |
| Specific hazards during fire fighting | : No information available.   |
| Hazardous combustion products         | : Carbon oxides<br>Sulfur oxides<br>Sodium oxides<br>Gaseous hydrogen chloride (HCl).                     |
| Further information                   | : Standard procedure for chemical fires.<br>Use extinguishing measures that are appropriate to local      |

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circumstances and the surrounding environment.

Special protective equipment : Wear self-contained breathing apparatus for firefighting if  
for fire-fighters necessary.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, : Use personal protective equipment.  
protective equipment and : Refer to protective measures listed in sections 7 and 8.  
emergency procedures

Environmental precautions : Prevent further leakage or spillage if safe to do so.  
: Local authorities should be advised if significant spillages  
cannot be contained.

Methods and materials for : Wipe up with absorbent material (e.g. cloth, fleece).  
containment and cleaning up : Keep in suitable, closed containers for disposal.

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**SECTION 7. HANDLING AND STORAGE**

Advice on protection against : Normal measures for preventive fire protection.  
fire and explosion

Advice on safe handling : Avoid contact with skin and eyes.  
: For personal protection see section 8.  
: Smoking, eating and drinking should be prohibited in the  
application area.  
: Dispose of rinse water in accordance with local and national  
regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated  
place.  
: Electrical installations / working materials must comply with  
the technological safety standards.

Further information on : See label, package insert or internal guidelines  
storage conditions

Further information on : No decomposition if stored and applied as directed.  
storage stability

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**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Engineering measures** : No data available**Personal protective equipment**

Hand protection

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|                          |   |
|--------------------------|---|
| Material                 | : Protective gloves   |
| Remarks                  | : The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. This recommendation is only valid for the product mentioned in the material safety data sheet and provided by us and for the application specified by us. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves. |
| Eye protection           | : Eye wash bottle with pure water<br>Tightly fitting safety goggles   |
| Skin and body protection | : Impervious clothing<br>Choose body protection according to the amount and concentration of the dangerous substance at the work place.   |
| Hygiene measures         | : When using do not eat or drink.<br>When using do not smoke.<br>Wash hands before breaks and at the end of workday.  |

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

|                             |                     |
|-----------------------------|---------------------|
| Appearance                  | : liquid            |
| Color                       | : colorless         |
| Odor                        | : none              |
| Odor Threshold              | : No data available |
| pH                          | : 6.9               |
| Melting point/ range        | : No data available |
| Boiling point/boiling range | : No data available |
| Flash point                 | : does not flash    |
| Evaporation rate            | : No data available |

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|  |   |   |
|--|---|---|
| Flammability (liquids)                           | : | Does not sustain combustion.<br>The product is not flammable. |
| Self-ignition                                    | : | Not applicable  |
| Upper explosion limit / Upper flammability limit | : | No data available   |
| Lower explosion limit / Lower flammability limit | : | No data available   |
| Vapor pressure                                   | : | No data available   |
| Relative vapor density                           | : | No data available   |
| Relative density                                 | : | No data available   |
| Solubility(ies)                                  |   |   |
| Water solubility                                 | : | completely miscible   |
| Solubility in other solvents                     | : | No data available   |
| Partition coefficient: n-octanol/water           | : | No data available   |
| Autoignition temperature                         | : | No data available   |
| Decomposition temperature                        | : | No data available   |
| Viscosity  |   |   |
| Viscosity, dynamic                               | : | No data available   |
| Viscosity, kinematic                             | : | No data available   |
| Oxidizing properties                             | : | The substance or mixture is not classified as oxidizing.      |

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**SECTION 10. STABILITY AND REACTIVITY**

|                                    |   |  |
|------------------------------------|---|--|
| Reactivity                         | : | No dangerous reaction known under conditions of normal use.  |
| Chemical stability                 | : | Stable under normal conditions.  |
| Possibility of hazardous reactions | : | No dangerous reaction known under conditions of normal use.<br>No decomposition if stored and applied as directed. |
| Conditions to avoid                | : | No data available  |
| Incompatible materials             | : | No data available  |
| Hazardous decomposition products   | : | No decomposition if stored and applied as directed.  |

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**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity**Not classified due to lack of data.  
Not classified due to lack of data.**Product:**Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Method: Calculation methodAcute toxicity estimate: > 2,000 mg/kg  
Method: Calculation methodAcute inhalation toxicity : Acute toxicity estimate: > 40 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor  
Method: Calculation methodAcute toxicity estimate: > 20 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor  
Method: Calculation methodAcute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Method: Calculation methodAcute toxicity estimate: > 2,000 mg/kg  
Method: Calculation method**Components:****Sulfuric acid monododecyl ester sodium salt:**Acute oral toxicity : LD50 Oral (Rat, male and female): 1,200 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : Assessment: The component/mixture is moderately toxic after short term inhalation.

Acute dermal toxicity : LD50 Dermal (Rat, male and female): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
GLP: yes  
Remarks: No mortality observed at this dose.**Skin corrosion/irritation**Causes mild skin irritation.  
Not classified due to lack of data.**Product:**

Remarks : May cause skin irritation and/or dermatitis.

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**Components:****Sulfuric acid monododecyl ester sodium salt:**

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : Irritating to skin.  
GLP : no

**Serious eye damage/eye irritation**

Not classified due to lack of data.

Not classified due to lack of data.

**Product:**

Remarks : Vapors may cause irritation to the eyes, respiratory system and the skin.

**Components:****Sulfuric acid monododecyl ester sodium salt:**

Species : Rabbit  
Result : Risk of serious damage to eyes.  
Method : OECD Test Guideline 405  
GLP : no

**Respiratory or skin sensitization****Skin sensitization**

Not classified due to lack of data.

**Skin sensitization**

Not classified due to lack of data.

**Respiratory sensitization**

Not classified due to lack of data.

**Respiratory sensitization**

Not classified due to lack of data.

**Components:****Sulfuric acid monododecyl ester sodium salt:**

Result : Did not cause sensitization on laboratory animals.

**Germ cell mutagenicity**

Not classified due to lack of data.

Not classified due to lack of data.

**Components:****Sulfuric acid monododecyl ester sodium salt:**

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)  
Method: OECD Test Guideline 471  
Result: negative



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Genotoxicity in vivo : Test Type: Micronucleus test  
Method: OECD Test Guideline 474  
Result: negative

**Carcinogenicity**

Not classified due to lack of data.  
Not classified due to lack of data.

**Reproductive toxicity**

Not classified due to lack of data.  
Not classified due to lack of data.

**STOT-single exposure**

Not classified due to lack of data.  
Not classified due to lack of data.

**Components:****Sulfuric acid monododecyl ester sodium salt:**

Routes of exposure : Inhalation  
Target Organs : Respiratory Tract  
Assessment : May cause respiratory irritation.

**STOT-repeated exposure**

Not classified due to lack of data.  
Not classified due to lack of data.

**Aspiration toxicity**

Not classified due to lack of data.  
Not classified due to lack of data.

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Components:****Sulfuric acid monododecyl ester sodium salt:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 3.6 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Ceriodaphnia dubia (water flea)): 5.55 mg/l  
aquatic invertebrates Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to fish (Chronic : NOEC (Pimephales promelas (fathead minnow)): > 1.36 mg/l  
toxicity) Exposure time: 42 d

Toxicity to daphnia and other : NOEC (Ceriodaphnia dubia (water flea)): 0.88 mg/l  
aquatic invertebrates Exposure time: 7 d  
(Chronic toxicity)

Toxicity to microorganisms : EC0 (Pseudomonas putida): > 100 mg/l  
Method: OECD Test Guideline 209

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**Persistence and degradability****Components:****Sulfuric acid monododecyl ester sodium salt:**

Biodegradability : aerobic  
Inoculum: activated sludge, non-adapted  
Result: Readily biodegradable.  
Biodegradation: 95 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B  
GLP: yes

**Bioaccumulative potential****Components:****Sulfuric acid monododecyl ester sodium salt:**

Bioaccumulation : Species: Cyprinus carpio (Carp)  
Bioconcentration factor (BCF): 3.9 - 5.3  
Exposure time: 3 d

Partition coefficient: n-octanol/water : log Pow: -2.03 (20 °C)  
Method: OECD Test Guideline 107

**Mobility in soil**

No data available

**Other adverse effects**

No data available

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**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.  
Can be disposed as waste water, when in compliance with local regulations.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not re-use empty containers.

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**SECTION 14. TRANSPORT INFORMATION****International Regulations****UNRTDG**

Not regulated as a dangerous good

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**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**Domestic regulation****TDG**

Not regulated as a dangerous good

**Special precautions for user**

Remarks : Not dangerous goods in the meaning of ADR/RID, ADN, IMDG-Code, ICAO/IATA-DGR

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**SECTION 15. REGULATORY INFORMATION**

**WHMIS Classification** : D2B: Toxic Material Causing Other Toxic Effects

**The ingredients of this product are reported in the following inventories:**

AIIC : On the inventory, or in compliance with the inventory

DSL : All components of this product are on the Canadian DSL

NZIoC : On the inventory, or in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

ISHL : On the inventory, or in compliance with the inventory

KECI : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

TCSI : On the inventory, or in compliance with the inventory

TSCA : All substances listed as active on the TSCA inventory

TECI : On the inventory, or in compliance with the inventory

**Canadian lists**

No substances are subject to a Significant New Activity Notification.

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AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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Date format : mm/dd/yyyy

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

CA / Z8 / 2304

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Product name : Hybridization Wash Buffer II (10x)

Other means of identification : No data available

**Manufacturer or supplier's details**

Company name of supplier : Roche Diagnostic Canada

Address : 201 Boulevard Armand-Frappier  
Laval, QC, H7V 4A2, Canada

Telephone : 1-877-273-3433

Telefax : 1-877-686-1598

E-mail address : laval.techinfo@roche.com

Emergency telephone

In case of emergencies: : CHEMTREC 1-800-424-9300

Centre for detoxification: : Canadian Association of  
Poison Control Centres <http://www.capcc.ca>**Recommended use of the chemical and restrictions on use**Recommended use : Laboratory chemicals  
Refer to product literature for further details.

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**SECTION 2. HAZARDS IDENTIFICATION****GHS classification in accordance with the Hazardous Products Regulations**

Not a hazardous substance or mixture.

**GHS label elements**

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

**Other hazards**

None known.

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Components**

No hazardous ingredients

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**SECTION 4. FIRST AID MEASURES**

General advice : Do not leave the victim unattended.

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|   |  |
|---|--|
| If inhaled  | : Move to fresh air.<br>If unconscious, place in recovery position and seek medical advice.<br>If symptoms persist, call a physician.  |
| In case of skin contact                                     | : If on skin, rinse well with water.   |
| In case of eye contact                                      | : Immediately flush eye(s) with plenty of water.<br>Remove contact lenses.<br>Protect unharmed eye.<br>If eye irritation persists, consult a specialist.   |
| If swallowed  | : Keep respiratory tract clear.<br>Do not give milk or alcoholic beverages.<br>Never give anything by mouth to an unconscious person.<br>If symptoms persist, call a physician.<br>Rinse mouth with water. |
| Most important symptoms and effects, both acute and delayed | : None known.  |
| Notes to physician  | : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.   |

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**SECTION 5. FIRE-FIGHTING MEASURES**

|  |   |
|--|---|
| Suitable extinguishing media                   | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.   |
| Specific hazards during fire fighting          | : No information available.   |
| Hazardous combustion products                  | : Gaseous hydrogen chloride (HCl).<br>Sodium oxides   |
| Further information                            | : Standard procedure for chemical fires.<br>Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Special protective equipment for fire-fighters | : Wear self-contained breathing apparatus for firefighting if necessary.  |

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

|   |   |
|---|---|
| Personal precautions, protective equipment and emergency procedures | : Refer to protective measures listed in sections 7 and 8.                          |
| Environmental precautions   | : Local authorities should be advised if significant spillages cannot be contained. |

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Methods and materials for containment and cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).  
Keep in suitable, closed containers for disposal.

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**SECTION 7. HANDLING AND STORAGE**

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.

Conditions for safe storage : Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : See label, package insert or internal guidelines

Materials to avoid : No materials to be especially mentioned.

Further information on storage stability : No decomposition if stored and applied as directed.

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**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Engineering measures** : No data available

**Personal protective equipment**

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection

Material : Protective gloves

Remarks : The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. This recommendation is only valid for the product mentioned in the material safety data sheet and provided by us and for the application specified by us. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the

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producers of the protective gloves.

Eye protection : Safety glasses

Skin and body protection : Protective suit

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid

Color : colorless

Odor : none

Odor Threshold : No data available

pH : 5.8 (25 °C)

Melting point/ range : No data available

Boiling point/boiling range : No data available

Flash point : does not flash

Evaporation rate : No data available

Flammability (liquids) : Does not sustain combustion.

The product is not flammable.

Self-ignition : Not applicable

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure : No data available

Relative vapor density : No data available

Relative density : No data available

Solubility(ies)



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|  |   |  |
|--|---|--|
| Water solubility                       | : | completely miscible                                      |
| Solubility in other solvents           | : | No data available  |
| Partition coefficient: n-octanol/water | : | No data available  |
| Autoignition temperature               | : | No data available  |
| Decomposition temperature              | : | No data available  |
| Viscosity                              |   |  |
| Viscosity, dynamic                     | : | No data available  |
| Viscosity, kinematic                   | : | No data available  |
| Explosive properties                   | : | Not explosive  |
| Oxidizing properties                   | : | The substance or mixture is not classified as oxidizing. |

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**SECTION 10. STABILITY AND REACTIVITY**

|                                    |   |  |
|------------------------------------|---|--|
| Reactivity                         | : | No dangerous reaction known under conditions of normal use.  |
| Chemical stability                 | : | Stable under normal conditions.  |
| Possibility of hazardous reactions | : | No dangerous reaction known under conditions of normal use.<br>Stable under recommended storage conditions.<br>No hazards to be specially mentioned. |
| Conditions to avoid                | : | No data available  |
| Incompatible materials             | : | No data available  |
| Hazardous decomposition products   | : | No decomposition if stored and applied as directed.  |

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**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity**Not classified due to lack of data.  
Not classified due to lack of data.**Product:**

|                     |   |  |
|---------------------|---|--|
| Acute oral toxicity | : | Acute toxicity estimate: > 5,000 mg/kg<br>Method: Calculation method |
|                     |   | Acute toxicity estimate: > 2,000 mg/kg<br>Method: Calculation method |

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**Skin corrosion/irritation**

Not classified due to lack of data.  
Not classified due to lack of data.

**Serious eye damage/eye irritation**

Not classified due to lack of data.  
Not classified due to lack of data.

**Respiratory or skin sensitization****Skin sensitization**

Not classified due to lack of data.

**Skin sensitization**

Not classified due to lack of data.

**Respiratory sensitization**

Not classified due to lack of data.

**Respiratory sensitization**

Not classified due to lack of data.

**Germ cell mutagenicity**

Not classified due to lack of data.  
Not classified due to lack of data.

**Carcinogenicity**

Not classified due to lack of data.  
Not classified due to lack of data.

**Reproductive toxicity**

Not classified due to lack of data.  
Not classified due to lack of data.

**STOT-single exposure**

Not classified due to lack of data.  
Not classified due to lack of data.

**STOT-repeated exposure**

Not classified due to lack of data.  
Not classified due to lack of data.

**Aspiration toxicity**

Not classified due to lack of data.  
Not classified due to lack of data.

---

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

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**Mobility in soil**

No data available

**Other adverse effects**

No data available

---

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Can be disposed as waste water, when in compliance with local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not re-use empty containers.

---

**SECTION 14. TRANSPORT INFORMATION****International Regulations****UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**Domestic regulation****TDG**

Not regulated as a dangerous good

**Special precautions for user**

Remarks : Not dangerous goods in the meaning of ADR/RID, ADN, IMDG-Code, ICAO/IATA-DGR

---

**SECTION 15. REGULATORY INFORMATION**

**WHMIS Classification** : Not controlled.

**The ingredients of this product are reported in the following inventories:**

AIIC : On the inventory, or in compliance with the inventory

DSL : All components of this product are on the Canadian DSL

NZIoC : On the inventory, or in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

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|       |   |
|-------|---|
| ISHL  | : On the inventory, or in compliance with the inventory |
| KECI  | : On the inventory, or in compliance with the inventory |
| PICCS | : On the inventory, or in compliance with the inventory |
| IECSC | : On the inventory, or in compliance with the inventory |
| TCSI  | : On the inventory, or in compliance with the inventory |
| TSCA  | : All substances listed as active on the TSCA inventory |
| TECI  | : On the inventory, or in compliance with the inventory |

**Canadian lists**

No substances are subject to a Significant New Activity Notification.

---

**SECTION 16. OTHER INFORMATION**
**Full text of other abbreviations**

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods;

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vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Revision Date : 10/07/2024  
Date format : mm/dd/yyyy

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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**AVENIO Post-Hybridization Kit**Version  
3.0Revision Date:  
10/07/2024Date of last issue: 10/07/2024  
Date of first issue: 12/27/2016**SECTION 1. IDENTIFICATION**

Product name : Hybridization Wash Buffer III (10x)

Other means of identification : No data available

**Manufacturer or supplier's details**

Company name of supplier : Roche Diagnostic Canada

Address : 201 Boulevard Armand-Frappier  
Laval, QC, H7V 4A2, Canada

Telephone : 1-877-273-3433

Telefax : 1-877-686-1598

E-mail address : laval.techinfo@roche.com

Emergency telephone

In case of emergencies: : CHEMTREC 1-800-424-9300

Centre for detoxification: : Canadian Association of  
Poison Control Centres <http://www.capcc.ca>**Recommended use of the chemical and restrictions on use**Recommended use : Laboratory chemicals  
Refer to product literature for further details.

---

**SECTION 2. HAZARDS IDENTIFICATION****GHS classification in accordance with the Hazardous Products Regulations**

Not a hazardous substance or mixture.

**GHS label elements**

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

**Other hazards**

None known.

---

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Components**

No hazardous ingredients

---

**SECTION 4. FIRST AID MEASURES**

General advice : Do not leave the victim unattended.

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|   |  |
|---|--|
| If inhaled  | : Move to fresh air.<br>If unconscious, place in recovery position and seek medical advice.<br>If symptoms persist, call a physician.  |
| In case of skin contact                                     | : If on skin, rinse well with water.   |
| In case of eye contact                                      | : Immediately flush eye(s) with plenty of water.<br>Remove contact lenses.<br>Protect unharmed eye.<br>If eye irritation persists, consult a specialist.   |
| If swallowed  | : Keep respiratory tract clear.<br>Do not give milk or alcoholic beverages.<br>Never give anything by mouth to an unconscious person.<br>If symptoms persist, call a physician.<br>Rinse mouth with water. |
| Most important symptoms and effects, both acute and delayed | : None known.  |
| Notes to physician  | : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.   |

---

**SECTION 5. FIRE-FIGHTING MEASURES**

|  |   |
|--|---|
| Suitable extinguishing media                   | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.   |
| Specific hazards during fire fighting          | : No information available.   |
| Hazardous combustion products                  | : No hazardous combustion products are known  |
| Further information                            | : Standard procedure for chemical fires.<br>Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Special protective equipment for fire-fighters | : Wear self-contained breathing apparatus for firefighting if necessary.  |

---

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

|   |   |
|---|---|
| Personal precautions, protective equipment and emergency procedures | : Refer to protective measures listed in sections 7 and 8.                          |
| Environmental precautions   | : Local authorities should be advised if significant spillages cannot be contained. |

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Methods and materials for containment and cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).  
Keep in suitable, closed containers for disposal.

---

**SECTION 7. HANDLING AND STORAGE**

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.

Conditions for safe storage : Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : See label, package insert or internal guidelines

Materials to avoid : No materials to be especially mentioned.

Further information on storage stability : No decomposition if stored and applied as directed.

---

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Engineering measures** : No data available

**Personal protective equipment**

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection

Material : Protective gloves

Remarks : The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. This recommendation is only valid for the product mentioned in the material safety data sheet and provided by us and for the application specified by us. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the



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producers of the protective gloves.

Eye protection : Safety glasses

Skin and body protection : Protective suit

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid

Color : colorless

Odor : none

Odor Threshold : No data available

pH : 5.5

Melting point/ range : No data available

Boiling point/boiling range : No data available

Flash point : does not flash

Evaporation rate : No data available

Flammability (liquids) : Does not sustain combustion.

The product is not flammable.

Self-ignition : Not applicable

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure : No data available

Relative vapor density : No data available

Relative density : No data available

Solubility(ies)

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|  |   |  |
|--|---|--|
| Water solubility                       | : | completely miscible                                      |
| Solubility in other solvents           | : | No data available  |
| Partition coefficient: n-octanol/water | : | No data available  |
| Autoignition temperature               | : | No data available  |
| Decomposition temperature              | : | No data available  |
| Viscosity                              |   |  |
| Viscosity, dynamic                     | : | No data available  |
| Viscosity, kinematic                   | : | No data available  |
| Explosive properties                   | : | Not explosive  |
| Oxidizing properties                   | : | The substance or mixture is not classified as oxidizing. |

---

**SECTION 10. STABILITY AND REACTIVITY**

|                                    |   |  |
|------------------------------------|---|--|
| Reactivity                         | : | No dangerous reaction known under conditions of normal use.  |
| Chemical stability                 | : | Stable under normal conditions.  |
| Possibility of hazardous reactions | : | No dangerous reaction known under conditions of normal use.<br>Stable under recommended storage conditions.<br>No hazards to be specially mentioned. |
| Conditions to avoid                | : | No data available  |
| Incompatible materials             | : | No data available  |
| Hazardous decomposition products   | : | No decomposition if stored and applied as directed.  |

---

**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity**Not classified due to lack of data.  
Not classified due to lack of data.**Skin corrosion/irritation**Not classified due to lack of data.  
Not classified due to lack of data.**Serious eye damage/eye irritation**Not classified due to lack of data.  
Not classified due to lack of data.

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**Respiratory or skin sensitization****Skin sensitization**

Not classified due to lack of data.

**Skin sensitization**

Not classified due to lack of data.

**Respiratory sensitization**

Not classified due to lack of data.

**Respiratory sensitization**

Not classified due to lack of data.

**Germ cell mutagenicity**

Not classified due to lack of data.

Not classified due to lack of data.

**Carcinogenicity**

Not classified due to lack of data.

Not classified due to lack of data.

**Reproductive toxicity**

Not classified due to lack of data.

Not classified due to lack of data.

**STOT-single exposure**

Not classified due to lack of data.

Not classified due to lack of data.

**STOT-repeated exposure**

Not classified due to lack of data.

Not classified due to lack of data.

**Aspiration toxicity**

Not classified due to lack of data.

Not classified due to lack of data.

---

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available

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**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

- Waste from residues : Can be disposed as waste water, when in compliance with local regulations.
- Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not re-use empty containers.

---

**SECTION 14. TRANSPORT INFORMATION****International Regulations****UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**Domestic regulation****TDG**

Not regulated as a dangerous good

**Special precautions for user**

- Remarks : Not dangerous goods in the meaning of ADR/RID, ADN, IMDG-Code, ICAO/IATA-DGR

---

**SECTION 15. REGULATORY INFORMATION****WHMIS Classification** : Not controlled.**The ingredients of this product are reported in the following inventories:**

- AIIC : On the inventory, or in compliance with the inventory
- DSL : All components of this product are on the Canadian DSL
- NZIoC : On the inventory, or in compliance with the inventory
- ENCS : On the inventory, or in compliance with the inventory
- ISHL : On the inventory, or in compliance with the inventory
- KECI : On the inventory, or in compliance with the inventory
- PICCS : On the inventory, or in compliance with the inventory

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|       |   |
|-------|---|
| IECSC | : On the inventory, or in compliance with the inventory |
| TCSI  | : On the inventory, or in compliance with the inventory |
| TSCA  | : All substances listed as active on the TSCA inventory |
| TECI  | : On the inventory, or in compliance with the inventory |

### Canadian lists

No substances are subject to a Significant New Activity Notification.

---

## SECTION 16. OTHER INFORMATION

### Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

CA / Z8 / 2304

**AVENIO Post-Hybridization Kit**Version  
3.0Revision Date:  
10/07/2024Date of last issue: 10/07/2024  
Date of first issue: 12/27/2016**SECTION 1. IDENTIFICATION**

Product name : Stringent Wash Buffer (10x)

Other means of identification : No data available

**Manufacturer or supplier's details**

Company name of supplier : Roche Diagnostic Canada

Address : 201 Boulevard Armand-Frappier  
Laval, QC, H7V 4A2, Canada

Telephone : 1-877-273-3433

Telefax : 1-877-686-1598

E-mail address : laval.techinfo@roche.com

Emergency telephone

In case of emergencies: : CHEMTREC 1-800-424-9300

Centre for detoxification: : Canadian Association of  
Poison Control Centres <http://www.capcc.ca>**Recommended use of the chemical and restrictions on use**Recommended use : Laboratory chemicals  
Refer to product literature for further details.

---

**SECTION 2. HAZARDS IDENTIFICATION****GHS classification in accordance with the Hazardous Products Regulations**

Not a hazardous substance or mixture.

**GHS label elements**

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

**Other hazards**

None known.

---

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Components**

No hazardous ingredients

---

**SECTION 4. FIRST AID MEASURES**

General advice : Do not leave the victim unattended.

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|   |  |
|---|--|
| If inhaled  | : Move to fresh air.<br>If unconscious, place in recovery position and seek medical advice.<br>If symptoms persist, call a physician.  |
| In case of skin contact                                     | : If on skin, rinse well with water.   |
| In case of eye contact                                      | : Immediately flush eye(s) with plenty of water.<br>Remove contact lenses.<br>Protect unharmed eye.<br>If eye irritation persists, consult a specialist.   |
| If swallowed  | : Keep respiratory tract clear.<br>Do not give milk or alcoholic beverages.<br>Never give anything by mouth to an unconscious person.<br>If symptoms persist, call a physician.<br>Rinse mouth with water. |
| Most important symptoms and effects, both acute and delayed | : None known.  |
| Notes to physician  | : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.   |

---

**SECTION 5. FIRE-FIGHTING MEASURES**

|  |   |
|--|---|
| Suitable extinguishing media                   | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.   |
| Specific hazards during fire fighting          | : No information available.   |
| Hazardous combustion products                  | : No hazardous combustion products are known  |
| Further information                            | : Standard procedure for chemical fires.<br>Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Special protective equipment for fire-fighters | : Wear self-contained breathing apparatus for firefighting if necessary.  |

---

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

|   |   |
|---|---|
| Personal precautions, protective equipment and emergency procedures | : Refer to protective measures listed in sections 7 and 8.                          |
| Environmental precautions   | : Local authorities should be advised if significant spillages cannot be contained. |



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Methods and materials for containment and cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).  
Keep in suitable, closed containers for disposal.

---

**SECTION 7. HANDLING AND STORAGE**

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.

Conditions for safe storage : Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : See label, package insert or internal guidelines

Materials to avoid : No materials to be especially mentioned.

Further information on storage stability : No decomposition if stored and applied as directed.

---

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Engineering measures** : No data available

**Personal protective equipment**

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection

Material : Protective gloves

Remarks : The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. This recommendation is only valid for the product mentioned in the material safety data sheet and provided by us and for the application specified by us. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the

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producers of the protective gloves.

Eye protection : Safety glasses

Skin and body protection : Protective suit

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

---

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid

Color : colorless

Odor : none

Odor Threshold : No data available

pH : 6.5

Melting point/ range : No data available

Boiling point/boiling range : No data available

Flash point : does not flash

Evaporation rate : No data available

Flammability (liquids) : Does not sustain combustion.

The product is not flammable.

Self-ignition : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure : No data available

Relative vapor density : No data available

Relative density : No data available

Solubility(ies)

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|  |   |  |
|--|---|--|
| Water solubility                       | : | completely miscible                                      |
| Solubility in other solvents           | : | No data available  |
| Partition coefficient: n-octanol/water | : | No data available  |
| Autoignition temperature               | : | No data available  |
| Decomposition temperature              | : | No data available  |
| Viscosity                              |   |  |
| Viscosity, dynamic                     | : | No data available  |
| Viscosity, kinematic                   | : | No data available  |
| Explosive properties                   | : | Not explosive  |
| Oxidizing properties                   | : | The substance or mixture is not classified as oxidizing. |

---

**SECTION 10. STABILITY AND REACTIVITY**

|                                    |   |   |
|------------------------------------|---|---|
| Reactivity                         | : | No dangerous reaction known under conditions of normal use.                           |
| Chemical stability                 | : | Stable under normal conditions.   |
| Possibility of hazardous reactions | : | Stable under recommended storage conditions.<br>No hazards to be specially mentioned. |
| Conditions to avoid                | : | No data available   |
| Incompatible materials             | : | No data available   |
| Hazardous decomposition products   | : | No data available   |

---

**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity**Not classified due to lack of data.  
Not classified due to lack of data.**Skin corrosion/irritation**Not classified due to lack of data.  
Not classified due to lack of data.**Serious eye damage/eye irritation**Not classified due to lack of data.  
Not classified due to lack of data.

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**Respiratory or skin sensitization****Skin sensitization**

Not classified due to lack of data.

**Skin sensitization**

Not classified due to lack of data.

**Respiratory sensitization**

Not classified due to lack of data.

**Respiratory sensitization**

Not classified due to lack of data.

**Germ cell mutagenicity**

Not classified due to lack of data.

Not classified due to lack of data.

**Carcinogenicity**

Not classified due to lack of data.

Not classified due to lack of data.

**Reproductive toxicity**

Not classified due to lack of data.

Not classified due to lack of data.

**STOT-single exposure**

Not classified due to lack of data.

Not classified due to lack of data.

**STOT-repeated exposure**

Not classified due to lack of data.

Not classified due to lack of data.

**Aspiration toxicity**

Not classified due to lack of data.

Not classified due to lack of data.

---

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Product:****Ecotoxicology Assessment**

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

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**Mobility in soil**

No data available

**Other adverse effects**

No data available

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**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Can be disposed as waste water, when in compliance with local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not re-use empty containers.

---

**SECTION 14. TRANSPORT INFORMATION****International Regulations****UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**Domestic regulation****TDG**

Not regulated as a dangerous good

**Special precautions for user**

Remarks : Not dangerous goods in the meaning of ADR/RID, ADN, IMDG-Code, ICAO/IATA-DGR

---

**SECTION 15. REGULATORY INFORMATION**

**WHMIS Classification** : Not controlled.

**The ingredients of this product are reported in the following inventories:**

AIIC : On the inventory, or in compliance with the inventory

DSL : All components of this product are on the Canadian DSL

NZIoC : On the inventory, or in compliance with the inventory

ENCS : Not in compliance with the inventory

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|       |   |
|-------|---|
| ISHL  | : Not in compliance with the inventory                  |
| KECI  | : On the inventory, or in compliance with the inventory |
| PICCS | : Not in compliance with the inventory                  |
| IECSC | : On the inventory, or in compliance with the inventory |
| TCSI  | : On the inventory, or in compliance with the inventory |
| TSCA  | : All substances listed as active on the TSCA inventory |
| TECI  | : Not in compliance with the inventory                  |

### Canadian lists

No substances are subject to a Significant New Activity Notification.

---

## SECTION 16. OTHER INFORMATION

### Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods;

# SAFETY DATA SHEET



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vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Revision Date : 10/07/2024  
Date format : mm/dd/yyyy

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

CA / Z8 / 2304

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Product name : PCR Reaction Mix (2x)

Other means of identification : No data available

**Manufacturer or supplier's details**

Company name of supplier : Roche Diagnostic Canada

Address : 201 Boulevard Armand-Frappier  
Laval, QC, H7V 4A2, Canada

Telephone : 1-877-273-3433

Telefax : 1-877-686-1598

E-mail address : laval.techinfo@roche.com

Emergency telephone

In case of emergencies: : CHEMTREC 1-800-424-9300

Centre for detoxification: : Canadian Association of  
Poison Control Centres <http://www.capcc.ca>**Recommended use of the chemical and restrictions on use**Recommended use : Laboratory chemicals  
Refer to product literature for further details.

---

**SECTION 2. HAZARDS IDENTIFICATION****GHS classification in accordance with the Hazardous Products Regulations**Specific target organ toxicity : Category 1 (Central nervous system)  
- single exposure (Oral)**GHS label elements**

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H370 Causes damage to organs (Central nervous system) if  
swallowed.Precautionary Statements : **Prevention:**  
P260 Do not breathe mist or vapors.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.



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**Response:**

P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor.

**Storage:**

P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Components**

| Chemical name                             | Common Name/Synonym         | CAS-No.   | Concentration (% w/w) |
|---|-----------------------------|-----------|-----------------------|
| 1,2,3-Propanetriol                        | Glycerol                    | 56-81-5   | $\geq 10 - < 30$ *    |
| Methanaminium, N,N,N-trimethyl-, chloride | Tetramethylammoniumchloride | 75-57-0   | $\geq 1 - < 5$ *      |
| DNA-directed DNA polymerase               | DNA Polymerase              | 9012-90-2 | $\geq 0 - < 0.1$ *    |

\* Actual concentration or concentration range is withheld as a trade secret

**SECTION 4. FIRST AID MEASURES**

- General advice : Move out of dangerous area.  
Show this material safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : Move to fresh air.  
If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : If skin irritation persists, call a physician.  
If on skin, rinse well with water.  
If on clothes, remove clothes.
- In case of eye contact : Flush eyes with water as a precaution.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.

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- If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Keep respiratory tract clear.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.  
Take victim immediately to hospital.
- Most important symptoms and effects, both acute and delayed : May be harmful if swallowed.  
Causes mild skin irritation.  
Causes damage to organs if swallowed.  
Causes damage to organs if swallowed.
- Notes to physician : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

---

**SECTION 5. FIRE-FIGHTING MEASURES**

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire fighting : No information available.
- Hazardous combustion products : Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)  
Gaseous hydrogen chloride (HCl).
- Further information : Standard procedure for chemical fires.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

---

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

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**SECTION 7. HANDLING AND STORAGE**

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : Do not breathe vapors/dust.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Observe label precautions.  
Electrical installations / working materials must comply with the technological safety standards.
- Further information on storage conditions : See label, package insert or internal guidelines
- Further information on storage stability : No decomposition if stored and applied as directed.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
**Ingredients with workplace control parameters**

| Components                  | CAS-No.   | Value type<br>(Form of exposure) | Control parameters /<br>Permissible concentration | Basis                                     |
|-----------------------------|-----------|----------------------------------|---|---|
| 1,2,3-Propanetriol          | 56-81-5   | TWA (Mist)                       | 10 mg/m <sup>3</sup>                              | CA BC OEL                                 |
|                             |           | TWA<br>(Respirable mist)         | 3 mg/m <sup>3</sup>                               | CA BC OEL                                 |
|                             |           | TWA (Mist)                       | 10 mg/m <sup>3</sup>                              | CA AB OEL                                 |
|                             |           | TWAEV<br>(Mist)                  | 10 mg/m <sup>3</sup>                              | CA QC OEL                                 |
| DNA-directed DNA polymerase | 9012-90-2 | IOEL                             | 0.00006 mg/m <sup>3</sup>                         | Roche Industrial Hygiene Committee (RIHC) |

**Engineering measures** : No data available

**Personal protective equipment**

Respiratory protection : In the case of vapor formation use a respirator with an approved filter.

Hand protection

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In case of contact through splashing:

|                    |                  |
|--------------------|------------------|
| Material           | : Nitrile rubber |
| Break through time | : > 30 min       |
| Glove thickness    | : > 0.11 mm      |

In case of full contact:

|                    |                |
|--------------------|----------------|
| Material           | : butyl-rubber |
| Break through time | : > 480 min    |
| Glove thickness    | : > 0.4 mm     |

Remarks : The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. This recommendation is only valid for the product mentioned in the material safety data sheet and provided by us and for the application specified by us. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water  
Tightly fitting safety goggles

Skin and body protection : Impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.  
When using do not smoke.  
Wash hands before breaks and at the end of workday.

---

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid

Color : colorless

Odor : odorless

Odor Threshold : No data available

pH : 8.7

Melting point/ range : No data available

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|  |   |   |
|--|---|---|
| Boiling point/boiling range                      | : | No data available   |
| Flash point                                      | : | does not flash  |
| Evaporation rate                                 | : | No data available   |
| Flammability (liquids)                           | : | Does not sustain combustion.<br>The product is not flammable. |
| Self-ignition                                    | : | Not applicable  |
| Upper explosion limit / Upper flammability limit | : | No data available   |
| Lower explosion limit / Lower flammability limit | : | No data available   |
| Vapor pressure                                   | : | No data available   |
| Relative vapor density                           | : | No data available   |
| Relative density                                 | : | No data available   |
| Density  | : | 1.044 g/cm <sup>3</sup>                                       |
| Solubility(ies)                                  |   |   |
| Water solubility                                 | : | completely miscible   |
| Solubility in other solvents                     | : | No data available   |
| Partition coefficient: n-octanol/water           | : | No data available   |
| Autoignition temperature                         | : | No data available   |
| Decomposition temperature                        | : | No data available   |
| Viscosity  |   |   |
| Viscosity, dynamic                               | : | No data available   |
| Viscosity, kinematic                             | : | No data available   |
| Oxidizing properties                             | : | The substance or mixture is not classified as oxidizing.      |

---

**SECTION 10. STABILITY AND REACTIVITY**

|                    |   |   |
|--------------------|---|---|
| Reactivity         | : | No dangerous reaction known under conditions of normal use. |
| Chemical stability | : | Stable under normal conditions.                             |

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|                                    |   |  |
|------------------------------------|---|--|
| Possibility of hazardous reactions | : | No dangerous reaction known under conditions of normal use.<br>No decomposition if stored and applied as directed. |
| Conditions to avoid                | : | No data available  |
| Incompatible materials             | : | Strong oxidizing agents  |
| Hazardous decomposition products   | : | No decomposition if stored and applied as directed.  |

**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity**

May be harmful if swallowed.  
Not classified due to lack of data.

**Product:**

|                           |   |  |
|---------------------------|---|--|
| Acute oral toxicity       | : | Acute toxicity estimate: 2,681 mg/kg<br>Method: Calculation method   |
|                           |   | Acute toxicity estimate: > 2,000 mg/kg<br>Method: Calculation method   |
| Acute inhalation toxicity | : | Acute toxicity estimate: > 40 mg/l<br>Exposure time: 4 h<br>Test atmosphere: vapor<br>Method: Calculation method |
| Acute dermal toxicity     | : | Acute toxicity estimate: > 5,000 mg/kg<br>Method: Calculation method   |
|                           |   | Acute toxicity estimate: > 2,000 mg/kg<br>Method: Calculation method   |

**Components:****1,2,3-Propanetriol:**

|                           |   |  |
|---------------------------|---|--|
| Acute oral toxicity       | : | LC50 (Mouse): 11,500 mg/kg   |
| Acute inhalation toxicity | : | LC50 (Rat, male): 275000 mg/m3<br>Exposure time: 7 h<br>Test atmosphere: vapor<br>GLP: no<br>Assessment: The component/mixture is minimally toxic after short term inhalation. |
| Acute dermal toxicity     | : | LD50 (Guinea pig, male and female): 56,750 mg/kg<br>GLP: no  |

**Methanaminium, N,N,N-trimethyl-, chloride:**

|                     |   |   |
|---------------------|---|---|
| Acute oral toxicity | : | LD50 Oral (Rat): 47 mg/kg<br>Method: OECD Test Guideline 401<br>GLP: no |
|---------------------|---|---|

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Acute dermal toxicity : LD50 Dermal (Rabbit): > 200 - < 500 mg/kg  
Method: OECD Test Guideline 402  
GLP: yes

**Skin corrosion/irritation**

Causes mild skin irritation.  
Not classified due to lack of data.

**Product:**

Remarks : May cause skin irritation and/or dermatitis.

**Components:****1,2,3-Propanetriol:**

Species : Rabbit  
Exposure time : 24 h  
Result : No skin irritation  
GLP : no

**Methanaminium, N,N,N-trimethyl-, chloride:**

Result : Irritating to skin.

**Serious eye damage/eye irritation**

Not classified due to lack of data.  
Not classified due to lack of data.

**Product:**

Remarks : Vapors may cause irritation to the eyes, respiratory system and the skin.

**Components:****1,2,3-Propanetriol:**

Species : Rabbit  
Result : No eye irritation  
Exposure time : 7 d  
GLP : no

**Methanaminium, N,N,N-trimethyl-, chloride:**

Species : Rabbit  
Result : No eye irritation  
Method : OECD Test Guideline 405

**Respiratory or skin sensitization****Skin sensitization**

Not classified due to lack of data.

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**Skin sensitization**

Not classified due to lack of data.

**Respiratory sensitization**

Not classified due to lack of data.

**Respiratory sensitization**

Not classified due to lack of data.

**Components:****1,2,3-Propanetriol:**

Assessment : Mild eye irritant, Mild respiratory irritant, No skin irritation

**Methanaminium, N,N,N-trimethyl-, chloride:**

Test Type : Local lymph node assay (LLNA)  
Species : Mouse  
Assessment : Does not cause skin sensitization.  
Method : OECD Test Guideline 429

**Germ cell mutagenicity**

Not classified due to lack of data.

Not classified due to lack of data.

**Components:****1,2,3-Propanetriol:**

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)  
Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Result: negative  
GLP: No information available.

Test Type: In vitro mammalian cell gene mutation test  
Test system: Chinese hamster ovary cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 476  
Result: negative  
GLP: No information available.

**Methanaminium, N,N,N-trimethyl-, chloride:**

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)  
Test system: Salmonella typhimurium  
Result: negative

Test Type: Microbial mutagenesis assay (Ames test)  
Test system: Escherichia coli  
Result: negative

**Carcinogenicity**

Not classified due to lack of data.

Not classified due to lack of data.



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Species : Rat, male and female  
Application Route : Oral  
Exposure time : 2 Years  
GLP : No information available.  
Remarks : No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

Not classified due to lack of data.

Not classified due to lack of data.

**Components:****1,2,3-Propanetriol:**

Effects on fertility : Test Type: Two-generation study  
Species: Rat, male and female  
Application Route: Oral  
Dose: 2000 mg/kg bw/day  
Fertility: NOAEL: 2,000 mg/kg body weight  
GLP: no

Effects on fetal development : Species: Rabbit, female  
Application Route: Oral  
Dose: 11.8, 54.8, 254.5, 1180 mg/kg bw/day  
Duration of Single Treatment: 29 d  
Developmental Toxicity: NOAEL: 1,180 mg/kg bw/day  
GLP: no

**STOT-single exposure**

Causes damage to organs (Central nervous system) if swallowed.

Causes damage to organs (Central nervous system) if swallowed.

**Components:****Methanaminium, N,N,N-trimethyl-, chloride:**

Routes of exposure : Ingestion  
Target Organs : Central nervous system  
Assessment : Causes damage to organs.

**DNA-directed DNA polymerase:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

**STOT-repeated exposure**

Not classified due to lack of data.

Not classified due to lack of data.

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Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Repeated dose toxicity****Components:****1,2,3-Propanetriol:**

Species : Rat, male and female  
NOAEL : 4580 mg/kg  
NOAEL : 4,580 mg/kg  
Application Route : Oral  
Exposure time : 90 d  
Number of exposures : daily  
Dose : 4580 - 25,800 mg/kg/day  
GLP : no

Species : Rat, male and female  
Application Route : Inhalation  
Test atmosphere : dust/mist  
Exposure time : 13 Weeks  
Number of exposures : 6 hours/day, 5 days/week  
Dose : 33, 165 and 660 mg/m<sup>3</sup>  
GLP : No information available.

Species : Rat  
NOAEL : 5040 mg/kg  
NOAEL : 5,040 mg/kg  
Application Route : Dermal  
Exposure time : 45 Weeks  
Number of exposures : 8 hours/day, 5 days/week  
Dose : 0.5-4.0 ml/kg  
GLP : no

Repeated dose toxicity - Assessment : Mild eye irritant, Mild respiratory irritant, No skin irritation

**Methanaminium, N,N,N-trimethyl-, chloride:**

Species : Rat  
NOAEL : 5 mg/kg  
Application Route : Oral  
Method : OECD Test Guideline 421  
GLP : yes

**Aspiration toxicity**

Not classified due to lack of data.  
Not classified due to lack of data.

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**Further information**
**Components:**
**Methanaminium, N,N,N-trimethyl-, chloride:**

Remarks : Other dangerous properties can not be excluded.

---

**SECTION 12. ECOLOGICAL INFORMATION**
**Ecotoxicity**
**Components:**
**1,2,3-Propanetriol:**

- |   |   |  |
|---|---|--|
| Toxicity to fish                                    | : | LC50 (Oncorhynchus mykiss (rainbow trout)): 54,000 mg/l<br>End point: mortality<br>Exposure time: 96 h<br>Test Type: static test<br>GLP: no                    |
| Toxicity to daphnia and other aquatic invertebrates | : | LC50 (Daphnia magna (Water flea)): 1,955 mg/l<br>End point: mortality<br>Exposure time: 48 h<br>Test Type: static test<br>Analytical monitoring: no<br>GLP: no |
| Toxicity to algae/aquatic plants                    | : | (Scenedesmus quadricauda (Green algae)): > 10,000 mg/l<br>End point: Growth rate<br>Exposure time: 8 d<br>Test Type: static test<br>GLP: no                    |
| Toxicity to microorganisms                          | : | EC50 (Pseudomonas putida): > 10,000 mg/l<br>End point: Growth rate<br>Exposure time: 16 h<br>Test Type: static test<br>GLP: No information available.          |

**Ecotoxicology Assessment**

- |   |   |   |
|---|---|---|
| Acute aquatic toxicity                      | : | This product has no known ecotoxicological effects. |
| Chronic aquatic toxicity                    | : | This product has no known ecotoxicological effects. |
| Toxicity Data on Soil                       | : | Not expected to adsorb on soil.                     |
| Other organisms relevant to the environment | : | No data available                                   |

**Methanaminium, N,N,N-trimethyl-, chloride:**

- |                  |   |   |
|------------------|---|---|
| Toxicity to fish | : | LC50 (Pimephales promelas (fathead minnow)): 462 mg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 203 |
|------------------|---|---|

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Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.16 mg/l  
Exposure time: 11 d  
GLP: yes

NOEC (Daphnia magna (Water flea)): 0.03 mg/l  
Exposure time: 11 d  
GLP: yes

LC50 (Daphnia magna (Water flea)): 1.86 mg/l  
Exposure time: 48 h  
GLP: yes

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): 115 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
GLP: yes

**Ecotoxicology Assessment**

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : No data available

**DNA-directed DNA polymerase:****Ecotoxicology Assessment**

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : No data available

**Persistence and degradability****Components:****1,2,3-Propanetriol:**

Biodegradability : aerobic  
Inoculum: activated sludge  
Concentration: 226 mg/l  
Result: Readily biodegradable.  
Biodegradation: 94 %  
Exposure time: 24 h  
GLP: no

**Methanaminium, N,N,N-trimethyl-, chloride:**

Biodegradability : Remarks: Expected to be biodegradable

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Partition coefficient: n-octanol/water : log Pow: -1.75 (25 °C)  
pH: 7.4  
Method: OECD Test Guideline 107  
GLP: no

**Methanaminium, N,N,N-trimethyl-, chloride:**

Partition coefficient: n-octanol/water : Remarks: No data available

**DNA-directed DNA polymerase:**

Partition coefficient: n-octanol/water : Remarks: No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available

---

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.  
Can be disposed as waste water, when in compliance with local regulations.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not re-use empty containers.

---

**SECTION 14. TRANSPORT INFORMATION****International Regulations****UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

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**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**Domestic regulation**

**TDG**

Not regulated as a dangerous good

**Special precautions for user**

Remarks : Not dangerous goods in the meaning of ADR/RID, ADN, IMDG-Code, ICAO/IATA-DGR

---

**SECTION 15. REGULATORY INFORMATION**

**WHMIS Classification** : D1A: Very Toxic Material Causing Immediate and Serious Toxic Effects  
D1B: Toxic Material Causing Immediate and Serious Toxic Effects  
D2B: Toxic Material Causing Other Toxic Effects

**NPRI Components** : Poly(oxy-1,2-ethanediyl),  $\alpha$ -(nonylphenyl)- $\omega$ -hydroxy-, branched, phosphates  
Hydrochloric acid  
Sulfuric acid

**The ingredients of this product are reported in the following inventories:**

AIIC : Not in compliance with the inventory

DSL : This product contains the following components that are not on the Canadian DSL nor NDSL.

2'-Deoxyguanosine 5'-triphosphate trisodium salt

Adenosine 5'-(tetrahydrogen triphosphate), 2'-deoxy-

Thymidine 5'-(tetrahydrogen triphosphate), sodium salt

2'-Deoxycytidine 5'-triphosphate disodium salt

MAB / PAB

dUTP diphosphatase

DNA-directed DNA polymerase

NZIoC : On the inventory, or in compliance with the inventory

ENCS : Not in compliance with the inventory

ISHL : Not in compliance with the inventory

KECI : Not in compliance with the inventory

PICCS : Not in compliance with the inventory

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|       |   |
|-------|---|
| IECSC | : Not in compliance with the inventory                        |
| TCSI  | : Not in compliance with the inventory                        |
| TSCA  | : Product contains substance(s) not listed on TSCA inventory. |
| TECI  | : Not in compliance with the inventory                        |

### Canadian lists

No substances are subject to a Significant New Activity Notification.

---

## SECTION 16. OTHER INFORMATION

### Full text of other abbreviations

|                    |   |
|--------------------|---|
| CA AB OEL          | : Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)   |
| CA BC OEL          | : Canada. British Columbia OEL  |
| CA QC OEL          | : Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants |
| CA AB OEL / TWA    | : 8-hour Occupational exposure limit  |
| CA BC OEL / TWA    | : 8-hour time weighted average  |
| CA QC OEL / TWA EV | : Time-weighted average exposure value  |

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan

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Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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Product name : PCR Primer Mix (10x)

Other means of identification : No data available

**Manufacturer or supplier's details**

Company name of supplier : Roche Diagnostic Canada

Address : 201 Boulevard Armand-Frappier  
Laval, QC, H7V 4A2, Canada

Telephone : 1-877-273-3433

Telefax : 1-877-686-1598

E-mail address : laval.techinfo@roche.com

Emergency telephone

In case of emergencies: : CHEMTREC 1-800-424-9300

Centre for detoxification: : Canadian Association of  
Poison Control Centres <http://www.capcc.ca>**Recommended use of the chemical and restrictions on use**Recommended use : Laboratory chemicals  
Refer to product literature for further details.

---

**SECTION 2. HAZARDS IDENTIFICATION****GHS classification in accordance with the Hazardous Products Regulations**

Not a hazardous substance or mixture.

**GHS label elements**

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

**Other hazards**

None known.

---

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Components**

No hazardous ingredients

---

**SECTION 4. FIRST AID MEASURES**

General advice : Do not leave the victim unattended.

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|   |  |
|---|--|
| If inhaled  | : Move to fresh air.<br>If unconscious, place in recovery position and seek medical advice.<br>If symptoms persist, call a physician.  |
| In case of skin contact                                     | : If on skin, rinse well with water.   |
| In case of eye contact                                      | : Immediately flush eye(s) with plenty of water.<br>Remove contact lenses.<br>Protect unharmed eye.<br>If eye irritation persists, consult a specialist.   |
| If swallowed  | : Keep respiratory tract clear.<br>Do not give milk or alcoholic beverages.<br>Never give anything by mouth to an unconscious person.<br>If symptoms persist, call a physician.<br>Rinse mouth with water. |
| Most important symptoms and effects, both acute and delayed | : None known.  |
| Notes to physician  | : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.   |

---

**SECTION 5. FIRE-FIGHTING MEASURES**

|  |   |
|--|---|
| Suitable extinguishing media                   | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.   |
| Specific hazards during fire fighting          | : No information available.   |
| Hazardous combustion products                  | : No hazardous combustion products are known  |
| Further information                            | : Standard procedure for chemical fires.<br>Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Special protective equipment for fire-fighters | : Wear self-contained breathing apparatus for firefighting if necessary.  |

---

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

|   |   |
|---|---|
| Personal precautions, protective equipment and emergency procedures | : Refer to protective measures listed in sections 7 and 8.                          |
| Environmental precautions   | : Local authorities should be advised if significant spillages cannot be contained. |

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Methods and materials for containment and cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).  
Keep in suitable, closed containers for disposal.

---

**SECTION 7. HANDLING AND STORAGE**

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : For personal protection see section 8.

Conditions for safe storage : Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : See label, package insert or internal guidelines

Materials to avoid : No materials to be especially mentioned.

Further information on storage stability : No decomposition if stored and applied as directed.

---

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Engineering measures** : No data available

**Personal protective equipment**

Respiratory protection : No personal respiratory protective equipment normally required.

**Hand protection**

In case of contact through splashing:

Material : Nitrile rubber

Break through time : > 30 min

Glove thickness : > 0.11 mm

In case of full contact:

Material : butyl-rubber

Break through time : > 480 min

Glove thickness : > 0.4 mm

Remarks : The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. This recommendation is only valid for the product mentioned in the material safety data sheet and provided by us and for the application specified by us. Please observe the instructions regarding permeability and

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breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Safety glasses

Skin and body protection : Protective suit

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

---

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid

Color : colorless

Odor : odorless

Odor Threshold : No data available

pH : 7.7

Melting point/ range : No data available

Boiling point/boiling range : No data available

Flash point : does not flash

Evaporation rate : No data available

Flammability (liquids) : Does not sustain combustion.  
The product is not flammable.

Self-ignition : Not applicable

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure : No data available

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|  |   |  |
|--|---|--|
| Relative vapor density                 | : | No data available  |
| Relative density                       | : | No data available  |
| Density                                | : | 0.996 g/cm <sup>3</sup>                                  |
| Solubility(ies)                        |   |  |
| Water solubility                       | : | completely miscible                                      |
| Solubility in other solvents           | : | No data available  |
| Partition coefficient: n-octanol/water | : | No data available  |
| Autoignition temperature               | : | No data available  |
| Decomposition temperature              | : | No data available  |
| Viscosity                              |   |  |
| Viscosity, dynamic                     | : | No data available  |
| Viscosity, kinematic                   | : | No data available  |
| Explosive properties                   | : | Not explosive  |
| Oxidizing properties                   | : | The substance or mixture is not classified as oxidizing. |

---

**SECTION 10. STABILITY AND REACTIVITY**

|                                    |   |  |
|------------------------------------|---|--|
| Reactivity                         | : | No dangerous reaction known under conditions of normal use.  |
| Chemical stability                 | : | Stable under normal conditions.  |
| Possibility of hazardous reactions | : | No dangerous reaction known under conditions of normal use.<br>Stable under recommended storage conditions.<br>No hazards to be specially mentioned. |
| Conditions to avoid                | : | No data available  |
| Incompatible materials             | : | Strong oxidizing agents  |
| Hazardous decomposition products   | : | No decomposition if stored and applied as directed.  |

---

**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity**Not classified due to lack of data.  
Not classified due to lack of data.

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**Skin corrosion/irritation**

Not classified due to lack of data.  
Not classified due to lack of data.

**Serious eye damage/eye irritation**

Not classified due to lack of data.  
Not classified due to lack of data.

**Respiratory or skin sensitization****Skin sensitization**

Not classified due to lack of data.

**Skin sensitization**

Not classified due to lack of data.

**Respiratory sensitization**

Not classified due to lack of data.

**Respiratory sensitization**

Not classified due to lack of data.

**Germ cell mutagenicity**

Not classified due to lack of data.  
Not classified due to lack of data.

**Carcinogenicity**

Not classified due to lack of data.  
Not classified due to lack of data.

**Reproductive toxicity**

Not classified due to lack of data.  
Not classified due to lack of data.

**STOT-single exposure**

Not classified due to lack of data.  
Not classified due to lack of data.

**STOT-repeated exposure**

Not classified due to lack of data.  
Not classified due to lack of data.

**Aspiration toxicity**

Not classified due to lack of data.  
Not classified due to lack of data.

---

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

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**Mobility in soil**

No data available

**Other adverse effects**

No data available

---

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Can be disposed as waste water, when in compliance with local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not re-use empty containers.

---

**SECTION 14. TRANSPORT INFORMATION****International Regulations****UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**Domestic regulation****TDG**

Not regulated as a dangerous good

**Special precautions for user**

Remarks : Not dangerous goods in the meaning of ADR/RID, ADN, IMDG-Code, ICAO/IATA-DGR

---

**SECTION 15. REGULATORY INFORMATION**

**WHMIS Classification** : Not controlled.

**NPRI Components** : Hydrochloric acid

**The ingredients of this product are reported in the following inventories:**

AIIC : Not in compliance with the inventory

DSL : This product contains the following components that are not on the Canadian DSL nor NDSL.

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### Primer / Oligonucleotide / Probe

|       |   |
|-------|---|
| NZIoC | : On the inventory, or in compliance with the inventory       |
| ENCS  | : Not in compliance with the inventory                        |
| ISHL  | : Not in compliance with the inventory                        |
| KECI  | : Not in compliance with the inventory                        |
| PICCS | : Not in compliance with the inventory                        |
| IECSC | : Not in compliance with the inventory                        |
| TCSI  | : Not in compliance with the inventory                        |
| TSCA  | : Product contains substance(s) not listed on TSCA inventory. |
| TECI  | : Not in compliance with the inventory                        |

### Canadian lists

No substances are subject to a Significant New Activity Notification.

## SECTION 16. OTHER INFORMATION

### Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the



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Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Revision Date : 10/07/2024  
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Product name : Bead Wash Buffer (2.5x)

Other means of identification : No data available

**Manufacturer or supplier's details**

Company name of supplier : Roche Diagnostic Canada

Address : 201 Boulevard Armand-Frappier  
Laval, QC, H7V 4A2, Canada

Telephone : 1-877-273-3433

Telefax : 1-877-686-1598

E-mail address : laval.techinfo@roche.com

Emergency telephone

In case of emergencies: : CHEMTREC 1-800-424-9300

Centre for detoxification: : Canadian Association of  
Poison Control Centres <http://www.capcc.ca>**Recommended use of the chemical and restrictions on use**Recommended use : Laboratory chemicals  
Refer to product literature for further details.

---

**SECTION 2. HAZARDS IDENTIFICATION****GHS classification in accordance with the Hazardous Products Regulations**

Not a hazardous substance or mixture.

**GHS label elements**

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

**Other hazards**

None known.

---

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Components**

No hazardous ingredients

---

**SECTION 4. FIRST AID MEASURES**

General advice : Do not leave the victim unattended.

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|   |  |
|---|--|
| If inhaled  | : Move to fresh air.<br>If unconscious, place in recovery position and seek medical advice.<br>If symptoms persist, call a physician.  |
| In case of skin contact                                     | : If on skin, rinse well with water.   |
| In case of eye contact                                      | : Immediately flush eye(s) with plenty of water.<br>Remove contact lenses.<br>Protect unharmed eye.<br>If eye irritation persists, consult a specialist.   |
| If swallowed  | : Keep respiratory tract clear.<br>Do not give milk or alcoholic beverages.<br>Never give anything by mouth to an unconscious person.<br>If symptoms persist, call a physician.<br>Rinse mouth with water. |
| Most important symptoms and effects, both acute and delayed | : None known.  |
| Notes to physician  | : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.   |

---

**SECTION 5. FIRE-FIGHTING MEASURES**

|  |   |
|--|---|
| Suitable extinguishing media                   | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.   |
| Specific hazards during fire fighting          | : No information available.   |
| Hazardous combustion products                  | : Gaseous hydrogen chloride (HCl).<br>Sodium oxides   |
| Further information                            | : Standard procedure for chemical fires.<br>Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Special protective equipment for fire-fighters | : Wear self-contained breathing apparatus for firefighting if necessary.  |

---

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

|   |   |
|---|---|
| Personal precautions, protective equipment and emergency procedures | : Refer to protective measures listed in sections 7 and 8.                          |
| Environmental precautions   | : Local authorities should be advised if significant spillages cannot be contained. |

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Methods and materials for containment and cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).  
Keep in suitable, closed containers for disposal.

---

**SECTION 7. HANDLING AND STORAGE**

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.

Conditions for safe storage : Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : See label, package insert or internal guidelines

Materials to avoid : No materials to be especially mentioned.

Further information on storage stability : No decomposition if stored and applied as directed.

---

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Engineering measures** : No data available**Personal protective equipment**

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection

Material : Protective gloves

Remarks : The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. This recommendation is only valid for the product mentioned in the material safety data sheet and provided by us and for the application specified by us. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the

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producers of the protective gloves.

Eye protection : Safety glasses

Skin and body protection : Protective suit

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid

Color : colorless

Odor : none

Odor Threshold : No data available

pH : 7.8

Melting point/ range : No data available

Boiling point/boiling range : No data available

Flash point : does not flash

Evaporation rate : No data available

Self-ignition : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure : No data available

Relative vapor density : No data available

Relative density : No data available

Solubility(ies)

Water solubility : completely miscible

Solubility in other solvents : No data available

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|  |   |  |
|--|---|--|
| Partition coefficient: n-octanol/water | : | No data available  |
| Autoignition temperature               | : | No data available  |
| Decomposition temperature              | : | No data available  |
| Viscosity                              |   |  |
| Viscosity, dynamic                     | : | No data available  |
| Viscosity, kinematic                   | : | No data available  |
| Explosive properties                   | : | Not explosive  |
| Oxidizing properties                   | : | The substance or mixture is not classified as oxidizing. |

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**SECTION 10. STABILITY AND REACTIVITY**

|                                    |   |   |
|------------------------------------|---|---|
| Reactivity                         | : | No dangerous reaction known under conditions of normal use.                           |
| Chemical stability                 | : | Stable under normal conditions.   |
| Possibility of hazardous reactions | : | Stable under recommended storage conditions.<br>No hazards to be specially mentioned. |
| Conditions to avoid                | : | No data available   |
| Incompatible materials             | : | No data available   |
| Hazardous decomposition products   | : | No data available   |

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**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity**Not classified due to lack of data.  
Not classified due to lack of data.**Product:**

|                     |   |  |
|---------------------|---|--|
| Acute oral toxicity | : | Acute toxicity estimate: > 5,000 mg/kg<br>Method: Calculation method |
|                     |   | Acute toxicity estimate: > 2,000 mg/kg<br>Method: Calculation method |

**Skin corrosion/irritation**Not classified due to lack of data.  
Not classified due to lack of data.

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**Serious eye damage/eye irritation**

Not classified due to lack of data.  
Not classified due to lack of data.

**Respiratory or skin sensitization****Skin sensitization**

Not classified due to lack of data.

**Skin sensitization**

Not classified due to lack of data.

**Respiratory sensitization**

Not classified due to lack of data.

**Respiratory sensitization**

Not classified due to lack of data.

**Germ cell mutagenicity**

Not classified due to lack of data.  
Not classified due to lack of data.

**Carcinogenicity**

Not classified due to lack of data.  
Not classified due to lack of data.

**Reproductive toxicity**

Not classified due to lack of data.  
Not classified due to lack of data.

**STOT-single exposure**

Not classified due to lack of data.  
Not classified due to lack of data.

**STOT-repeated exposure**

Not classified due to lack of data.  
Not classified due to lack of data.

**Aspiration toxicity**

Not classified due to lack of data.  
Not classified due to lack of data.

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Product:****Ecotoxicology Assessment**

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : No data available

**Persistence and degradability**

No data available

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**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available

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**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Can be disposed as waste water, when in compliance with local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not re-use empty containers.

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**SECTION 14. TRANSPORT INFORMATION****International Regulations****UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**Domestic regulation****TDG**

Not regulated as a dangerous good

**Special precautions for user**

Remarks : Not dangerous goods in the meaning of ADR/RID, ADN, IMDG-Code, ICAO/IATA-DGR

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**SECTION 15. REGULATORY INFORMATION**

**WHMIS Classification** : Not controlled.

**The ingredients of this product are reported in the following inventories:**

AIIC : On the inventory, or in compliance with the inventory

DSL : All components of this product are on the Canadian DSL



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|       |   |
|-------|---|
| NZIoC | : On the inventory, or in compliance with the inventory |
| ENCS  | : On the inventory, or in compliance with the inventory |
| ISHL  | : On the inventory, or in compliance with the inventory |
| KECI  | : On the inventory, or in compliance with the inventory |
| PICCS | : On the inventory, or in compliance with the inventory |
| IECSC | : On the inventory, or in compliance with the inventory |
| TCSI  | : On the inventory, or in compliance with the inventory |
| TSCA  | : All substances listed as active on the TSCA inventory |
| TECI  | : Not in compliance with the inventory                  |

### Canadian lists

No substances are subject to a Significant New Activity Notification.

## SECTION 16. OTHER INFORMATION

### Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan

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Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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