

Material Safety Data Sheet



2X Hi-RPM Hybridization Buffer, 25 ml. Agilent Part Number 5190-0403

1. Product and company identification

Product name : 2X Hi-RPM Hybridization Buffer, 25 ml. Agilent Part Number 5190-0403
Part No. : 5190-0403
Manufacturer / Supplier : Agilent Technologies, Inc.
Logistics Center - Americas
500 Ships Landing Way
New Castle, Delaware 19720
Emergency telephone number : 1-302-633-8777
1-877-4 Agilent (Information Telephone Number)

2. Hazards identification

Physical state : Liquid.
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Emergency overview - Signal Word : Warning!
Emergency overview - Label Statement : CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: SKIN, CENTRAL NERVOUS SYSTEM. MAY BE HARMFUL IF SWALLOWED.
Emergency overview : Do not ingest. Wash thoroughly after handling.
Potential acute health effects
Eyes : No known significant effects or critical hazards.
Skin : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Ingestion : Harmful if swallowed.
Medical conditions aggravated by over-exposure : Repeated or prolonged exposure to the substance can produce target organs damage.

See toxicological information (section 11)

3. Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>%</u>
polyethylene glycol octaphenol ether	9002-93-1	0 - 100
sulfuric acid, monododecyl ester, lithium salt	2044-56-6	0 - 100
ethylenediamine tetraacetic acid	60-00-4	0 - 100
lithium chloride	7447-41-8	0 - 100
4-morpholineethanesulfonic acid	4432-31-9	0 - 100
oxirane, methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propyl] ether	134180-76-0	0 - 60
Water	7732-18-5	0 - 50

Use of the substance/preparation : 25 ml.

Synonyms : alfenol 3; alfenol 9; antarox a-200; conco nix-100; 3,6,9,12,15,18,21,24,27,30-decaoxatriacontan-1-ol, 30-(p-(1,1,3,3-tetramethylbutyl)phenyl)-; hydrol sw; hyonic pe-250; igepal ca-630; marlophen 820; neutronyx 605; octoxinol; octoxynol; octoxynol 3; octoxynol 9; octyl phenol condensed with 12-13 moles ethylene oxide; p-tert-octylphenoxy polyethoxyethanol; ope 30; peg-9 octyl phenyl ether; polyethylene glycol monoether with p-tert-octylphenyl; polyethylene glycol mono(4-octylphenyl) ether; polyethylene glycol mono(4-tert-octylphenyl) ether; polyethylene glycol mono(p-tert-octylphenyl) ether; polyethylene glycol mono(p-(1,1,3,3-tetramethylbutyl)phenyl) ether; polyethylene glycol octylphenol ether; polyethylene glycol 450 octyl phenyl ether; polyethylene glycol p-octylphenyl ether; polyethylene glycol p-tert-octylphenyl ether; polyethylene glycol p-1,1,3,3-tetramethylbutylphenyl ether; poly(oxy-1,2-ethanediyl), alpha-

3 . Composition/information on ingredients

(4-(1,1,3,3-tetramethylbutyl)phenyl)-omega-hydroxy- (9ci); polyoxyethylene mono (octylphenyl) ether; polyoxyethylene (9) octylphenyl ether; polyoxyethylene (13) octylphenyl ether; poly(oxyethylene)p-tert-octylphenyl ether; preceptin; triton x; triton x 35; triton x 45; triton x 100; triton x 102; triton x 165; triton x 305; triton x 405; triton x 705; tx 100; sulfuric acid, monododecyl ester, lithium salt; acide ethylenediaminetetraacetique (french); celon a; cheelox; chemcolox 340; celon ath; complexon ii; 3,6-diazaoctanedioic acid, 3,6-bis (carboxymethyl)-; edathamil; edetic; edetic acid; edta; edta (chelating agent); edta acid; endrate; ethylenediaminetetraacetate; ethylenediaminetetraacetic acid; ethylenediamine-n,n,n',n'-tetraacetic acid; ethylenedinitrilotetraacetic acid; glycine, n,n'-1,2-ethanediylbis(n-(carboxymethyl)- (9ci); havidote; metaquest a; nervanaid b acid; nullapon b acid; nullapon bf acid; perma kleeer 50 acid; sequestrene aa; sequestric acid; sequestrol; tetrine acid; titriplex; tricon bw; trilon b; trilon bw; versene; versene acid; warkeelate acid; acetic acid, (ethylenedinitrilo)tetra-; (ethylenedinitrilo)tetraacetic acid; glycine, n,n'-1,2-ethanediylbis(n-(carboxymethyl)-; hampene; ethylenediamine tetraacetic acid (edta); chlorure de lithium (french); 4-morpholineethanesulfonic acid.

4 . First aid measures

- Eye contact** : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if adverse health effects persist or are severe.
- Skin contact** : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if adverse health effects persist or are severe.
- Inhalation** : If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if adverse health effects persist or are severe.
- Ingestion** : Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if adverse health effects persist or are severe.

5 . Fire-fighting measures

- Flammability of the product** : Non-flammable.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Special exposure hazards - Explosibility** : No specific hazard.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 . Accidental release measures

- Personal precautions** : Avoid contact with eyes, skin and clothing.
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
- Methods for cleaning up** : If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dike spilled material or otherwise contain it to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

7 . Handling and storage

- Handling** : Do not ingest. Wash thoroughly after handling.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area.

8 . Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control airborne levels. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Personal protection**
- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
- Skin** : Chemical resistant protective gloves and clothing are recommended. The choice of protective gloves or clothing must be based on chemical resistance and other use requirements. Generally, BUNA-N offers acceptable chemical resistance. Individuals who are acutely and specifically sensitive to this chemical may require additional protective clothing.
- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

9 . Physical and chemical properties

- Physical state** : Liquid.
- pH** : Not available.
- Boiling/condensation point** : The lowest known value is 100°C (212°F) (Water).
- Melting/freezing point** : May start to solidify at 0°C (32°F) based on data for: Water.
- Relative density** : The only known value is 0.86 (Water = 1) (ethylenediamine tetraacetic acid).
- Solubility** : Soluble in cold water.

10 . Stability and reactivity

- Stability and reactivity** : The product is stable.
- Hazardous decomposition products** : These products are halogenated compounds, hydrogen chloride.

11 . Toxicological information

Toxicity data

<u>Product/ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
polyethylene glycol octaphenol ether	LD50	1800 mg/kg	Oral	Rat
	LD50	1900 mg/kg	Oral	Rat
	LD50	3800 mg/kg	Oral	Rat
ethylenediamine tetraacetic acid	LD50	30 mg/kg	Oral	Mouse
lithium chloride	LD50	526 mg/kg	Oral	Rat
	LD50	800 mg/kg	Oral	Rabbit
	LD50	422 mg/kg	Oral	wild bird species

- Chronic effects on humans** : Contains material which causes damage to the following organs: skin, central nervous system (CNS).

Specific effects

11 . Toxicological information

- Carcinogenic effects** : No known significant effects or critical hazards.
Mutagenic effects : No known significant effects or critical hazards.
Teratogenicity / Reproductive toxicity : No known significant effects or critical hazards.
Sensitization
Ingestion : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Eyes : No known significant effects or critical hazards.
Skin : No known significant effects or critical hazards.

12 . Ecological information

Ecotoxicity data

Product/ingredient name	Species	Period	Result
polyethylene glycol octaphenol ether	Pimephales promelas (LC50)	96 hour/hours	4.5 mg/l
	Pimephales promelas (LC50)	96 hour/hours	5.38 mg/l
	Pimephales promelas (LC50)	96 hour/hours	6 mg/l
	Lepomis macrochirus (LC50)	96 hour/hours	>10 mg/l
	Lepomis macrochirus (LC50)	96 hour/hours	12 mg/l
	Lepomis macrochirus (LC50)	96 hour/hours	531 mg/l
ethylenediamine tetraacetic acid	Daphnia magna (EC50)	48 hour/hours	113 mg/l
	Lepomis macrochirus (LC50)	96 hour/hours	41 mg/l
	Pimephales promelas (LC50)	96 hour/hours	59.8 mg/l
	Lepomis macrochirus (LC50)	96 hour/hours	159 mg/l
	Lepomis macrochirus (LC50)	96 hour/hours	532 mg/l

- Environmental precautions** : No known significant effects or critical hazards.
Products of degradation : These products are carbon oxides (CO, CO₂) and water, nitrogen oxides (NO, NO₂ etc.), sulfur oxides (SO₂, SO₃ etc.), halogenated compounds. Some metallic oxides.
Toxicity of the products of biodegradation : The products of degradation are less toxic than the product itself.

13 . Disposal considerations

- Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14 . Transport information

Not regulated.

15 . Regulatory information

- HCS Classification** : Target organ effects
- U.S. Federal regulations** : TSCA 8(a) PAIR: polyethylene glycol octaphenol ether
TSCA 8(b) inventory: polyethylene glycol octaphenol ether; sulfuric acid, monododecyl ester, lithium salt; Water; oxirane, methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propyl] ether; ethylenediamine tetraacetic acid; lithium chloride; 4-morpholineethanesulfonic acid
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: polyethylene glycol octaphenol ether; ethylenediamine tetraacetic acid; lithium chloride
SARA 311/312 MSDS distribution - chemical inventory - hazard identification:
polyethylene glycol octaphenol ether: Immediate (acute) health hazard, Delayed (chronic) health hazard; ethylenediamine tetraacetic acid: Immediate (acute) health hazard, Delayed (chronic) health hazard; lithium chloride: Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: ethylenediamine tetraacetic acid
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.
- State regulations** : Pennsylvania RTK: ethylenediamine tetraacetic acid: (environmental hazard, generic environmental hazard)
Massachusetts RTK: ethylenediamine tetraacetic acid
New Jersey: ethylenediamine tetraacetic acid
- EU regulations**
- Hazard symbol/symbols** : Harmful
- Risk phrases** : R22- Harmful if swallowed.
- International regulations**
- International lists** : Australia (NICNAS): polyethylene glycol octaphenol ether; sulfuric acid, monododecyl ester, lithium salt; Water; oxirane, methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propyl] ether; ethylenediamine tetraacetic acid; lithium chloride; 4-morpholineethanesulfonic acid

China: polyethylene glycol octaphenol ether; sulfuric acid, monododecyl ester, lithium salt; Water; oxirane, methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propyl] ether; ethylenediamine tetraacetic acid; lithium chloride; 4-morpholineethanesulfonic acid

Germany water class: polyethylene glycol octaphenol ether; lithium chloride

Japan (METI): sulfuric acid, monododecyl ester, lithium salt; Water; ethylenediamine tetraacetic acid; lithium chloride

Japan (MOL): 4-morpholineethanesulfonic acid

Korea (TCCL): polyethylene glycol octaphenol ether; sulfuric acid, monododecyl ester, lithium salt; Water; oxirane, methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propyl] ether; ethylenediamine tetraacetic acid; lithium chloride; 4-morpholineethanesulfonic acid

Philippines (RA6969): polyethylene glycol octaphenol ether; Water; oxirane, methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propyl] ether; ethylenediamine tetraacetic acid; lithium chloride

16 . Other information

Label requirements	: CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: SKIN, CENTRAL NERVOUS SYSTEM. MAY BE HARMFUL IF SWALLOWED.
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Notice to reader

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