SAFETY DATA SHEET

Agilent Technologies

FISH Hybridization Buffer and Mounting Buffer

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Product name : FISH Hybridization Buffer and Mounting Buffer

Part No. (Kit) : G9407A, G9408A

Part No. : FISH Hybridization Buffer G9400-60000
FISH Mounting Buffer G9403-60000

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	
Analytical reagent.	
FISH Hybridization Buffer	0.1 ml
FISH Mounting Buffer	0.1 ml

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : FISH Hybridization Buffer Mixture
FISH Mounting Buffer Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

FISH Hybridization Buffer

H360D TOXIC TO REPRODUCTION (Unborn child) - Category 1B

Ingredients of unknown toxicity : FISH Hybridization Buffer Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 4.4%
FISH Mounting Buffer Not applicable.

Ingredients of unknown ecotoxicity : FISH Hybridization Buffer Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 14.4%
FISH Mounting Buffer Not applicable.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

SECTION 2: Hazards identification

Hazard pictograms :

Signal word	:	FISH Hybridization Buffer	Danger
		FISH Mounting Buffer	No signal word.
Hazard statements	:	FISH Hybridization Buffer	**GHS08** - May damage the unborn child.
		FISH Mounting Buffer	No known significant effects or critical hazards.
Precautionary statements			
Prevention	:	FISH Hybridization Buffer	P201 - Obtain special instructions before use. P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
		FISH Mounting Buffer	Not applicable.
Response	:	FISH Hybridization Buffer	P308 + P313 - IF exposed or concerned: Get medical attention.
		FISH Mounting Buffer	Not applicable.
Storage	:	FISH Hybridization Buffer	P405 - Store locked up.
		FISH Mounting Buffer	Not applicable.
Disposal	:	FISH Hybridization Buffer	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
		FISH Mounting Buffer	Not applicable.
Hazardous ingredients	:	**FISH Hybridization Buffer** Formamide	
Supplemental label elements	:	FISH Hybridization Buffer	Not applicable.
		FISH Mounting Buffer	Contains p-phenylenediamine. May produce an allergic reaction. Safety data sheet available on request.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	:	FISH Hybridization Buffer	Restricted to professional users.
		FISH Mounting Buffer	Not applicable.
Special packaging requirements			
Tactile warning of danger	:	FISH Hybridization Buffer	Not applicable.
		FISH Mounting Buffer	Not applicable.

2.3 Other hazards

Other hazards which do not result in classification	:	FISH Hybridization Buffer	None known.
		FISH Mounting Buffer	None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures	:	FISH Hybridization Buffer	Mixture
		FISH Mounting Buffer	Mixture

Product/ingredient name	Identifiers	%	Classification	Type
FISH Hybridization Buffer				
Formamide	EC: 200-842-0 CAS: 75-12-7 Index: 616-052-00-8	≥50 - ≤75	Repr. 1B, H360D (Unborn child)	[1] [2]
Sodium chloride	EC: 231-598-3 CAS: 7647-14-5	<10	Eye Irrit. 2, H319	[1]
FISH Mounting Buffer				
Glycerol	EC: 200-289-5 CAS: 56-81-5	≥90	Not classified.	[2]

SECTION 3: Composition/information on ingredients

			See Section 16 for the full text of the H statements declared above.	

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
[5] Substance of equivalent concern

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : FISH Hybridization Buffer — Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

FISH Mounting Buffer — Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : FISH Hybridization Buffer — Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

FISH Mounting Buffer — Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact : FISH Hybridization Buffer — Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

FISH Mounting Buffer — Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion : FISH Hybridization Buffer — Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

FISH Mounting Buffer — Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If

SECTION 4: First aid measures

			material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Protection of first-aiders	:	FISH Hybridization Buffer	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
		FISH Mounting Buffer	No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	:	FISH Hybridization Buffer	No known significant effects or critical hazards.
		FISH Mounting Buffer	No known significant effects or critical hazards.
Inhalation	:	FISH Hybridization Buffer	No known significant effects or critical hazards.
		FISH Mounting Buffer	No known significant effects or critical hazards.
Skin contact	:	FISH Hybridization Buffer	No known significant effects or critical hazards.
		FISH Mounting Buffer	No known significant effects or critical hazards.
Ingestion	:	FISH Hybridization Buffer	No known significant effects or critical hazards.
		FISH Mounting Buffer	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	:	FISH Hybridization Buffer	No specific data.
		FISH Mounting Buffer	No specific data.
Inhalation	:	FISH Hybridization Buffer	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
		FISH Mounting Buffer	No specific data.
Skin contact	:	FISH Hybridization Buffer	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
		FISH Mounting Buffer	No specific data.
Ingestion	:	FISH Hybridization Buffer	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
		FISH Mounting Buffer	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	FISH Hybridization Buffer	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
		FISH Mounting Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	FISH Hybridization Buffer	No specific treatment.
		FISH Mounting Buffer	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	FISH Hybridization Buffer	Use an extinguishing agent suitable for the surrounding fire.
		FISH Mounting Buffer	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	FISH Hybridization Buffer	None known.
		FISH Mounting Buffer	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	FISH Hybridization Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
		FISH Mounting Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	:	FISH Hybridization Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides
		FISH Mounting Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide

5.3 Advice for firefighters

Special precautions for fire-fighters	:	FISH Hybridization Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
		FISH Mounting Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	FISH Hybridization Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
		FISH Mounting Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	FISH Hybridization Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
		FISH Mounting Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

SECTION 6: Accidental release measures

For emergency responders	:	FISH Hybridization Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
		FISH Mounting Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
6.2 Environmental precautions	:	FISH Hybridization Buffer	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
		FISH Mounting Buffer	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	FISH Hybridization Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
		FISH Mounting Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections	:	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures	:	FISH Hybridization Buffer	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
		FISH Mounting Buffer	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	:	FISH Hybridization Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
		FISH Mounting Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also

SECTION 7: Handling and storage

Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

FISH Hybridization Buffer	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
FISH Mounting Buffer	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations	FISH Hybridization Buffer	Industrial applications, Professional applications.
	FISH Mounting Buffer	Industrial applications, Professional applications.
Industrial sector specific solutions	FISH Hybridization Buffer	Not applicable.
	FISH Mounting Buffer	Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
FISH Hybridization Buffer Formamide	**EH40/2005 WELs (United Kingdom (UK), 12/2011).** STEL: 56 mg/m³ 15 minutes. STEL: 30 ppm 15 minutes. TWA: 37 mg/m³ 8 hours. TWA: 20 ppm 8 hours.
FISH Mounting Buffer Glycerol	**EH40/2005 WELs (United Kingdom (UK), 12/2011).** TWA: 10 mg/m³ 8 hours. Form: Mist

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

SECTION 8: Exposure controls/personal protection

8.2 Exposure controls

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

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.

Eye/face protection : 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, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	FISH Hybridization Buffer	Liquid.
		FISH Mounting Buffer	Liquid.
Colour	:	FISH Hybridization Buffer	Not available.
		FISH Mounting Buffer	Not available.
Odour	:	FISH Hybridization Buffer	Not available.
		FISH Mounting Buffer	Not available.
Odour threshold	:	FISH Hybridization Buffer	Not available.
		FISH Mounting Buffer	Not available.
pH	:	FISH Hybridization Buffer	Not available.
		FISH Mounting Buffer	7.5 to 8

SECTION 9: Physical and chemical properties

Melting point/freezing point	:	FISH Hybridization Buffer	Not available.
		FISH Mounting Buffer	Not available.
Initial boiling point and boiling range	:	FISH Hybridization Buffer	Not available.
		FISH Mounting Buffer	Not available.
Flash point	:	FISH Hybridization Buffer	Not available.
		FISH Mounting Buffer	Not available.
Evaporation rate	:	FISH Hybridization Buffer	Not available.
		FISH Mounting Buffer	Not available.
Flammability (solid, gas)	:	FISH Hybridization Buffer	Not applicable.
		FISH Mounting Buffer	Not applicable.
Upper/lower flammability or explosive limits	:	FISH Hybridization Buffer	Not available.
		FISH Mounting Buffer	Not available.
Vapour pressure	:	FISH Hybridization Buffer	Not available.
		FISH Mounting Buffer	Not available.
Vapour density	:	FISH Hybridization Buffer	Not available.
		FISH Mounting Buffer	Not available.
Relative density	:	FISH Hybridization Buffer	Not available.
		FISH Mounting Buffer	Not available.
Solubility(ies)	:	FISH Hybridization Buffer	Easily soluble in the following materials: cold water and hot water.
		FISH Mounting Buffer	Soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	:	FISH Hybridization Buffer	Not available.
		FISH Mounting Buffer	Not available.
Auto-ignition temperature	:	FISH Hybridization Buffer	Not available.
		FISH Mounting Buffer	Not available.
Decomposition temperature	:	FISH Hybridization Buffer	Not available.
		FISH Mounting Buffer	Not available.
Viscosity	:	FISH Hybridization Buffer	Not available.
		FISH Mounting Buffer	Not available.
Explosive properties	:	FISH Hybridization Buffer	Not available.
		FISH Mounting Buffer	Not available.
Oxidising properties	:	FISH Hybridization Buffer	Not available.
		FISH Mounting Buffer	Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity : FISH Hybridization Buffer: No specific test data related to reactivity available for this product or its ingredients.
FISH Mounting Buffer: No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : FISH Hybridization Buffer: The product is stable.
FISH Mounting Buffer: The product is stable.

10.3 Possibility of hazardous reactions : FISH Hybridization Buffer: Under normal conditions of storage and use, hazardous reactions will not occur.
FISH Mounting Buffer: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : FISH Hybridization Buffer: No specific data.
FISH Mounting Buffer: No specific data.

10.5 Incompatible materials : FISH Hybridization Buffer: May react or be incompatible with oxidising materials.
FISH Mounting Buffer: May react or be incompatible with oxidising materials.

10.6 Hazardous decomposition products : FISH Hybridization Buffer: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
FISH Mounting Buffer: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
FISH Hybridization Buffer				
Formamide	LD50 Dermal	Rabbit	17 g/kg	-
	LD50 Oral	Rat	4000 mg/kg	-
Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-

Acute toxicity estimates

Route	ATE value
FISH Mounting Buffer	
Oral	80070.4 mg/kg
Dermal	300264 mg/kg
Inhalation (dusts and mists)	920.8 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
FISH Hybridization Buffer					
Formamide	Eyes - Severe irritant	Rabbit	-	100 milligrams	-
Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitiser

Conclusion/Summary : Not available.

Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

SECTION 11: Toxicological information

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure	:	FISH Hybridization Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation.
		FISH Mounting Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Inhalation	:	FISH Hybridization Buffer	No known significant effects or critical hazards.
		FISH Mounting Buffer	No known significant effects or critical hazards.
Ingestion	:	FISH Hybridization Buffer	No known significant effects or critical hazards.
		FISH Mounting Buffer	No known significant effects or critical hazards.
Skin contact	:	FISH Hybridization Buffer	No known significant effects or critical hazards.
		FISH Mounting Buffer	No known significant effects or critical hazards.
Eye contact	:	FISH Hybridization Buffer	No known significant effects or critical hazards.
		FISH Mounting Buffer	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	:	FISH Hybridization Buffer	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
		FISH Mounting Buffer	No specific data.
Ingestion	:	FISH Hybridization Buffer	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
		FISH Mounting Buffer	No specific data.
Skin contact	:	FISH Hybridization Buffer	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
		FISH Mounting Buffer	No specific data.
Eye contact	:	FISH Hybridization Buffer	No specific data.
		FISH Mounting Buffer	No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.

Long term exposure

Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.

Potential chronic health effects

General	:	FISH Hybridization Buffer	No known significant effects or critical hazards.
		FISH Mounting Buffer	No known significant effects or critical hazards.
Carcinogenicity	:	FISH Hybridization Buffer	No known significant effects or critical hazards.
		FISH Mounting Buffer	No known significant effects or critical hazards.
Mutagenicity	:	FISH Hybridization Buffer	No known significant effects or critical hazards.
		FISH Mounting Buffer	No known significant effects or critical hazards.
Teratogenicity	:	FISH Hybridization Buffer	May damage the unborn child.
		FISH Mounting Buffer	No known significant effects or critical hazards.

SECTION 11: Toxicological information

Developmental effects : FISH Hybridization Buffer: No known significant effects or critical hazards.
FISH Mounting Buffer: No known significant effects or critical hazards.

Fertility effects : FISH Hybridization Buffer: No known significant effects or critical hazards.
FISH Mounting Buffer: No known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
FISH Hybridization Buffer			
Sodium chloride	Acute EC50 2430000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 28.85 mg/dm3 Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 1661 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic LC10 781 mg/l Fresh water	Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	3 weeks
	Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 0.314 g/L Fresh water	Daphnia - Daphnia pulex	21 days
	Chronic NOEC 100 mg/l Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
FISH Hybridization Buffer			
Formamide	-0.82	-	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects

: No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

SECTION 13: Disposal considerations

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

Regulatory information

ADR/RID / IMDG / IATA : Not regulated.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
FISH Hybridization Buffer Formamide	Toxic to reproduction	Candidate	ED/87/2012	6/18/2012

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : FISH Hybridization Buffer — Restricted to professional users.
FISH Mounting Buffer — Not applicable.

Other EU regulations

Europe inventory : All components are listed or exempted.

Product/ingredient name	Carcinogenic effects	Mutagenic effects	Developmental effects	Fertility effects
FISH Hybridization Buffer formamide	-	-	Repr. 1B, H360D (Unborn child)	-

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

SECTION 15: Regulatory information

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

International lists

National inventory

Australia	:	Not determined.
Canada	:	At least one component is not listed in DSL but all such components are listed in NDSL.
China	:	All components are listed or exempted.
Japan	:	**Japan inventory (ENCS)**: Not determined. **Japan inventory (ISHL)**: Not determined.
Malaysia	:	Not determined.
New Zealand	:	All components are listed or exempted.
Philippines	:	Not determined.
Republic of Korea	:	All components are listed or exempted.
Taiwan	:	All components are listed or exempted.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
FISH Hybridization Buffer Repr. 1B, H360D (Unborn child)	Calculation method

Full text of abbreviated H statements : **FISH Hybridization Buffer**

H319	Causes serious eye irritation.
H360D (Unborn child)	May damage the unborn child.

Full text of classifications [CLP/GHS] : **FISH Hybridization Buffer**

Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Repr. 1B, H360D (Unborn child)	TOXIC TO REPRODUCTION (Unborn child) - Category 1B

Date of issue/ Date of revision : 29/02/2016

Date of previous issue : No previous validation.

Version : 1

SECTION 16: Other information

Notice to reader

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