



MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING	
1.1. Product identifier	<ul style="list-style-type: none"> • Product form: Mixture • Product Name: Probe, FISH Probe, Fluorescent-Labeled Probe • Product code <ul style="list-style-type: none"> ○ FISH Probe Kits (CT-PAC***) ○ Locus Specific Probes (CT-LSP***, CT-CCP***, CT-STP***) <p style="text-align: center;">(***) is the Catalog Number</p>
1.2. Relevant identified uses of the substance or mixture and uses advised against	<ul style="list-style-type: none"> • Main use category: Intended for professional use only • Use of the substance/mixture: Laboratory chemical • Uses advised against: No additional information available.
1.3. Details of the supplier of the safety data sheet	<p>CytoTest Inc. 9430 Key West Avenue, Suite 210 Rockville, MD 20850, USA Tel. +1-202-688-1188; Fax: +1-301-296-6950 www.cytotest.com</p>
1.4. Emergency telephone number	USA: +1-800-222-1222

2. HAZARD(S) IDENTIFICATION	
2.1. Classification of the substance or mixture	Hazardous in the case of eye contact (irritant, inflammation, redness, itching), skin contact (irritant, permeator) or ingestion. Ingestion of large amounts may cause diarrhea, nausea, and vomiting.
2.2. Label elements	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>GHS07</p> </div> <div style="text-align: center;">  <p>GHS08</p> </div> </div>

2.3. Other hazards	H360D: May damage the unborn child. H302: Harmful if swallowed. H311: Toxic in contact with skin. H315: Causes skin irritation. H319: Causes serious eye irritation. H335: May cause respiratory irritation.
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3. COMPOSITION / INFORMATION ON INGREDIENTS				
3.1. Substances	<ul style="list-style-type: none"> • Deionized formamide: HCONH₂ : CAS 75-12-7 • Dextran sulfate sodium salt: Na₃C₆H₅O₇ : CAS 9011-18-1 • Saline sodium citrate buffer: CAS 6132-04-3 			
3.2. Mixtures	Name	Identifier	%	Classification according to regulation (EC) No 1272/2008 [CLP]
		1. Cas.No. 2. EC No. 3. Index No. 4. REACH No.		
	Water	1. 7732-18-5* 2. 231-791-2 3. Not Available 4. Not Available	20-50	Not Classified
	Deionized formamide HCONH ₂	1. 75-12-7 2. 200-842-0 3. 616-052-00-8 4. 01-2119496064-35-XXX, 01-2119841903-36-XXX, 01-2119856136-36-XXX	<100	Repr. 1B, H360D
Dextran sulfate	1. 9063-02-9 2. Not Available 3. Not Available 4. Not Available	<15	Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315	

	Sodium chloride	<ol style="list-style-type: none"> 1. 7647-14-5 2. 231-598-3 3. Not Available 4. 01-2119485491-33-X XXX 	<15	Not Classified
	Saline sodium citrate buffer	<ol style="list-style-type: none"> 1. 6132-04-3 2. 200-675-3 3. Not Available 4. 01-2119457027-40-X XXX 	<1	Not Classified

4. FIRST AID MEASURES	
4.1. Description of first aid measures	
Skin or Eye	Check for and remove contact lenses, move victim to eyewash and immediately flush affected area with running water for 20 minutes. Seek medical attention immediately if necessary.
Inhalation or Ingestion	Move victim to well-ventilated area. If not breathing, begin artificial respiration. Seek medical attention immediately if necessary.
4.2. Most important symptoms and effects, both acute and delayed	
Description of first aid measures	Symptoms/injuries after skin contact: Irritation.
	Symptoms/injuries after eye contact: Eye irritation.
4.3. Indication of any immediate medical attention and special treatment needed	
	Treat symptomatically.

5. FIREFIGHTING MEASURES	
5.1. Extinguishing media	<ul style="list-style-type: none"> • Water spray, • Carbon dioxide, • Dry chemical powder • Foam

5.2. Special hazards arising from the substance or mixture	<ul style="list-style-type: none"> • Flash Point / Explosion Information: 154°C (Open cup)
5.3. Advice for firefighters	<ul style="list-style-type: none"> • Wear standard firefighter protective gears. • May emit fumes under fire conditions. • Avoid inhalation and contact with skin or eyes. • National fire protection association rating <ul style="list-style-type: none"> ○ Health Hazard: Non-toxic (Hazard level 1) ○ Flammability Hazard: Non-flammable (Hazard level 1) ○ Reactivity Hazard: Normally stable (Hazard level 0) ○ Special Hazard: None Identified

6. ACCIDENTAL RELEASE MEASURES	
6.1. Personal precautions, protective equipment and emergency procedures	
6.1.1. For non-emergency personnel	
Emergency procedures	Only qualified personnel equipped with suitable protective equipment may intervene.
6.1.2. For emergency responders	
Protective equipment	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
6.2. Environmental precautions	
Avoid release to the environment. Notify authorities if product enters sewers or public waters.	
6.3. Methods and materials for containment and cleaning up	
Methods for cleaning up:	Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information:	Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	
For further information refer to section 13.	

7. HANDLING AND STORAGE	
7.1. Precautions for safe handling	<p>- Provide proper ventilation of the workstation. Obtain special instructions before use. Do not handle until safety precautions have been studied and understood. Wear personal protective equipment. Avoid contact skin and eye contact.</p> <p>- Separate working clothes from other clothes. Launder separately. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.</p>
7.2. Conditions for safe storage, including any incompatibilities	Store at -20°C or below, and in the dark.
7.3. Specific end use(s)	See section 1.2. above.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION																															
8.1. Control parameters	<p>EMERGENCY LIMITS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Ingredient</th> <th style="text-align: left;">Material name</th> <th style="text-align: left;">TEEL-1</th> <th style="text-align: left;">TEEL-2</th> <th style="text-align: left;">TEEL-3</th> </tr> </thead> <tbody> <tr> <td>formamide</td> <td>Formamide</td> <td>13 ppm</td> <td>13 ppm</td> <td>600 ppm</td> </tr> <tr> <td>sodium chloride</td> <td>Chloride; (Chloride(1-); Chloride ions)</td> <td>1 ppm</td> <td>2.52. ppm</td> <td>30 ppm</td> </tr> <tr> <td>sodium chloride</td> <td>Sodium chloride</td> <td>11 mg/m3</td> <td>120 mg/m3</td> <td>1100 mg/m3</td> </tr> <tr> <td>sodium citrate dehydrate</td> <td>Citric acid, trisodium salt, dihydrate</td> <td>9.3 mg/m3</td> <td>100 mg/m3</td> <td>610 mg/m3</td> </tr> <tr> <td>sodium citrate dihydrate</td> <td>Trisodium citrate</td> <td>9.3 mg/m3</td> <td>100 mg/m3</td> <td>610 mg/m3</td> </tr> </tbody> </table>	Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3	formamide	Formamide	13 ppm	13 ppm	600 ppm	sodium chloride	Chloride; (Chloride(1-); Chloride ions)	1 ppm	2.52. ppm	30 ppm	sodium chloride	Sodium chloride	11 mg/m3	120 mg/m3	1100 mg/m3	sodium citrate dehydrate	Citric acid, trisodium salt, dihydrate	9.3 mg/m3	100 mg/m3	610 mg/m3	sodium citrate dihydrate	Trisodium citrate	9.3 mg/m3	100 mg/m3	610 mg/m3
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8.2. Exposure controls	Precautionary Measure during use: Standard laboratory protection gear such as gloves, lab coats and eye goggles should be used.																														

9. PHYSICAL AND CHEMICAL PROPERTIES	
9.1. Information on basic physical and chemical properties	<ul style="list-style-type: none"> • Appearance: Clear and colorless liquid • Flammability: Flammable • Autoflammability: N/A • Oxidizing Properties: N/A • Water Solubility: Soluble
9.2. Other information	No additional information available.

10. STABILITY AND REACTIVITY	
10.1. Reactivity	Non-reactive under normal conditions.
10.2. Chemical stability	Stable when stored appropriately.
10.3. Possibility of hazardous reactions	No known hazardous reactions when stored and used appropriately.
10.4. Conditions to avoid	Avoid light and heat
10.5. Incompatible materials	No information available.
10.6. Hazardous decomposition products	No hazardous decomposition products under normal conditions.

11. TOXICOLOGICAL INFORMATION	
11.1. Information on toxicological effects	Very hazardous in the case of ingestion of large amounts. Hazardous in the case of eye contact (irritant, permeator), or inhalation (respiratory pathway irritant). Slightly hazardous in the case of skin contact (irritant).

12. ECOLOGICAL INFORMATION	
12.1. Toxicity	Ecology – general: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
12.2. Persistence and degradability	Formamide (75-12-7): Inherently biodegradable and low persistence in water or soil, photodegradable in air. Dextran sulfate, sodium salt (9011-18-1): No information available. Sodium chloride (7647-14-5): Not applicable.
12.3. Bioaccumulative potential	Not applicable.

12.4. Mobility in soil	Formamide (75-12-7): Surface tension 0.058 n/M Dextran sulfate, sodium salt (9011-18-1): No information available. Sodium chloride (7647-14-5): Not applicable.
12.5. Results of PBT and vPvB assessment	Formamide (75-12-7): Substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII and does not meet the vPvB criteria of REACH regulation, annex XIII. Dextran sulfate, sodium salt (9011-18-1): No information available. Sodium chloride (7647-14-5): Not applicable.
12.6. Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods	When disposing of unused contents, the preferred method is through handling through a chemical disposal company, licensed reclaimer.
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14. TRANSPORT INFORMATION

14.1. UN number	This product and its ingredients are not subject to IATA regulations.
14.2. UN proper shipping name	Not applicable.
14.3. Transport hazard class(es)	Not applicable.
14.4. Packing group	Not applicable.
14.5. Environmental hazards	Not applicable.
14.6. Special precautions for user	Not applicable.
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.

15. REGULATORY INFORMATION	
<p>15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture</p>	<ul style="list-style-type: none"> • Restriction on Use: This product is for laboratory use only. • Training Provision: This product should be handled only by technically qualified individuals trained in good laboratory practices. <p>EUROPEAN UNION – relevant regulatory lists:</p> <p>FORMAMIDE(75-12-7) :</p> <p>EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</p> <p>EU REACH Regulation (EC) No 1907/2006 - Annex XVII (Appendix 6) Toxic to reproduction: category 1B (Table 3.1)/category 2 (Table 3.2)</p> <p>EU REACH Regulation (EC) No 1907/2006 - Proposals to identify Substances of Very High Concern: Annex XV reports for commenting by Interested Parties</p> <p>Europe AeroSpace and Defence Industries Association of Europe (ASD) REACH Implementation Working Group Priority Declarable Substances List (PDSL)</p> <p>Europe European Chemicals Agency (ECHA) Candidate List of Substances of Very High Concern for Authorisation</p> <p>European Customs Inventory of Chemical Substances ECICS (English)</p> <p>European Trade Union Confederation (ETUC) Priority List for REACH Authorisation</p> <p>European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)</p> <p>European Union (EU) Annex I to Directive 67/548/EEC on Classification and Labelling of Dangerous Substances - updated by ATP: 31</p> <p>European Union (EU) Annex I to Directive 67/548/EEC on Classification and Labelling of Dangerous Substances (updated by ATP: 31) - Reprotoxic Substances</p> <p>European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI</p> <p>Netherlands Non-exhaustive list of reproductive toxins which additional registration requirement applicable under Article 4.2a, second paragraph of the Working Conditions Decree (Dutch).</p> <p>Dextran sulfate, sodium salt (9011-18-1): Not applicable.</p> <p>Sodium chloride (7647-14-5): Not applicable.</p>
<p>15.2. Chemical safety assessment</p>	<p>Chemical safety assessment has not been carried out.</p>

16. OTHER INFORMATION

User Note:

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : 67/548/EEC, 1999/45/EC, 98/24/EC, 92/85/EC, 94/33/EC, 91/689/EEC, 1999/13/EC, Commission Regulation (EU) 2015/830, Regulation (EC) No 1272/2008 and their amendments as well as the following British legislation: - The Control of Substances Hazardous to Health Regulations (COSHH) 2002 - COSHH Essentials - The Management of Health and Safety at Work Regulations 1999.

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