



Material Safety Data Sheet

System Fluid Preservative

1. Product and company identification

Product name	: System Fluid Preservative
Used in	: APTIMA
Material uses	: Various.
Supplier/Manufacturer	: Gen-Probe Incorporated 10210 Genetic Center Drive San Diego, CA 92121-4362
MSDS #	: 0047
In case of emergency	: CHEMTREC, U.S. : 1-800-424-9300 International: +1-703-527-3887

2. Hazards identification

Emergency overview

Color	: Colorless to light yellow.
Physical state	: Liquid. [Clear.]
Odor	: Chlorine.
Signal word	: DANGER!
Hazard statements	: CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.
Precautions	: Do not breathe vapor or mist. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential acute health effects

Inhalation	: Corrosive to the respiratory system.
Ingestion	: May cause burns to mouth, throat and stomach.
Skin	: May be harmful if absorbed through skin. Moderately irritating to the skin.
Eyes	: Corrosive to eyes. Causes burns.

Potential chronic health effects

Chronic effects	: Contains material that may cause target organ damage, based on animal data.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.
Target organs	: Contains material which may cause damage to the following organs: upper respiratory tract, skin, eyes.

Over-exposure signs/symptoms

Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing
Ingestion	: Adverse symptoms may include the following: stomach pains
Skin	: Adverse symptoms may include the following: pain or irritation redness blistering may occur

2 . Hazards identification

Eyes : Adverse symptoms may include the following:
pain
watering
redness

Medical conditions aggravated by over-exposure : None known.

See toxicological information (section 11)

3 . Composition/information on ingredients

United States

Name	CAS number	%
Sodium Hypochlorite	7681-52-9	1 - 5

Canada

Name	CAS number	%
Sodium Hypochlorite	7681-52-9	1 - 5

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.

Hazardous materials listed are the same in each part number in " Used In " section, however due to differing non-hazardous components, the use of these products are not interchangeable. See package insert for product use.

4 . First aid measures

- Eye contact** : Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 20 minutes while removing contaminated clothing and shoes. Get medical attention immediately.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Call medical doctor or poison control center immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Protection of first-aiders** : 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.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product : No specific fire or explosion hazard.

Extinguishing media

Suitable : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

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 : Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental precautions : Hazardous to aquatic environment. May cause long-term adverse effects in the aquatic environment. Prevent leaking substances from running into the aquatic environment or the sewage system.

Methods for cleaning up

Small spill : Stop leak if without risk. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and storage

Handling : Put on appropriate personal protective equipment (see section 8). 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. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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.

Storage : 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 unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

United States

Ingredient	Exposure limits
Sodium hypochlorite	AIHA WEEL (United States, 1/2009). STEL: 2 mg/m ³ 15 minute(s).

Canada

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			Notations
Ingredient	List name	ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	
Sodium hypochlorite	US AIHA 1/2009	-	-	-	-	2	-	-	-	-	

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : 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.

Engineering measures : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits.

8. Exposure controls/personal protection

- Hygiene measures** : Ensure that eyewash stations and safety showers are close to the workstation location. 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.
- Respiratory** : 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. Recommended: Wear an appropriate NIOSH approved respirator if concentration levels exceed the safe exposure limits.
- Hands** : Compatible chemical resistant gloves.
- Eyes** : Safety eyewear should be used when there is a likelihood of exposure. Recommended: Chemical splash goggles or face shield.
- Skin** : 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. Recommended: Rubber apron and/on long sleeves.
- 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.

9. Physical and chemical properties

- Physical state** : Liquid. [Clear.]
- Color** : Colorless to light yellow.
- Odor** : Chlorine.
- pH** : >8
- Specific gravity** : 1 g/cm³
- Solubility** : Miscible in water.

10. Stability and reactivity

- Chemical stability** : The product is stable.
- Conditions to avoid** : No specific data.
- Materials to avoid** : Reactive or incompatible with the following materials: oxidizing materials and reducing materials.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Hazardous polymerization** : Will not occur.

11. Toxicological information

Acute toxicity : No specific data.

Chronic toxicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Sodium hypochlorite	-	3	-	-	-	-

12. Ecological information

Environmental effects : Very toxic to aquatic organisms.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Sodium hypochlorite	Acute LC50 56400 to 77400 ug/L Marine water Acute LC50 32 to 36 ug/L Fresh water Acute LC50 32 ug/L Marine water	Crustaceans - Palaemonetes pugio Daphnia - Daphnia magna - <24 hours Fish - Oncorhynchus kisutch - Juvenile (Fledgling, Hatchling, Weanling)	48 hours 48 hours 96 hours

Other adverse effects : No known significant effects or critical hazards.







13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Empty containers or liners may retain some product residues. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.

Disposal should be in accordance with applicable regional, national and local laws and 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

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN1791	HYPOCHLORITE SOLUTIONS	8	III		-
TDG Classification	UN1791	HYPOCHLORITE SOLUTIONS	8	III		-
IMDG Class	UN1791	HYPOCHLORITE SOLUTIONS. Marine pollutant (Sodium hypochlorite)	8	III	 	-
IATA-DGR Class	UN1791	HYPOCHLORITE SOLUTIONS	8	III	 	-

PG* : Packing group

Exemption to the above classification may apply.

AERG : 154

15 . Regulatory information

United States

HCS Classification : Corrosive material

U.S. Federal regulations : **United States inventory (TSCA 8b)**: All components are listed or exempted.
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: Sodium Hypochlorite
SARA 311/312 MSDS distribution - chemical inventory - hazard identification:
Sodium Hypochlorite: Immediate (acute) health hazard
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: Sodium Hypochlorite
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.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

State regulations : **Connecticut Carcinogen Reporting**: None of the components are listed.
Connecticut Hazardous Material Survey: None of the components are listed.
Florida substances: None of the components are listed.
Illinois Chemical Safety Act: None of the components are listed.
Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed.
Louisiana Reporting: None of the components are listed.
Louisiana Spill: None of the components are listed.
Massachusetts Spill: None of the components are listed.
Massachusetts Substances: The following components are listed: Sodium hypochlorite solution Cl active
Michigan Critical Material: None of the components are listed.
Minnesota Hazardous Substances: None of the components are listed.
New Jersey Hazardous Substances: The following components are listed: Sodium hypochlorite solution Cl active
New Jersey Spill: None of the components are listed.
New Jersey Toxic Catastrophe Prevention Act: None of the components are listed.
New York Acutely Hazardous Substances: The following components are listed: Sodium hypochlorite solution Cl active
New York Toxic Chemical Release Reporting: None of the components are listed.
Pennsylvania RTK Hazardous Substances: The following components are listed: Sodium hypochlorite solution Cl active
Rhode Island Hazardous Substances: None of the components are listed.

California Prop. 65

California prop. 65: No products were found.

Canada

WHMIS (Canada) : Class E: Corrosive material

15 . Regulatory information

- Canadian lists** : CEPA Toxic substances: None of the components are listed.
 Canadian ARET: None of the components are listed.
 Canadian NPRI: None of the components are listed.
 Alberta Designated Substances: None of the components are listed.
 Ontario Designated Substances: None of the components are listed.
 Quebec Designated Substances: None of the components are listed.
- Canada inventory** : Canada inventory: All components listed.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations

- International lists** : Australia inventory (AICS): Not determined.
 China inventory (IECSC): Not determined.
 Korea inventory (KECI): Not determined.
 Philippines inventory (PICCS): Not determined.
 Japan inventory (ENCS): Not determined.

16 . Other information

United States

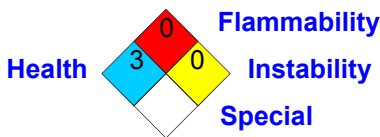
- Label requirements** : CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS.
Hazardous Material Information System (U.S.A.) :

Health	3
Flammability	0
Physical hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

- National Fire Protection Association (U.S.A.)** :



Canada

- WHMIS (Canada)** : 

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16 . Other information

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.