SAFETY DATA SHEET

Conforms to regulation (EC) no. EU 453/2010

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name: ProtoGel Sample Prep Kit - Reagent B **Product Number:** EC-884B

1.2 Relevant Identified Uses of the Substance/Mixture and Uses Advised Against

Investigational research by professional users

1.3 Details of the Supplier of the Safety Data Sheet

Manufacturer	Agent
National Diagnostics	AGTC Bioproducts
305 Patton Drive	Unit 4 Fleet Business Park
Atlanta, GA 30036	Itlings Lane, Hessle
(404) 699-2121	East Riding of Yorkshire HU139LX
(800) 526-3867	44(0) 1482 646020
info@nationaldiagnostics.com	office@agtcbioproducts.com

1.4 Emergency Telephone Number

Chemtrec
1-800 424-9300 (U.S. & Canada)
01-703-527-3887 (outside U.S. & Canada)

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

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

H315 - Skin Corrosion/Irritation (Category 2)
H319 - Serious Eye Damage/Eye Irritation (Category 2A)
H400 - Acute Hazards to the Aquatic Environment (Category 1)

2.2 Label Elements

GHS LABEL ELEMENTS AND CLASSIFICATION

GHS Label Elements

WARNING
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H400 - Very toxic to aquatic life.
P273 - Avoid release to the environment.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

2.3 Other Hazards

None found.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Chemical Names/Description

Solution of Proprietary Salt

Component List

Component	% Comp.	CAS #	EC #	1278/2008 Classification
Proprietary Salt	15-20%			H315, H319, H400

SECTION 4 - FIRST AID MEASURES

4.1 Description of First Aid Measures

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion
Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician.

Skin
Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes
Immediately flush eyes with plenty of water for at least fifteen minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed
Inhalation
Coughing, choking, with variable symptoms of headache, dizziness, and weakness.

Ingestion
Symptoms may include nausea, vomiting and diarrhea.

Skin
Symptoms include redness, itching, and pain.

Eyes
Redness and pain.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed
Unknown/not applicable

SECTION 5 - FIRE FIGHTING MEASURES
5.1 Extinguishing media
Not applicable.

5.2 Special Hazards Arising from the Substance/Mixture
Hazardous Combustion Products
Not applicable.

Hazardous Decomposition Products
When heated to decomposition it emits toxic fumes.

Hazardous Polymeriation
Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

5.3 Advice for Firefighters
Not applicable.

5.4 Further Information
No data available.

SECTION 6 - ACCIDENTAL RELEASE MEASURES
6.1 Personal Precautions
Wear appropriate protective equipment as specified in Section 8.

6.2 Environmental Precautions
Prevent discharge into the environment. Dike spills and stop leakage where practical. Do not allow material to enter drains.

6.3 Methods and Materials for Containment and Cleaning Up
Contain and clean up spill immediately, prevent from entering floor drains. Contain liquids using absorbents. Shovel all spill materials into disposal drum. Scrub spill area with detergent, flush with copious amounts of water.

6.4 References to Other Sections
For disposal information, see Section 13. For Protective clothing and equipment, see Section 8.

SECTION 7 - HANDLING AND STORAGE
7.1 Precautions for Safe Handling
Avoid contact and inhalation. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.

7.2 Conditions for Safe Storage (including any incompatibles)

Keep in a tightly closed container, stored in a cooled, dry, ventilated area.

Incompatibles

Alkali metals, chloral hydrate, acids tartaric acid, potassium chlorate, metallic salts, iodine. Reacts violently with bromide trifluoride, perchloric acid, and oxidants.

7.3 Specific End Uses

Investigational research by professional users

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PRECAUTIONS

8.1 Control Parameters

ACGIH Threshold Limit Value (TLV): none listed
OSHA Permissable Exposure Limit (PEL): none listed

8.2 Exposure Controls

Engineering Controls

A system of local and/or general exhaust is recommended to keep employee exposures low. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source.

Respiratory Protection

For conditions of use where exposure to the dust or mist is apparent, a full-face dust/mist respirator may be worn. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator.

Eye Protection

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Skin Protection

Wear protective gloves and clean body covering clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical & Chemical Properties

a. Appearance	Aqueous Solution	**b. Odor**	None
c. Odor Threshold	N.A.	**d. pH**	Not available.
e. Melting/Freezing Point (^{o}C)	0	**f. Boiling point (^{o}C)**	100
g. Flash Point (^{o}C)	N.A.	**h. Evaporation Rate**	Not available.
i. Flammability	N.A.	**j. Upper/Lower Flammability or Explosive Limits**	N.A.
k. Vapor Pressure	Not available.	**l. Vapor Density (Air = 1)**	Not available.
m. Relative Density	Not available.	**n. Water Solubility**	Soluble.
o. Partition Coefficient n-octanol/water	Mixture	**p. Autoignition Temperature (^{o}C)**	N.A.
q. Decomposition Temperature (^{o}C)	N.A.	**r. Viscosity**	No data available.
s. Explosive Properties	N.A.	**t. Oxidizing Properties**	Not an oxidizer

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

May act as a reducing agent. Reacts with strong acids.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage.

10.3 Possibility of Hazardous Reactions

Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

10.4 Conditions to Avoid

Light and incompatibles.

10.5 Incompatible Materials

Alkali metals, chloral hydrate, acids tartaric acid, potassium chlorate, metallic salts, iodine. Reacts violently with bromide trifluoride, perchloric acid, and oxidants.

10.6 Hazardous Decomposition Products

When heated to decomposition it emits toxic fumes.

SECTION 11 - TOXICOLOGICAL INFORMATION

Product LD50 Values

Oral Rat LD50 (mg/kg)

28933

Dermal Rabbit LD50 (mg/kg)

No Data

Component Cancer List Status

	NTP Carcinogen		
	Known	Anticipated	IARC Category
Proprietary Salt	No	No	None

Potential Health Effects

Inhalation

Inhalation of dust from evaporated solution may lung irritation. May cause lung edema.

Ingestion

Causes irritation to the gastrointestinal tract.

Skin

Causes irritation to skin.

Eyes

Causes irritation.

Carcinogenicity

Not listed as a known or anticipated carcinogen by NTP or IARC.

Mutagenicity

No information found.

Reproductive Toxicity

Large repeated doses for treatment of asthma in pregnancy has resulted in fetal death, severe goiter and cretanoid appearance of the newborn.

Teratogenic Effects

No information found.

Routes of Entry

No information found.

Target Organ Statement

No information found.

SECTION 12 - ECOLOGICAL INFOMATION

12.1 Toxicity

	Vertebrates	Invertebrates	Algae	Microorganisms
Aquatic Toxcitiy (ppm unless otherwise noted)	LC50 (96hours, trout): 2800	LC50 (48hrs, Daphnia):0.17mg/L	LOEC: 66mg/L	LOEC 5850 mg/L

	Birds	Arthropods	Plants	Microorganisms
Terrestial Environment Toxicity (ppm unless otherwise noted)	No data	LC50 (24 hrs) 8900ug/g	No data	No data

12.2 Persistence and Degradability

No data

12.3 Bioaccumulative Potential

No data

12.4 Mobility in Soil

No data

12.5 Results of PBT and vPvB Assessment

Not PBT or vPvB

12.6 Other Adverse Effects

None

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Offer surplus or non-recyclable product to licensed disposal company. Disposal is subject to user compliance with applicable law and product characteristics at time of disposal. Dispose of packaging as product.

SECTION 14 - TRANSPORT INFORMATION

	ADR/RID	IATA	IMO	DOT
14.1 UN Number	3082	3082	3082	N.A.
14.2 Shipping Name	Environmentally hazardous	Environmentally hazardous	Environmentally hazardous	Not regulated.
14.3 Hazard Class	Substance, liquid, N.O.S.	Substance, liquid, N.O.S.	Substance, liquid, N.O.S.	N.A.
14.4 Packing Group	Class 9 PG III	Class 9 PG III	Class 9 PG III	N.A.
14.5 Environmental Hazards	N.A.	N.A.	Marine pollutant	N.A.
14.6 Special Precautions	N.A.	N.A.	N.A.	N.A.

SECTION 15 - REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance/Mixture

United States

TSCA Regulatory Statement

All intentional ingredients are listed on the TSCA Inventory.

SARA 311/312 Hazard Categories

Component	Fire	Pressure	Reactivity	Acute	Chronic
Proprietary Salt	No	No	No	No	No

Europe

EEC Regulatory

All intentional ingredients are listed on the European EINECS Inventory.

SECTION 16 - OTHER INFORMATION

Revisional Updates

5/29/2015 - Updated Sections 2.1 and 3.2
7/10/2013- Released Version 1.0

NFPA Codes

Health 1 **Flammability** 0 **Reactivity** 0

Dangers

Proprietary Salt

H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H400 - Very toxic to aquatic life.