SAFETY DATA SHEET

Section 1: Chemical Product and Company Identification

Product Name:	Seracult® Developer	Seracult® Plus Developer
Reorder No.:	379015	377015
Also component of reorder no.:	371001, 371002, 372003, 372004, 372005, 372007, 379010	374001, 374002, 375003, 375004, 375005, 375007, 377010
Purpose/Use:	For In Vitro Diagnostic use for Fecal Occult Blood Test. See product literature for details.	
Product Description:	Clear colorless liquid mixture with an alcohol odor in a 15mL bottle.	
Manufactured by/Contact information:	Propper Manufacturing Co. Inc. 36-04 Skillman Avenue Long Island City, NY 11101 (718) 392-6650 (Regular and Emergency Number)	

Section 2: Hazards Identification

Emergency Overview

WARNING: Avoid contact with eyes and skin. If contact occurs, flush affected area with water.
CAUTION: Flammable. Protect from light and heat. Keep tightly capped.

Appearance: Clear, Colorless Mixture **Physical State:** Liquid **Odor:** Alcohol

Potential Health Effects:	May cause eye, skin and respiratory tract irritation. Inhalation of ethanol may cause headaches, dizziness, drowsiness, and lassitude, loss of appetite, nausea, and vomiting. Inhalation of hydrogen peroxide may cause irritation or chemical burns to mucous membranes and the gastrointestinal tract. Serious health consequences may result from ingestion.

	Hazard Classification of Pure Ingredients			
Source of Hazard-	**US - OSHA**	**EU – 67/548/EEC***	**GHS EC NO 1272/2008 ***	**WHMIS***
Ethyl Alcohol:	Flammable Irritant	• F; • Xi • R11; • S7; S16; S36/37	Please See Table 1 Below	B2; D2B
Hydrogen Peroxide (stabilized, 35%):	Oxidizer Corrosive	• O; • C; • R8; R20/22; R35 • S17;S26;S28; S36/37;S45	Please See Table 1 Below	C; E

**Full text can be found under sections 16*

Section 2: Hazards Identification (Con't)

TABLE 1:
GHS
EC NO 1272/2008*

	Classification & Labeling of Pure Ingredients			
International Chemical Identification:	**Hazard Class and Category Code:**	**Pictogram/Signal Word Code:**	**Hazard Statement Codes:**	**Precautionary Statement Codes:**
Ethyl Alcohol:	Flam. Liq. 2	 Signal Word: **Danger!**	H225; *H335; H315 + H320*	P210; P233; P280; P501; P303 + P361 + P353 P337 + P313 P370 + P378 P403 + P235
Hydrogen Peroxide (stabilized, 35%):	Ox. Liq. 1 Acute Tox. Oral 4 Acute Tox. Inhal. 4 Skin Corr. 1A	 Signal word: **Danger!**	H271; H302; H314; H318; H332; H335	P210; P220; P221; P264; P270; P280; P283; P363; P501; P301 + P312 + P330 P301 + P330 + P331 P303 + P361 + P353 P304 + P340 + P310 P305 + P351 + P338 + P310 P306 + P360 P370 + P378 P371 + P380 + P375

**Full text can be found under sections 16*

Section 3: Composition and Information on Ingredients

Hazardous Ingredients Within The Mixture:*

Chemical Name:	**Approximate Concentration in Product (% by weight):**		Hazardous Criteria Met:	**IDENTIFIERS:**	
	Seracult® Developer	Seracult® *Plus* Developer			
Ethanol, SDA 40 (denatured alcohol): *(Ethyl Alcohol)*	75 %	84 %	OSHA 29 CFR 1910.1200	CAS#: EINECS (EC-No) #: EU Index #: PUBCHEM:	64-17-5 200-578-6 603-002-00-5 702
Hydrogen Peroxide (stabilized, 35%):	5 %	4 %	OSHA 29 CFR 1910.1200	CAS#: EINECS (EC-No) #: EU Index #: PUBCHEM:	7722-84-1 231-765-0 008-003-00-9 784

***Other components are proprietary and do not pose a cause for concern**

Section 4: First Aid Measures

Eye Contact:	Flush eyes immediately with cold water for 15 minutes or more with eyes open. Obtain medical attention.
Skin Contact:	Flush contact area with cold water. Wash affected area with soap and water, rinse thoroughly. Skin that has been bleached white will return to normal color within a few hours. If irritation persists or pain ensues, seek medical attention.
Inhalation:	Move victim into fresh air. If there is difficulty breathing or victim loses consciousness seek medical attention.
Ingestion:	If fully conscious, and not convulsing, victim should drink 1-2 glasses of water to dilute the solution. Contact a physician or poison control center immediately. Do not induce vomiting unless instructed to do

	so by a certified medical authority.

Section 5: Fire Fighting Measures

Flammability of the Product:	Flammable Liquid – The liquid in the developer will ignite in direct flame.
Extinguishing Media:	Use water, carbon dioxide, dry chemicals or universal-type foams applied per manufacturer's recommendation.
Special Fire Fighting Procedures :	Wear protective clothing. Use self-contained breathing apparatus (NIOSH Certified). Do not use oxidizable sorbents.
Special Fire and Explosion Hazards:	Oxygen evolution from the composition of hydrogen peroxide will support combustion and may serve to intensify fire. Excessive heat may cause container pressurization, enhancing risk of explosion and fire.

Section 6: Accidental Release Measures

Spill, Leak, and Disposal Procedures:	Use appropriate personal protective clothing. Dilute leaks and spills with large amounts of cold water. Discharge diluted waste in accordance with local, state, and federal environmental regulations.

Section 7: Handling and Storage

Handling Precautions:	Use in well ventilated areas away from heat and sources of ignition. e.g., locations in close proximity to radiators, steam, or hot water pipes, open flames, sparking equipment and all other ignition sources. Avoid contact with skin or eyes. Replace bottle closure when developer is not being used. This will prevent the loss of alcohol vapors and reduce the risk of developer contamination.
Storage Conditions:	Avoid unnecessary exposure to sources of ultra violet light, e.g., direct sunlight, UV lamps and UV-emitting room lights. Store between 15º - 30ºC (59º - 86ºF) in a well-ventilated area. Do not refrigerate or freeze. Keep container sealed until ready for use.

Section 8: Exposure Control and Personal Protection

Exposure Limits:	**US OSHA-PEL:**	Hydrogen Peroxide:	1 ppm TWA (1.4 mg/m3 TWA)
		Ethanol:	1,000 ppm (1,900 mg/m3)
	ACGIH-TLV :	Hydrogen Peroxide:	1 ppm TWA
		Ethanol:	1,000 ppm (1,880 mg/m3)
	NIOSH-IDLH:	Hydrogen Peroxide:	75 ppm IDLH; 1ppm TWA (1.4 mg/m3 TWA)
		Ethanol:	3300ppm IDLH (10% LEL); 1,000 ppm TWA; (1,900 mg/m3 TWA)
Engineering Controls:	Use in ventilated area.		
Respiratory Protection:	In well-ventilated area under normal use, this product should not require respiratory protection.		
Eye Protection:	Safety glasses or chemical goggles should be worn to prevent eye contact.		
Skin Protection:	Gloves should be worn to prevent skin contact.		

Section 9: Physical and Chemical Properties

Physical State:	Liquid
Appearance:	Clear, colorless, water-like

Odor:	Characteristic alcohol scent
Odor Threshold:	Not applicable
Vapor Pressure:	Not available
pH:	Not available
Boiling Point:	81ºC (177.8ºF)
Freezing Point:	< -20ºC (-4ºF)
Melting Point:	Not available
Relative Density:	Not available
Flash Point:	The developer was not tested. It should be considered similar to ethanol SDA 40, 190 proof: CLOSED CUP: 16.1ºC (60.98ºF); OPEN CUP: 21.1ºC (69.98ºF).
Flammable Limits:	The developer was not tested. It should be considered similar to ethanol SDA 40, 190 proof: : LOWER LIMIT: 3.3% by volume; UPPER LIMIT: 19% by volume.
Specific Gravity:	0.86 at 20 º C
Vapor Pressure:	Similar to ethanol SDA 40 (~ 21 mmHg)
Evaporation Rate:	Similar to ethanol SDA 40 (~ 1.6…butyl acetate = 1)
% Volatiles:	~ 100 (by volume)
Solubility in Water:	Completely miscible

Section 10: Stability and Reactivity

Chemical Stability:	This product is stable under standard conditions of temperature and pressure. Please adhere to recommended storage conditions for best results and greatest stability.
Incompatibility:	Concentrated nitric and sulfuric acids, strong oxidizing agents, alkali metals, ammonia, rust, dirt, dust and inert particulate solids in general, solutions with pH greater than 4, Iron, copper and a host of heavy metals, their salts and alloys. Some organic materials, reducing agents and strong oxidizing agents. Ultra violet light may induce photo decomposition.
Hazardous Polymerization:	Will not occur.
Hazardous Combustion and Decomposition Products:	Incomplete combustion may produce carbon monoxide (CO) and/or carbon dioxide (CO_2). Oxygen may be evolved resulting in a fire intensification hazard.

Section 11: Toxicological Information

Effects of Acute Exposure:

Primary routes of exposure are through the eyes, ingestion, inhalation and skin contact.
Eye: May cause eye damage in case of accidental contact.
Skin: May cause skin irritation and a mild burning sensation and/or bleaching or whitening of the skin may happen. Irritation and depletion of natural oils in the skin may follow prolonged contact.
Inhalation: May cause headaches, dizziness, drowsiness, lassitude, loss of appetite, inability to concentrate, decrease motor response, euphoria, nausea, vomiting, irritation or chemical burns to mucous membranes and the gastrointestinal tract. Further injury may result from a distention of the esophagus and/or stomach caused by sudden gas evolution after hydrogen peroxide decomposition.
Ingestion: The developer should not be ingested and maybe harmful if swallowed.

Toxicological Data:

	Ethyl Alcohol:	Hydrogen Peroxide:
Dermal LD_{50} (Albino Rats)	N/A	2000 mg/kg
Dermal LD_{50} (Rabbit)	N/A	4060 mg/kg
Oral LD_{50} (Albino Rats)	7060 mg/kg	801 mg/kg
Inhalation LC_{50} (Albino Rats)	124.7 mg/L – 4H	2 mg/L – 4H

Chronic Effects of Overexposure:

Carcinogenicity: The developer was not tested. The ethanol content is not a carcinogenic substance. Hydrogen peroxide, IARC concludes there is inadequate evidence for humans but limited evidence in experimental animals IARC 71:671 (1999). ACGIH list hydrogen peroxide as a 'confirmed animal carcinogen with unknown relevance to humans' (A3).
Mutagenicity: None identified.
Reproductive Toxicity: None identified.

Section 12: Ecological Information

Eco-toxicity:

This product is toxic to fish and all other water inhabitants.

Ethyl Alcohol:	
Fresh Water Algae:	No Information Available
Fresh Water Species:	LC_{50} *Oncorhynchus mykiss* (rainbow trout): 12.0-16.0 mL/L – 96h [static]; LC_{50} *Pimephales promelas* (fathead minnow): > 100mg/L – 96h [static]; LC_{50} *Pimephales promelas :* 13400-15100 mg/L – 96h [flow-through].
Microtox:	No Information Available
Water Flea:	EC_{50} *Daphnia Magna:* 10800 mg/L – 24h; EC_{50} *Daphnia Magna:* 9268-14221 mg/L – 48h; EC_{50} *Daphnia Magna:* 2 mg/L – 48h [static].

Hydrogen Peroxide:	
Fresh Water Algae:	EC_{50} *Chlorella vulgaris:* 2.5 mg/L- 72h.
Fresh Water Species:	LC_{50} *Oncorhynchus mykiss* (rainbow trout): 10.0-32.0 mL/L – 96h [static]; LC_{50} *Pimephales promelas* (fathead minnow): 16.4 mL/L – 96h; LC_{50} *Lepomis macrochirus* (Bluegill): 18-56 mg/L [static] -96h.
Microtox:	No Information Available.
Water Flea:	EC_{50} *Daphnia Magna:* 7.7 mg/L – 24h; EC_{50} *Daphnia Magna:* 18-32 mg/L – 48h [static].

Biodegradability: Hydrogen peroxide in water environment degrades to water and oxygen.

Section 13: Disposal Considerations

Waste Disposal: Dispose of waste and unused product in compliance with local, state, and federal environmental regulations. If unsure of waste requirements, contact a licensed professional waste disposal service to dispose of this material if questions arise.

Section 14: Transport Information

			International Shipping Information		
Shipping Information	**US: DOT**	**European (Land Transport): ADR/RID**	**Maritime Transport: IMO/IMDG**	**Air Transport: IATA-DGR/ ICAO-TI**	**Canadian: TDG**
UN/ID Number:	3316				
Proper Shipping Name:	Chemical Kit (contains ethanol solution)				
Hazard Class: (Subsidiary Class)	**Hazard Class 9-** Miscellaneous Dangerous Goods; **Subsidiary Class 3-** Flammable Liquid				
Packing Group:	PG II	PG II	PG II	PG II	PG II
Special Comment:	NA ERG Code: 171				

Section 15: Regulatory Information

US Federal and State Regulations:	SARA 313:	No ingredients listed.
	CERCLA RG's (40 CFR 302.4)	No ingredients listed.
	TSCA	No ingredients listed.
	California Proposition 65:	No ingredients listed.
	Massachusetts MSL:	Hydrogen Peroxide is listed. Ethyl Alcohol is listed.
	New Jersey Dept. of Health RTK List: (RTK Substance number)	Hydrogen Peroxide is listed (1015). Ethyl Alcohol is listed (0844).
	Pennsylvania RTK:	Hydrogen Peroxide is listed. Ethyl Alcohol is listed.
	Rhode Island Hazardous Substance List:	Ethyl Alcohol is listed.
Canada:	This product is exempt from WHMIS label and SDS requirements. Product Identification Number: 3316 Disclosure list ingredient: Hydrogen Peroxide & Ethyl Alcohol.	
EU Regulations:	Water Hazard Class (Germany): WGK 1, low water endangering.	

Section 16: Other Information

- Seracult® and Seracult® Plus slides and tape, included in kits with the developer products discussed above are deemed non-hazardous under the guidelines provided by the OSHA Hazard Communication standard 29 CFR 1910.1200.

Full text of EU – 67/548/EEC Risk and Safety Phrases under sections 2

Risk Phrase:

- *R8*- Contact with combustible material may cause fire.
- *R11*- Highly flammable liquid category 2.
- *R34*- Causes burns.
- *R20/22* - Harmful by inhalation and if swallowed

Safety Phrase:

- *S7*- Keep container tightly closed.
- *S16*- Keep away from sources of

Full text of GHS Hazard and Precautionary Statements under sections 2

Hazard statement(s)

- *H225:* Highly flammable liquid and vapor.
- *H271:* May cause fire or explosion; strong oxidizer.
- *H302:* Harmful if swallowed.
- *H314*: Causes severe skin burns and eye damage.
- *H318:* Causes serious eye damage.
- *H332*: Harmful if inhaled
- *H335*: May cause respiratory irritation.
- *H315 + H320:* Causes skin and eye irritation

Precautionary statement(s)

- *P210:* Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- *P220:* Keep/Store away from clothing/ combustible materials.

ignition – No smoking.
- *S17*- Keep away from combustible material.
- *S26*- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- *S28*- After contact with skin, wash immediately with plenty of water.
- *S45*- In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).
- *S36/37*- Wear suitable protective clothing and gloves.

Additional Phrases:

C- Corrosive	
F-Highly Flammable	
O- Oxidizing	
Xi – Irritant	

- *P221:* Take any precaution to avoid mixing with combustibles.
- *P233:* Keep container tightly closed.
- *P264*: Wash skin thoroughly after handling.
- *P270:* Do not eat, drink or smoke when using this product.
- *P273:* Avoid release to the environment.
- *P280:* Wear protective gloves/ protective clothing/ eye protection/ face protection.
- *P283:* Wear fire/ flame resistant/ retardant clothing.
- *P363*: Wash contaminated clothing before reuse.
- *P501*: Dispose of contents/ container to an approved waste disposal plant.
- *P301 + P312 + P330*: IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
- *P301 + P330 + P331*: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- *P303 + P361 + P353:* IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- *P304 + P340 + P310*: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
- *P305 + P351 + P338 + P310*: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
- *P306 + P360*: IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
- *P370 + P378:* In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
- *P371 + P380 + P375*: In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
- *P337 + P313:* If eye irritation persists: Get medical attention.
- *P403 + P235:* Store in a well-ventilated place. Keep cool.

- Full text of WHMIS under section 2

B2- Flammable liquid: Flashpoint of < 37.8°C (100°F)	
C- Oxidizing material	
D2B – Toxic material at >1%; Skin/Eye Irriation	
E- Corrosive material at >1%	

Acronyms and Abbreviations:
GHS- Globally Harmonized System
WHMIS- Workplace Hazardous Materials Information System
ACGIH- American Conference of Governmental Industrial Hygienists
TLV- Threshold Limit Value
NIOSH- National Institute for Occupational Safety and Health
IDLH- Immediately Dangerous to Life or Health
OSHA- Occupational Safety and Health Act
PEL- Permissible Exposure Limit
TWA- Time-Weighted Average
LD_{50} –Lethal Dose, 50%
LC_{50} -Lethal Concentration, 50%
EC_{50} -Effective Concentration, 50%
SARA- Superfund Amendments and Reauthorization Act
CERCLA- Comprehensive Response Compensation, and Liability Act
TSCA- Toxic Substance Control Act
RTK- Right to Know

- Please contact Propper Manufacturing for any further questions or concerns.

This SDS was last prepared on **18-Nov-2015**

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