



# Kit SDS Cover Sheet

Doc. ID: 64115-75: Rev. AJ  
Revised (year/month/day) 2011/11/23

## Product Information

<b>Product Name</b>	Hemocult®SENSA® Developer
<b>Part Number</b>	395035, 64000, 64115, 64130, 64151, 64152, 64200, 65940
<b>Series Name</b>	64000 Series
<b>Additional Product Information</b>	If Developer expiration date is May 2012 or earlier, use Part A of SDS. If Developer expiration date is June 2012 or later, use Part B of the SDS. The US OSHA and WHMIS hazard classification in Section 3 does not apply for EU.

## Components

### Description

Hemocult®SENSA®Developer (Part A)  
Hemocult®SENSA®Developer (Part B)

## Transport Information

<b>Shipping Information</b>	Shipping Name	Alcohols, n.o.s. (Ethanol, Isopropanol solution)
	UN/ID Number	1987
	Packing Group	II
<b>IATA</b>	Hazard Class	3 Flammable Liquids
	Subsidiary Risk	None
	Special Provisions	A3
	IATA ERG Code	3L
<b>IMDG</b>	Hazard Class	3 Flammable liquids
	Subsidiary Risk	None
	Special Provisions	274
	Marine Pollutant	No
<b>US DOT</b>	Hazard Class	3 Flammable liquid
	Subsidiary Risk	None
	Special Provisions	173.150
	NAERG Number	127
<b>European ADR</b>	ADR Classification	3 Flammable Liquids
	Classification Code	F1
	Subsidiary Risk	None
<b>Canadian TDG</b>	PIN	1987
	TDG Classification	3 Flammable Liquids
	Subsidiary Risk	None

<b>Transport Information (Continued)</b>	
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	Special Provisions	16
	NAERG Number	127



# SAFETY DATA SHEET

Doc. ID: B34658 AA  
Issued (year/month/day) 2013/05/22

## Section 1 Identification of the Substance/mixture and of the Company/undertaking

### 1.1 Product Identifier

**Product Name** Hemocult®SENSA® Developer  
**Part Number** 395035, 64115, 64130, 64151, 64152, 64200, 65940  
**Series Name** 64000 Series

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

**Product Use** For In Vitro Diagnostic Use. See product literature for details.

### 1.3 Details of supplier of the safety data sheet

	<b>Manufacturer</b>	<b>EC REP Address</b>
<b>e-mail address</b>	Beckman Coulter, Inc. 250 S. Kraemer Blvd Brea, CA 92821, U.S.A. Tel: 800-854-3633 SDSNT@beckman.com	Beckman Coulter Ireland Inc. Mervue Business Park Mervue, Galway, Ireland Tel: 353 91 774068

### 1.4 Emergency telephone number

**Telephone number (24H)** Chemtrec Emergency Tel No. U.S.A. 800-424-9300, International (001) 703-527-3887

#### **Distributor and Emergency Phone No.**

Refer to attached list, Document ID: [A86357](#), for local distributor and emergency phone numbers.

## Section 2 Hazards Identification

### 2.1 Classification of substance or mixture

**Product Description** Mixture  
Colorless; Clear; Liquid; Alcohol odor

**Classification according to EC Directives 1999/45/EC and 67/548/EEC**  
F;R11

**US OSHA** Hazardous

**WHMIS** Exempt

**Physical Hazards** Vapors of flammable ingredients are heavier than air and may travel to an ignition source, ignite and flash back.

**Potential Health Effects Summary** May cause eye, skin and respiratory tract irritation and central nervous system depression with headache, dizziness, nausea and unconsciousness.  
Harmful by inhalation, in contact with skin and if swallowed.

**Potential Environmental Effects** None identified

# SAFETY DATA SHEET

Doc. ID: B34658 AA  
Issued (year/month/day) 2013/05/22

## Section 2 Hazards Identification (Continued)

### 2.2 Label Elements

According to EC Directives (1999/45/EC and 67/548 EEC)

Highly flammable

F



### Risk and Safety Phrases

R11 Highly flammable.  
S16 Keep away from sources of ignition - No smoking.  
S7 Keep container tightly closed.

### 2.3 Other Hazard

None identified

See Section 11 Toxicological Information for more detailed health information.

## Section 3 Composition and Information on Ingredients

### 3.2 Mixture

Hazardous Ingredients:		Hazard Classification of Pure Ingredients				
Chemical Name	% by wt.	EU-67/548/EEC	EU 1272/2008 CLP/GHS	US OSHA	WHMIS	
Ethyl Alcohol CAS # 64-17-5 EINECS # 200-578-6 Index # 603-002-00-5	<85	F;R11	Flam. Liq. 2 H225	Flammable Irritant	B2; D2B	
Isopropyl Alcohol CAS # 67-63-0 EINECS # 200-661-7 Index # 603-117-00-0	<5	F;R11 Xi;R36-67	Eye Irrit. 2 Flam. Liq. 2 STOT SE 3 H225; H319; H336	Flammable Irritant	B2; D2B	
Ethyl Paraben CAS # 120-47-8 EINECS # 204-399-4 Index # Not available	< 5	No	Eye Irrit. 2 STOT SE 3 Skin Irrit. 2 H315; H319; H335	Irritant Sensitizer	D2B	
Hydrogen Peroxide CAS # 7722-84-1 EINECS # 231-765-0 Index # 008-003-00-9	< 2	O;R5-8 C;R35-20/22	Acute Tox. Inhal. 4 Acute Tox. Oral 4 Eye Dam. 1 Ox. Liq. 1 STOT SE 3 Skin Corr. 1A H271; H302; H314; H318; H332; H335	Oxidizer Corrosive	C; E	

See section 8 for available Occupational exposure limits

See Section 15 for additional regulatory information

See Section 16 for hazard class, hazard statements and risk phrase description

## Section 4 First Aid Measures

### 4.1 Description of first aid measures

#### Inhalation

If product is inhaled, move exposed individual to fresh air. If individual is not breathing, begin artificial respiration immediately and obtain medical attention.

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## Section 4 First Aid Measures (Continued)

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<b>Eye Contact</b>	If product enters eyes, wash eyes gently under running water for 15 minutes or longer, making sure that the eyelids are held open. If pain or irritation occur, obtain medical attention.
<b>Skin Contact</b>	In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If pain or irritation occur, obtain medical attention.
<b>Ingestion</b>	If ingested, wash mouth out with water. If irritation or discomfort occurs, seek medical attention.

### 4.2 Most important symptoms and effects, both acute and delayed

See Section 11 Toxicological Information for more detailed health information.

### 4.3 Indication of any immediate medical attention and special treatment needed

No specific medical attention or treatment required.

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## Section 5 Fire Fighting Measures

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**Flammable Properties** Flammable liquid and vapor.

**5.1 Extinguishing Media** Use extinguishing media suitable for surrounding fire.

### 5.2 Special hazards arising from the substance or mixture

#### Special Fire and Explosion Hazards

Vapors form explosive mixtures with air above flash point. Vapors are heavier than air; fire may flash from ignition source back along vapor trail.

#### Hazardous Combustion Products

Depending upon fire conditions, combustion products may range from irritants and asphyxiants to acutely toxic gases.

### 5.3 Advice for fire fighters

**Protective Equipment** Self-contained breathing apparatus is recommended for firefighters in all chemical fire situations.

**5.4 Additional information** None

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## Section 6 Accidental Release Measures

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### 6.1 Personal precaution, protective equipment and emergency procedures

**Personal Precautions** Use good laboratory procedures; avoid eye and skin contact.

**6.2 Environmental Precautions** Contain spill to prevent migration.

### 6.3 Methods and material for containment and cleaning up

**Spill and Leak Procedures** Absorb spilled material with an appropriate inert, non-flammable absorbent and dispose according to local regulations.

**6.4 Reference to other sections** Refer sections 8 and 13.

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## Section 7 Handling and Storage

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- 7.1 Precautions for safe handling** Use in well ventilated area away from heat or ignition sources.  
Use good laboratory procedures; avoid eye and skin contact.
- 7.2 Conditions for safe storage, including any incompatibilities**  
To maintain efficacy, store according to the instructions in the product labeling.  
Keep away from incompatible material (see Section 10).
- 7.3 Specific end uses** No data available.

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## Section 8 Exposure Controls and Personal Protection

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### 8.1 Control parameters

#### Exposure Limits

##### US OSHA

Ethyl Alcohol CAS # 64-17-5	1000 ppm TWA; 1900 mg/m <sup>3</sup> TWA
Isopropyl Alcohol CAS # 67-63-0	400 ppm TWA; 980 mg/m <sup>3</sup> TWA
Hydrogen Peroxide CAS # 7722-84-1	1 ppm TWA; 1.4 mg/m <sup>3</sup> TWA

##### ACGIH

Ethyl Alcohol CAS # 64-17-5	1000 ppm STEL
Isopropyl Alcohol CAS # 67-63-0	400 ppm STEL; 200 ppm TWA
Hydrogen Peroxide CAS # 7722-84-1	1 ppm TWA

##### DFG MAK

Ethyl Alcohol CAS # 64-17-5	1000 ppm Peak; 1920 mg/m <sup>3</sup> Peak; 500 ppm TWA MAK; 960 mg/m <sup>3</sup> TWA MAK
Isopropyl Alcohol CAS # 67-63-0	400 ppm Peak; 1000 mg/m <sup>3</sup> Peak; 200 ppm TWA MAK; 500 mg/m <sup>3</sup> TWA MAK
Hydrogen Peroxide CAS # 7722-84-1	0.5 ppm Peak; 0.71 mg/m <sup>3</sup> Peak; 0.5 ppm TWA MAK; 0.71 mg/m <sup>3</sup> TWA MAK

##### Ireland

Ethyl Alcohol CAS # 64-17-5	1000 ppm STEL
Isopropyl Alcohol CAS # 67-63-0	200 ppm TWA; 400 ppm STEL; Potential for cutaneous absorption
Hydrogen Peroxide CAS # 7722-84-1	1 ppm TWA; 1.5 mg/m <sup>3</sup> TWA; 2 ppm STEL; 3 mg/m <sup>3</sup> STEL

## Section 8 Exposure Controls and Personal Protection (Continued)

### NIOSH

Ethyl Alcohol CAS # 64-17-5	3300 ppm IDLH (10% LEL); 1000 ppm TWA; 1900 mg/m <sup>3</sup> TWA
Isopropyl Alcohol CAS # 67-63-0	2000 ppm IDLH (10% LEL); 500 ppm STEL; 1225 mg/m <sup>3</sup> STEL; 400 ppm TWA; 980 mg/m <sup>3</sup> TWA
Hydrogen Peroxide CAS # 7722-84-1	75 ppm IDLH; 1 ppm TWA; 1.4 mg/m <sup>3</sup> TWA

### Japan

None established

## 8.2 Exposure controls

### Engineering Controls

Use in well ventilated area.

### Eye Protection

Safety glasses or chemical goggles should be worn to prevent eye contact. Refer U.S. OSHA 29 CFR 1910.133, European Standard EN166 or appropriate government standards.

### Skin Protection

Impervious gloves, such as Nitrile or equivalent, should be worn to prevent skin contact. Refer U.S. OSHA 29 CFR 1910.138, European Standard EN374 or appropriate government standards.

### Respiratory Protection

Under normal conditions, the use of this product should not require respiratory protection. If overexposure should occur and ventilation is not adequate to maintain airborne concentrations at acceptable levels, the use of respiratory protection should be evaluated by a qualified professional.

## Section 9 Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

<b>Physical State</b>	Liquid	<b>Specific Gravity (Water=1.0)</b>	0.9 @20°C
<b>Color</b>	Colorless	<b>Solubility</b>	
<b>Transparency</b>	Clear	<b>Water</b>	Soluble
<b>Odor</b>	Alcohol odor	<b>Organic</b>	Not determined
<b>pH</b>	Not determined	<b>Coefficient of Water/Oil Distribution</b>	Not determined
<b>Freezing Point</b>	Not determined	<b>Autoignition Temp.</b>	Not determined
<b>Boiling Point</b>	Not determined	<b>Decomposition Temperature</b>	Not determined
<b>Flash Point</b>	15.5°C (59.9°F)	<b>Percent Volatiles</b>	Not determined
<b>Evaporation Rate</b>	Not determined	<b>Vapor Pressure</b>	Not determined
<b>Flammability (Solid, Gas)</b>	Not applicable	<b>Viscosity</b>	Not determined
<b>Flammable Limits</b>	Not determined	<b>Explosive Properties</b>	Not applicable
<b>Vapor Density</b>	Not determined	<b>Oxidizing Properties</b>	Not applicable

## Section 9 Physical and Chemical Properties (Continued)

**Odor Threshold** Ethyl Alcohol 180 ppm geometric mean air odor threshold = (detectable); 100 ppm geometric mean air odor threshold = (recognizable)  
Isopropyl Alcohol 43 ppm geometric mean air odor threshold = (detectable); 19 ppm geometric mean air odor threshold = (recognizable)

**9.2 Other Information** None

## Section 10 Stability and Reactivity

**10.1 Reactivity** No data available.

**10.2 Chemical Stability** Stable under normal temperatures and pressures.

**10.3 Possibility of hazardous reactions**  
No data available.

**10.4 Conditions to Avoid** Avoid contact with heat, ignition sources and incompatible materials.

**10.5 Incompatible materials** Strong acids  
Strong bases  
Strong oxidizers

**10.6 Hazardous Decomposition Products**  
No decomposition products posing significant hazards would be expected from this product.

## Section 11 Toxicological Information

### 11.1 Information on toxicological effects

#### Toxicity Data for Hazardous Ingredients

Ethyl Alcohol CAS # 64-17-5	Oral LD50 Rat 7060 mg/kg; Inhalation LC50 Rat 124.7 mg/L 4 h
Isopropyl Alcohol CAS # 67-63-0	Inhalation LC50 Rat 72.6 mg/L 4 h; Oral LD50 Rat 4396 mg/kg; Dermal LD50 Rat 12800 mg/kg; Dermal LD50 Rabbit 12870 mg/kg
Ethyl Paraben CAS # 120-47-8	Oral LD50 Mouse 3 g/kg
Hydrogen Peroxide CAS # 7722-84-1	Inhalation LC50 Rat 2 mg/L 4 h; Oral LD50 Rat 801 mg/kg; Dermal LD50 Rat 4060 mg/kg; Dermal LD50 Rabbit 2000 mg/kg

**Primary Routes of Exposure** Eye contact, ingestion, inhalation, and skin contact.

**Skin Corrosion/Irritation** Causes skin irritation.

**Serious eye damage/eye irritation** Causes eye irritation

**Skin/Respiratory sensitization** May cause sensitization by inhalation and skin contact.

**Carcinogenicity** No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP, OSHA or 67/548/EEC Annex I.

**Mutagenicity** Animal studies indicate possible mutagenic and teratogenic effects.

**Reproductive Toxicity** Animal studies indicate possible reproductive effects.

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## Section 11 Toxicological Information (Continued)

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### Specific target organ toxicity – single exposure

None identified

### Specific target organ toxicity – repeated exposure

None identified

### Aspiration hazard

None identified

### Potential Effects of Acute Exposure

May cause irritation or burning of skin and eyes by contact. Inhalation and ingestion of large volumes may cause burning of mucous membrane, respiratory irritation, and central nervous system depression.

### Potential Effects of Chronic Exposure

Chronic exposure may result in effects similar to those described for acute exposure. Frequent or long-term contact may dry out the skin resulting in dermatitis.

### Symptoms of Overexposure

Symptoms of overexposure may include: throat irritation and coughing; dry, red, cracked skin; red, irritated eyes; headache, drowsiness, dizziness, stupor; convulsions and coma.

### Conditions Aggravated by Exposure

Individuals with eye, kidney, liver and cardiovascular, nervous and respiratory system disorders may find these conditions aggravated by exposure to this product.

### Other Information

None identified

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## Section 12 Ecological Information

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### 12.1 Ecotoxicity

#### Fresh Water Species

Ethyl Alcohol  
CAS # 64-17-5

96 h LC50 Oncorhynchus mykiss: 12.0 - 16.0 mL/L [static]; 96 h LC50 Pimephales promelas: >100 mg/L [static]; 96 h LC50 Pimephales promelas: 13400 - 15100 mg/L [flow-through]

Isopropyl Alcohol  
CAS # 67-63-0

96 h LC50 Pimephales promelas: 9640 mg/L [flow-through]; 96 h LC50 Pimephales promelas: 11130 mg/L [static]; 96 h LC50 Lepomis macrochirus: >1400000 µg/L

Hydrogen Peroxide  
CAS # 7722-84-1

96 h LC50 Pimephales promelas: 16.4 mg/L; 96 h LC50 Lepomis macrochirus: 18-56 mg/L [static]; 96 h LC50 Oncorhynchus mykiss: 10.0-32.0 mg/L [static]

#### Microtox

No information available.

#### Water Flea

Ethyl Alcohol  
CAS # 64-17-5

48 h LC50 Daphnia magna: 9268 - 14221 mg/L; 24 h EC50 Daphnia magna: 10800 mg/L; 48 h EC50 Daphnia magna: 2 mg/L [Static]

Isopropyl Alcohol  
CAS # 67-63-0

48 h EC50 Daphnia magna: 13299 mg/L

Hydrogen Peroxide  
CAS # 7722-84-1

24 h EC50 Daphnia magna: 7.7 mg/L; 48 h EC50 Daphnia magna: 18 - 32 mg/L [Static]

## Section 12 Ecological Information (Continued)

### Fresh Water Algae

Isopropyl Alcohol CAS # 67-63-0	96 h EC50 Desmodosmus subspicatus: >1000 mg/L; 72 h EC50 Desmodosmus subspicatus: >1000 mg/L
Hydrogen Peroxide CAS # 7722-84-1	72 h EC50 Chlorella vulgaris: 2.5 mg/L

<b>12.2 Persistence and degradability</b>	No information available.
<b>12.3 Bioaccumulation</b>	No information available
<b>12.4 Mobility in soil</b>	No information available.
<b>12.5 Results of PBT and vPvB assessment</b>	Not applicable
<b>12.6 Other Adverse Effects</b>	No information available

## Section 13 Disposal Considerations

<b>13.1 Waste treatment methods</b>	
<b>Product Waste Disposal</b>	Dispose of waste product, unused product and contaminated packaging in compliance with federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information.
<b>13.2 Additional information</b>	None

## Section 14 Transport Information

Shipping Information	IATA	IMDG	US DOT	European ADR	Canadian TDG
<b>14.1 UN/ID Number</b>	1987	1987	1987	1987	PIN - 1987
<b>14.2 Shipping Name</b>	Alcohols, n.o.s. (Ethanol, Isopropanol solution)				
<b>14.3 Hazard Class</b>	3 Flammable Liquids	3 Flammable liquids	3 ORM-D Consumer Commodity	3 Flammable Liquids	3 Flammable Liquids
<b>Subsidiary Risk</b>	None	None	None	None	None
<b>Classification Code</b>	Not applicable	Not applicable	Not applicable	F1	Not applicable
<b>14.4 Packing Group</b>	II	II	II	II	II
<b>Special Provisions</b>	A3	274	172	274	16
<b>Additional information</b>					
<b>IATA ERG Code</b>	3L	Not applicable	Not applicable	Not applicable	Not applicable
<b>EmS</b>	Not applicable	F-E, S-D	Not applicable	Not applicable	Not applicable
<b>NAERG Code</b>	Not applicable	Not applicable	127	Not applicable	127
<b>14.5 Environmental Hazard</b>					
<b>Marine Pollutant</b>	Not applicable	No	Not applicable	Not applicable	Not applicable

## Section 14 Transport Information (Continued)

Shipping Information	IATA	IMDG	US DOT	European ADR	Canadian TDG
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### 14.6 Special Precautions for users

None

## Section 15 Regulatory Information

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

#### US Federal and State Regulations

**SARA 313** Isopropyl Alcohol is subject to reporting requirements of Section 313, Title III of SARA. 1.0 % de minimis concentration (only)

**CERCLA RG's, 40 CFR 302.4** No ingredients listed.

**California Proposition 65** No ingredients listed.

**Massachusetts MSL** Ethyl Alcohol is listed.  
Isopropyl Alcohol is listed.  
Hydrogen Peroxide is listed.

#### **New Jersey Dept. of Health RTK List**

Ethyl Alcohol is listed.  
Isopropyl Alcohol is listed.  
Hydrogen Peroxide is listed.

#### **Pennsylvania RTK**

Ethyl Alcohol is listed.  
Isopropyl Alcohol is listed.  
Hydrogen Peroxide is listed.

#### EU Regulations

This SDS complies with EC Regulations 1907/2006 (REACH) and amendments.

**Water Hazard Class (Germany) WGK 1**, low water endangering

**REACH 1907/2006 EC - Annex XIV - list of substances subject to authorization.**

No ingredients listed.

#### Canada

This product is exempt from WHMIS label and SDS requirements.

**PIN** 1987

#### **Ingredients on Ingredient Disclosure List**

Ethyl Alcohol  
Isopropyl Alcohol  
Hydrogen Peroxide

#### **Ingredients with unknown toxicological properties**

Product is exempt

### 15.2 Chemical Safety Assessment Not available

*Some hazardous ingredients listed in Section 15 are below OSHA's and WHMIS' 1.0% w/w (0.1% for carcinogens) or EU's ingredient specific concentrations required for reporting in Section 3.*

## Section 16 Other Information

<b>Beckman Coulter Safety Rating</b>	<b>Flammability: 3</b> <b>Health: 2</b> <b>Reactivity with Water: 2</b> <b>Contact: 2</b>	<b>Code</b> 0=None 1=Slight 2=Caution 3=Severe
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**Revision Changes** Updated part numbers.

### Hazard Class, hazard statements and risk phrase description from section 3

C - Corrosive  
F - Highly flammable  
O - Oxidising  
Xi - Irritant  
R11 Highly flammable.  
R35 Causes severe burns.  
R20/22 Harmful by inhalation and if swallowed.  
R36 Irritating to eyes.  
R67 Vapours may cause drowsiness and dizziness.  
R5 Heating may cause an explosion.  
R8 Contact with combustible material may cause fire.  
B2 - Flammable and Combustible Material: Flammable Liquid  
C - Oxidizing Material  
D2B - Poisonous and Infectious Material: Division 2 - Other Toxic Effects: Toxic (Skin sensitization)  
D2B - Poisonous and Infectious Material: Division 2 - Other Toxic Effects: Toxic (Skin or Eye Irritation)  
E - Corrosive Material  
Acute Tox. Inhal. 4 - Acute Toxicity Inhalation, Category 4  
Acute Tox. Oral 4 - Acute Toxicity Oral, Category 4  
Eye Dam. 1 - Eye Damage Category 1  
Eye Irrit. 2 - Eye Irritation Category 2  
Flam. Liq. 2 - Flammable Liquids, Category 2  
Ox. Liq. 1 - Oxidizing Liquids Category 1  
Skin Corr. 1A - Skin Corrosion Category 1A  
Skin Irrit. 2 - Skin Irritation Category 2  
STOT SE 3 - Specific Target Organ Toxicity Single Exposure Category 3  
STOT SE 3 - Specific Target Organ Toxicity Single Exposure Category 3  
H225 - Highly flammable liquid and vapour.  
H271 - May cause fire or explosion; strong oxidiser.  
H302 - Harmful if swallowed.  
H314 - Causes severe skin burns and eye damage.  
H315 - Causes skin irritation.  
H318 - Causes serious eye damage.  
H319 - Causes serious eye irritation.  
H332 - Harmful if inhaled.  
H335 - May cause respiratory irritation.

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## Section 16 Other Information (Continued)

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H336 - May cause drowsiness or dizziness.

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For further information, please contact your local Beckman Coulter representative.

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## SAFETY DATA SHEET

Hemocult<sup>®</sup>SENSA<sup>®</sup> Developer  
 Doc. ID: 64115-75 AJ  
 Revised (year/month/day) 2011/11/23

### Section 1 Company and Product Identification

<b>Product Name</b>	Hemocult <sup>®</sup> SENSA <sup>®</sup> Developer (Part B)
<b>Part Number</b>	Component of P/N 395035, 64000, 64115, 64130, 64151, 64152, 64200, 65940
<b>Product Use</b>	For In Vitro Diagnostic Use. See product literature for details.
<b>Series Name</b>	64000 Series
<b>Manufacturer</b>	Beckman Coulter, Inc. 250 S. Kraemer Blvd Brea, CA 92821, U.S.A. Tel: 800-854-3633 <b>E-mail:</b> SDSNT@beckman.com
<b>EC REP Address</b>	Beckman Coulter Ireland Inc. Mervue Business Park Mervue, Galway, Ireland Tel: 353 91 774068
<b>Distributor and Emergency Phone No.</b>	 Refer to attached list, Document ID: 472050, for local distributor and emergency phone numbers. Chemtrec Emergency Tel No. U.S.A. 800-424-9300, International (001) 703-527-3887 (24 Hours)

### Section 2 Hazards Identification

<b>Emergency Overview</b>	<b>Colorless; Clear; Liquid; Alcohol odor</b> <b>Flammable liquid and vapor.</b> <b>CNS depressant. Eye, skin and respiratory tract irritant.</b> <b>Potential sensitizer.</b>		
<b>Physical Hazards</b>	Vapors of flammable ingredients are heavier than air and may travel to an ignition source, ignite and flash back.		
<b>Potential Health Effects Summary</b>	May cause eye, skin and respiratory tract irritation and central nervous system depression with headache, dizziness, nausea and unconsciousness. Potential sensitizer. See Section 11 Toxicological Information for more detailed health information.		
<b>Potential Environmental Effects</b>	Not available		
<b>Product Hazard Classifications</b>	<b>EU:</b> F;R11	<b>US OSHA:</b> Hazardous	<b>WHMIS:</b> Exempt

## Section 2 Hazards Identification (Continued)

**Label Elements**
**Classification as per EC Directives (1999/45/EC and 67/548 EEC)**

Highly flammable


**Risk and Safety Phrases**

R11 Highly flammable.

S16 Keep away from sources of ignition - No smoking.

S7 Keep container tightly closed.

**Other Hazard**

None identified.

## Section 3 Composition and Information on Ingredients

Hazardous Ingredients:		Hazard Classification of Pure Ingredients		
Chemical Name	% by wt.	<u>EU</u>	<u>WHMIS</u>	<u>US OSHA</u>
Ethyl Alcohol CAS # 64-17-5 EINECS # 200-578-6 Index # 603-002-00-5	<85	F;R11 Flam. Liq. 2;H225	B2; D2A; D2B	Flammable Irritant
Isopropyl Alcohol CAS # 67-63-0 EINECS # 200-661-7 Index # 603-117-00-0	<5	F;R11 Xi;R36-67 Flam. Liq. 2;H225 Eye Irrit. 2A;H319 STOT SE 3;H336	B2; D2B	Flammable Irritant
Ethyl Paraben CAS # 120-47-8 EINECS # 204-399-4 Index # Not available	< 5	No	D2B	Irritant Sensitizer
Hydrogen Peroxide CAS # 7722-84-1 EINECS # 231-765-0 Index # 008-003-00-9	< 2	O;R5-8 C;R35-20/22 Ox. Liq. 1;H271 Acute Tox. Oral 4;H302 Acute Tox. Inhal. 4;H332 Eye Dam. 1;H318 STOT SE 3;H335 Skin Corr. 1A;H314	C; E	Oxidizer Corrosive

See Section 15 Regulatory Information for additional information on hazard classifications.

See Section 16 for Risk Phrases and WHMIS Classification Description.

## Section 4 First Aid Measures

**Inhalation**

If product is inhaled, move exposed individual to fresh air. If individual is not breathing, begin artificial respiration immediately and obtain medical attention.

### Section 4 First Aid Measures (Continued)

<b>Eye Contact</b>	If product enters eyes, wash eyes gently under running water for 15 minutes or longer, making sure that the eyelids are held open. If pain or irritation occur, obtain medical attention.
<b>Skin Contact</b>	In case of skin contact, flush with copious amounts of water for at least 15 minutes. If pain or irritation occur, obtain medical attention.
<b>Ingestion</b>	If ingested, wash mouth out with water. If irritation or discomfort occurs, seek medical attention.

### Section 5 Fire Fighting Measures

<b>Flammable Properties</b>	Flammable liquid and vapor.
<b>Extinguishing Media</b>	Use extinguishing media suitable for surrounding fire.
<b>Special Fire and Explosion Hazards</b>	Vapors form explosive mixtures with air. Vapors are heavier than air; fire may flash from ignition source back along vapor trail.
<b>Hazardous Combustion Products</b>	Depending upon fire conditions, combustion products may range from irritants and asphyxiants to acutely toxic gases.
<b>Protective Equipment for Firefighters</b>	Self-contained breathing apparatus is recommended for firefighters in all chemical fire situations.

### Section 6 Accidental Release Measures

<b>Personal Precautions</b>	Use good laboratory procedures; avoid eye and skin contact.
<b>Spill and Leak Procedures</b>	Absorb spilled material with an appropriate inert, non-flammable absorbent and dispose according to local regulations.
<b>Environmental Precautions</b>	Contain spill to prevent migration.

### Section 7 Handling and Storage

<b>Handling Precautions</b>	Use good laboratory procedures; avoid eye and skin contact.
<b>Recommended Storage Conditions</b>	To maintain efficacy, store according to the instructions in the product labeling. Keep away from incompatible material (see Section 10).

### Section 8 Exposure Controls and Personal Protection

#### Exposure Limits

#### US OSHA:

Ethyl Alcohol CAS # 64-17-5	1000 ppm TWA; 1900 mg/m <sup>3</sup> TWA
Isopropyl Alcohol CAS # 67-63-0	400 ppm TWA; 980 mg/m <sup>3</sup> TWA
Hydrogen Peroxide CAS # 7722-84-1	1 ppm TWA; 1.4 mg/m <sup>3</sup> TWA

## Section 8 Exposure Controls and Personal Protection (Continued)

**ACGIH:**

Ethyl Alcohol CAS # 64-17-5	1000 ppm STEL
Isopropyl Alcohol CAS # 67-63-0	400 ppm STEL; 200 ppm TWA
Hydrogen Peroxide CAS # 7722-84-1	1 ppm TWA

**DFG MAK:**

Ethyl Alcohol CAS # 64-17-5	500 ppm MAK; 960 mg/m <sup>3</sup> MAK; 1000 ppm Peak; 1920 mg/m <sup>3</sup> Peak
Isopropyl Alcohol CAS # 67-63-0	200 ppm MAK; 500 mg/m <sup>3</sup> MAK; 400 ppm Peak; 1000 mg/m <sup>3</sup> Peak
Hydrogen Peroxide CAS # 7722-84-1	0.5 ppm MAK; 0.71 mg/m <sup>3</sup> MAK; 0.5 ppm Peak; 0.71 mg/m <sup>3</sup> Peak

**Ireland**

Ethyl Alcohol CAS # 64-17-5	1000 ppm TWA; 1900 mg/m <sup>3</sup> TWA
Isopropyl Alcohol CAS # 67-63-0	200 ppm TWA; 400 ppm STEL; Potential for cutaneous absorption
Hydrogen Peroxide CAS # 7722-84-1	1 ppm TWA; 1.5 mg/m <sup>3</sup> TWA; 2 ppm STEL; 3 mg/m <sup>3</sup> STEL

**NIOSH**

Ethyl Alcohol CAS # 64-17-5	3300 ppm IDLH (10% LEL); 1000 ppm TWA; 1900 mg/m <sup>3</sup> TWA
Isopropyl Alcohol CAS # 67-63-0	2000 ppm IDLH (10% LEL); 400 ppm TWA; 980 mg/m <sup>3</sup> TWA; 500 ppm STEL; 1225 mg/m <sup>3</sup> STEL
Hydrogen Peroxide CAS # 7722-84-1	75 ppm IDLH; 1 ppm TWA; 1.4 mg/m <sup>3</sup> TWA

**Japan**

None established

**Engineering Controls**

No special engineering controls are required. Use with good general ventilation.

**Respiratory Protection**

Under normal conditions, the use of this product should not require respiratory protection. If overexposure should occur and ventilation is not adequate to maintain airborne concentrations at acceptable levels, the use of respiratory protection should be evaluated by a qualified professional.

**Eye Protection**

Safety glasses or chemical goggles should be worn to prevent eye contact. Refer U.S. OSHA 29 CFR 1910.133, European Standard EN166 or appropriate government standards.

**Skin Protection**

Impervious gloves, such as Nitrile or equivalent, should be worn to prevent skin contact. Refer U.S. OSHA 29 CFR 1910.138, European Standard EN374 or appropriate government standards.

## Section 9 Physical and Chemical Properties

**Physical State**

Liquid

**Vapor Density**

Not available

### Section 9 Physical and Chemical Properties (Continued)

<b>Color</b>	Colorless	<b>Specific Gravity (Water=1.0)</b>	0.9 @20°C
<b>Transparency</b>	Clear	<b>Solubility</b>	
<b>Odor</b>	Alcohol odor	<b>Water</b>	Soluble
<b>pH</b>	Not available	<b>Organic</b>	Not available
<b>Freezing Point</b>	Not available	<b>Viscosity</b>	Not available
<b>Boiling Point</b>	Not available	<b>Coefficient of Water/Oil Distribution</b>	Not available
<b>Flash Point</b>	15.5°C (59.9°F)	<b>Autoignition Temp.</b>	Not available
<b>Evaporation Rate</b>	Not available	<b>Decomposition Temperature</b>	Not available
<b>Flammability (Solid, Gas)</b>	Not applicable	<b>Percent Volatiles</b>	Not available
<b>Flammable Limits</b>	Not available	<b>Vapor Pressure</b>	Not available
<b>Oxidizing Properties</b>	Not applicable	<b>Odor Threshold</b>	Ethyl Alcohol 180 ppm geometric mean air odor threshold = (detectable); 100 ppm geometric mean air odor threshold = (recognizable) Isopropyl Alcohol 43 ppm geometric mean air odor threshold = (detectable); 19 ppm geometric mean air odor threshold = (recognizable)

### Section 10 Stability and Reactivity

<b>Stability</b>	Stable under normal temperatures and pressures.
<b>Hazardous Incompatibilities</b>	Strong acids Strong bases Strong oxidizers
<b>Hazardous Decomposition Products</b>	No decomposition products posing significant hazards would be expected from this product.
<b>Conditions to Avoid</b>	Avoid contact with incompatible materials.

## Section 11 Toxicological Information

### Toxicity Data for Hazardous Ingredients

Ethyl Alcohol CAS # 64-17-5	Oral LD50 Rat 7060 mg/kg; Inhalation LC50 Rat 124.7 mg/L 4 h
Isopropyl Alcohol CAS # 67-63-0	Inhalation LC50 Rat 72.6 mg/L 4 h; Oral LD50 Rat 4396 mg/kg; Dermal LD50 Rat 12800 mg/kg; Dermal LD50 Rabbit 12870 mg/kg
Ethyl Paraben CAS # 120-47-8	Oral LD50 Mouse 3 g/kg
Hydrogen Peroxide CAS # 7722-84-1	Inhalation LC50 Rat 2 mg/L 4 h; Oral LD50 Rat 801 mg/kg; Dermal LD50 Rat 4060 mg/kg; Dermal LD50 Rabbit 2000 mg/kg

### Primary Routes of Exposure

Eye contact, ingestion, inhalation, and skin contact.

### Potential Effects of Acute Exposure

May cause irritation or burning of skin and eyes by contact. Inhalation and ingestion of large volumes may cause burning of mucous membrane, respiratory irritation, and central nervous system depression.

### Potential Effects of Chronic Exposure

Chronic exposure may result in effects similar to those described for acute exposure. Frequent or long-term contact may dry out the skin resulting in dermatitis. Repeated exposure may result in allergic reactions.

### Symptoms of Overexposure

Symptoms of overexposure may include: throat irritation and coughing; dry, red, cracked skin; red irritated eyes; headache, drowsiness, dizziness, stupor; convulsions and coma.

### Conditions Aggravated by Exposure

Individuals with eye and skin disorders may find these conditions aggravated by exposure to this product.  
Individuals with eye, kidney, liver and cardiovascular, nervous and respiratory system disorders may find these conditions aggravated by exposure to this product.

### Irritation/Sensitization

May cause sensitization by inhalation and skin contact.

### Carcinogenicity

No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP, OSHA or 67/548/EEC Annex I.

### Mutagenicity

None identified.

### Reproductive Toxicity

Reproductive effects have been reported in animal studies.

### Other Effects

None identified.

## Section 12 Ecological Information

### Ecotoxicity

#### Fresh Water Species

Ethyl Alcohol CAS # 64-17-5	96 Hr LC50 Oncorhynchus mykiss: 12.0 - 16.0 mL/L [static]; 96 Hr LC50 Pimephales promelas: >100 mg/L [static]; 96 Hr LC50 Pimephales promelas: 13400 - 15100 mg/L [flow-through]
Isopropyl Alcohol CAS # 67-63-0	96 Hr LC50 Pimephales promelas: 9640 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 11130 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: >1400000 µg/L
Hydrogen Peroxide CAS # 7722-84-1	96 Hr LC50 Pimephales promelas: 16.4 mg/L; 96 Hr LC50 Lepomis macrochirus: 18-56 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 10.0-32.0 mg/L [static]

#### Microtox

No information available.

## Section 12 Ecological Information (Continued)

<b>Water Flea</b>	
Ethyl Alcohol CAS # 64-17-5	48 Hr LC50 Daphnia magna: 9268 - 14221 mg/L; 24 Hr EC50 Daphnia magna: 10800 mg/L; 48 Hr EC50 Daphnia magna: 2 mg/L [Static]
Isopropyl Alcohol CAS # 67-63-0	48 Hr EC50 Daphnia magna: 13299 mg/L
Hydrogen Peroxide CAS # 7722-84-1	24 Hr EC50 Daphnia magna: 7.7 mg/L; 48 Hr EC50 Daphnia magna: 18 - 32 mg/L [Static]
<b>Fresh Water Algae</b>	
Isopropyl Alcohol CAS # 67-63-0	96 Hr EC50 Desmodesmus subspicatus: >1000 mg/L; 72 Hr EC50 Desmodesmus subspicatus: >1000 mg/L
Hydrogen Peroxide CAS # 7722-84-1	72 Hr EC50 Chlorella vulgaris: 2.5 mg/L
<b>Biodegradability</b>	No information available.
<b>Bioaccumulation</b>	No information available.
<b>Mobility</b>	No information available.
<b>Other Adverse Effects</b>	No information available.

## Section 13 Disposal Considerations

<b>Waste Disposal</b>	Dispose of waste product, unused product and contaminated packaging in compliance with federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information.
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## Section 14 Transport Information

<b>Shipping Information</b>	Shipping Name	Alcohols, n.o.s. (Ethanol, Isopropanol solution)
	UN/ID Number	1987
	Packing Group	II
<b>IATA</b>	Hazard Class	3 Flammable Liquids
	Subsidiary Risk	None
	Special Provisions	A3
	IATA ERG Code	3L
<b>IMDG</b>	Hazard Class	3 Flammable liquids
	Subsidiary Risk	None
	Special Provisions	274
	Marine Pollutant	No
<b>US DOT</b>	Hazard Class	3 ORM-D Consumer Commodity
	Subsidiary Risk	None
	Special Provisions	173.150
	NAERG Number	127
<b>European ADR</b>	ADR Classification	3 Flammable Liquids
	Classification Code	F1

## Section 14 Transport Information (Continued)

	Subsidiary Risk	None
<b>Canadian TDG</b>	PIN	1987
	TDG Classification	3 Flammable Liquids
	Subsidiary Risk	None
	Special Provisions	16
	NAERG Number	127

## Section 15 Regulatory Information

### US Federal and State Regulations

**SARA 313** Isopropyl Alcohol is subject to reporting requirements of Section 313, Title III of SARA.

**CERCLA RG's,  
40 CFR 302.4** No ingredients listed.

**California Proposition 65** Ethyl Alcohol has been identified by the State of California to cause reproductive harm. The State of California has adopted a regulation which requires a warning be given to individual who may be exposed to chemicals identified by the State to cause cancer or reproductive harm. Accordingly, Beckman Coulter advises you of the following warning:  
**WARNING:** This product contains a chemical known to the State of California to cause reproductive harm.

**Massachusetts MSL** Ethyl Alcohol is listed.  
Isopropyl Alcohol is listed.  
Hydrogen Peroxide is listed.

**New Jersey Dept. of  
Health RTK List** Ethyl Alcohol is listed.  
Isopropyl Alcohol is listed.  
Hydrogen Peroxide is listed.

**Pennsylvania RTK** Ethyl Alcohol is listed.  
Isopropyl Alcohol is listed.  
Hydrogen Peroxide is listed.

### EU Regulations

**Water Hazard Class  
(Germany)** WGK 1, low water endangering

### Canada

This product is exempt from WHMIS label and SDS requirements.

**PIN:** 1987

**Ingredients on Ingredient  
Disclosure List:** Ethyl Alcohol  
Isopropyl Alcohol  
Hydrogen Peroxide

**Ingredients with unknown  
toxicological properties:** Product is exempt

*Some hazardous ingredients listed in Section 15 are below OSHA's and WHMIS' 1.0% w/w (0.1% for carcinogens) or EU's ingredient specific concentrations required for reporting in Section 3.*

## Section 16 Other Information

<b>Beckman Coulter Safety Rating</b>	<b>Flammability (Section V): 3</b> <b>Health (Section XI): 2</b> <b>Reactivity with Water (Section X): 2</b> <b>Contact (Section VIII): 2</b>	Code 0=none 1=slight 2=caution 3=severe
<b>Revision Changes</b>	Update of product hazard classification for EU.	
<b>Hazard Class and Phrases Description From Section 3</b>	<p>C - Corrosive  F - Highly flammable  O - Oxidising  Xi - Irritant  R11 Highly flammable.  R35 Causes severe burns.  R20/22 Harmful by inhalation and if swallowed.  R36 Irritating to eyes.  R67 Vapours may cause drowsiness and dizziness.  R5 Heating may cause an explosion.  R8 Contact with combustible material may cause fire.  B2 - Flammable and Combustible Material: Flammable Liquid  C - Oxidizing Material  D2A - Poisonous and Infections Material: Division 2 - Other Toxic Effects: Very Toxic (Reproductive cell mutagenicity)  D2B - Poisonous and Infectious Material: Division 2 - Other Toxic Effects: Toxic (Skin sensitization)  D2B - Poisonous and Infectious Material: Division 2 - Other Toxic Effects: Toxic (Skin or Eye Irritation)  E - Corrosive Material  Acute Tox. Inhal. 4 - Acute Toxicity Inhalation, Category 4  Acute Tox. Oral 4 - Acute Toxicity Oral, Category 4  Eye Dam. 1 - Eye Damage Category 1  Eye Irrit. 2A - Eye Irritation Category 2A  Flam. Liq. 2 - Flammable Liquids, Category 2  Ox. Liq. 1 - Oxidizing Liquids Category 1  Skin Corr. 1A - Skin Corrosion Category 1A  STOT SE 3 - Specific Target Organ Toxicity Single Exposure Category 3  H225 Highly flammable liquid and vapour.  H271 May cause fire or explosion; strong oxidiser.  H302 Harmful if swallowed.  H314 Causes severe skin burns and eye damage.  H318 Causes serious eye damage.  H319 Causes serious eye irritation.  H332 Harmful if inhaled.  H335 May cause respiratory irritation.  H336 May cause drowsiness or dizziness.</p>	
Water Hazard Class (Germany): WGK 1, slightly water endangering (self classification)		
This SDS complies with EC Regulations 1907/2006 (REACH) and amendments.		
For further information, please contact your local Beckman Coulter representative.		