

## 1. Product and Company Identification

**Material name** Albumin Reagent  
**Version #** 01  
**Issue date** 01-16-2013  
**Revision date** -  
**Supersedes date** -  
**Kit number** 200-05; 200-45  
**Product use** For the IN VITRO quantitative measurement of albumin in serum.  
**Manufacturer information**  
**Corporate Headquarters** Sekisui Diagnostics, LLC  
 4 Hartwell Place, Lexington, MA 02421, USA  
 www.sekisuidiagnostics.com  
 Phone: 800-332-1042  
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 Access code 333512

## 2. Hazards Identification

**Physical state** Liquid.  
**Appearance** Clear, dark green liquid.  
**Emergency overview** CAUTION  
 May cause eye, skin and respiratory tract irritation.  
**OSHA regulatory status** This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).  
**Potential health effects**  
**Routes of exposure** Inhalation. Ingestion. Skin contact. Eye contact.  
**Eyes** May cause eye irritation.  
**Skin** May cause skin irritation.  
**Inhalation** In high concentrations, vapors may be irritating to the respiratory system.  
**Ingestion** High concentrations: Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.  
**Target organs** Eyes. Skin.  
**Chronic effects** Prolonged skin contact may defat the skin and produce dermatitis.  
**Signs and symptoms** Direct contact with skin and eyes may cause irritation.  
**Potential environmental effects** The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

## 3. Composition / Information on Ingredients

Components	CAS #	Percent
Acetic acid	64-19-7	1 - 5

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First Aid Measures

**First aid procedures**  
**Eye contact** In case of contact, immediately flush eyes with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. Get medical attention if irritation persists.

<b>Skin contact</b>	For skin contact flush with large amounts of water while removing contaminated clothing. Get medical attention if irritation develops and persists.
<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Ingestion</b>	If material is ingested, immediately contact a poison control center.
<b>Notes to physician</b>	Provide general supportive measures and treat symptomatically.

## 5. Fire Fighting Measures

<b>Flammable properties</b>	This product is not flammable.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Extinguish with water spray, carbon dioxide, dry chemical or material appropriate for the surrounding fire.
<b>Unsuitable extinguishing media</b>	None known.
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	By heating and fire, corrosive vapors/gases may be formed.
<b>Protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>Hazardous combustion products</b>	Fire will generate toxic and irritating gases. Carbon monoxide and carbon dioxide. Nitrogen oxides.

## 6. Accidental Release Measures

<b>Personal precautions</b>	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
<b>Environmental precautions</b>	Do not allow to enter drains, sewers or watercourses.
<b>Methods for containment</b>	Absorb spillage with non-combustible, absorbent material.
<b>Methods for cleaning up</b>	Absorb spill with vermiculite or other inert material. Dispose of waste in accordance with all applicable federal, state, local and provincial environmental regulations, per Section 13.
<b>Other information</b>	Clean up in accordance with all applicable regulations.

## 7. Handling and Storage

<b>Handling</b>	Avoid contact with skin and eyes. Wash thoroughly after handling. In case of insufficient ventilation, wear suitable respiratory equipment. Handle and open container with care.
<b>Storage</b>	Store at 18 - 26°C. Store in a closed container away from incompatible materials.

## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Acetic acid (CAS 64-19-7)	STEL	15 ppm
	TWA	10 ppm

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Acetic acid (CAS 64-19-7)	PEL	25 mg/m <sup>3</sup>
		10 ppm

#### Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Acetic acid (CAS 64-19-7)	STEL	37 mg/m <sup>3</sup>
		15 ppm
	TWA	25 mg/m <sup>3</sup>
		10 ppm

**Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)**

<b>Components</b>	<b>Type</b>	<b>Value</b>
Acetic acid (CAS 64-19-7)	STEL	15 ppm
	TWA	10 ppm

**Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

<b>Components</b>	<b>Type</b>	<b>Value</b>
Acetic acid (CAS 64-19-7)	STEL	15 ppm
	TWA	10 ppm

**Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)**

<b>Components</b>	<b>Type</b>	<b>Value</b>
Acetic acid (CAS 64-19-7)	STEL	37 mg/m3
		15 ppm
	TWA	25 mg/m3
		10 ppm

**Mexico. Occupational Exposure Limit Values**

<b>Components</b>	<b>Type</b>	<b>Value</b>
Acetic acid (CAS 64-19-7)	STEL	37 mg/m3
		15 ppm
	TWA	25 mg/m3
		10 ppm

<b>Exposure guidelines</b>	Follow standard monitoring procedures.
<b>Engineering controls</b>	Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors. Provide easy access to water supply and eye wash facilities.
<b>Personal protective equipment</b>	
<b>Eye / face protection</b>	Wear approved safety glasses or goggles.
<b>Skin protection</b>	Wear lab coat or other protective garments. Remove contaminated clothing promptly.
<b>Respiratory protection</b>	Under normal conditions, respirator is not normally required.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical & Chemical Properties

<b>Appearance</b>	Clear, dark green liquid.
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Dark green.
<b>Odor</b>	Mild vinegar odor.
<b>Odor threshold</b>	Not available.
<b>pH</b>	4.2 @ (25°C)
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Boiling point</b>	Not available.
<b>Melting point/Freezing point</b>	Not available.
<b>Solubility (water)</b>	Not available.
<b>Specific gravity</b>	1.009
<b>Flash point</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.

## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Conditions to avoid</b>	Heat, flames and sparks.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	Carbon oxides. Acetic acid.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

## 11. Toxicological Information

### Toxicological data

Components	Species	Test Results
Acetic acid (CAS 64-19-7)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	1060 mg/kg
<i>Inhalation</i>		
LC50	Rat	11.4 mg/l, 4 Hours
<i>Oral</i>		
LD50	Rat	3.31 g/kg
<b>Sensitization</b>	Not classified.	
<b>Acute effects</b>	May cause discomfort if swallowed.	
<b>Local effects</b>	Ingestion may cause irritation and malaise.	
<b>Chronic effects</b>	No data available.	
<b>Carcinogenicity</b>	Not classifiable as to carcinogenicity to humans.	
<b>Epidemiology</b>	No epidemiological data is available for this product.	
<b>Mutagenicity</b>	Not classified.	
<b>Reproductive effects</b>	Not classified.	
<b>Symptoms and target organs</b>	Direct contact with skin and eyes may cause irritation.	
<b>Further information</b>	No other specific acute or chronic health impact noted.	

## 12. Ecological Information

### Ecotoxicological data

Components	Species	Test Results
Acetic acid (CAS 64-19-7)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea ( <i>Daphnia magna</i> ) 65 mg/l, 48 hours
Fish	LC50	Bluegill ( <i>Lepomis macrochirus</i> ) 75 mg/l, 96 hours Fathead minnow ( <i>Pimephales promelas</i> ) 79 mg/l, 96 Hours
<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.	
<b>Environmental effects</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.	
<b>Persistence and degradability</b>	No data is available on the degradability of this product.	
<b>Bioaccumulation / Accumulation</b>	Not available.	
<b>Partition coefficient</b>		
Acetic acid (CAS 64-19-7)	-0.17	
<b>Mobility in environmental media</b>	The product is completely soluble in water.	

### 13. Disposal Considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contaminated instruments and surfaces should be disinfected in accordance with your employer's chemical-specific and universal/standard precautions.
<b>Waste from residues / unused products</b>	Dispose in accordance with all applicable regulations.
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport Information

#### DOT

Not regulated as a hazardous material by DOT.

#### IATA

Not regulated as dangerous goods.

#### IMDG

Not regulated as dangerous goods.

#### TDG

Not regulated as dangerous goods.

### 15. Regulatory Information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. This mixture is a component of an in vitro diagnostic device regulated by the U.S. Food and Drug Administration.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

#### CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

Acetic acid: 5000

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

##### Hazard categories

Immediate Hazard - Yes  
Delayed Hazard - Yes  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

##### Section 302 extremely hazardous substance (40 CFR 355, Appendix A)

No

##### Section 311/312 (40 CFR 370)

No

#### Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)

Not controlled

#### Canadian regulations

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

#### WHMIS status

Controlled

#### WHMIS classification

D2B - Other Toxic Effects-TOXIC

#### WHMIS labeling



#### Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

**State regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**US - California Hazardous Substances (Director's): Listed substance**

Acetic acid (CAS 64-19-7) Listed.

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Not listed.

**US - New Jersey RTK - Substances: Listed substance**

Acetic acid (CAS 64-19-7) Listed.

**US. Massachusetts RTK - Substance List**

Acetic acid (CAS 64-19-7) Listed.

**US. New Jersey Worker and Community Right-to-Know Act**

Not regulated.

**US. Pennsylvania RTK - Hazardous Substances**

Acetic acid (CAS 64-19-7) Listed.

**Mexico regulations** This safety data sheet was prepared in accordance with the Official Mexican Standard (NOM-018-STPS-2000).

## 16. Other Information

**Recommended restrictions** Use in accordance with supplier's recommendations.

**Further information** HMIS® is a registered trade and service mark of the NPCA.

**HMIS® ratings**  
 Health: 1  
 Flammability: 0  
 Physical hazard: 0

**NFPA ratings**  
 Health: 1  
 Flammability: 0  
 Instability: 0

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