(2012 OSHA Hazard Communication Standard (29 CFR 1910.1200))

SAFETY DATA SHEET

SIEMENS

DCA Systems - Microalbumin/Creatinine Reagent Kit

SDS # : 10311480

Section 1. Identification

Product identifier : DCA Systems - Microalbumin/Creatinine Reagent Kit

Product code : 6011A, 10311480

Product type : Solid.

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

Not applicable.

Manufactured/supplied :

Siemens Healthcare Diagnostics Inc.
511 Benedict Avenue
Tarrytown, NY 10591-5097 USA
1-877-229-3711

(800) 424-9300 (CHEMTREC) (24/365)

Section 2. Hazards identification

OSHA/HCS status :

Albumin Reagent	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Creatinine Alkaline Reagent	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Buffer Solution	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture :

Albumin Reagent	Not classified.
Creatinine Alkaline Reagent	ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1A SERIOUS EYE DAMAGE - Category 1
Buffer Solution	Not classified.

Additional information : Not available.

Sodium azide may react with lead or copper plumbing to form highly explosive metal azides.

GHS label elements

Hazard pictograms :

Section 2. Hazards identification

Signal word	:	Albumin Reagent	No signal word.
		Creatinine Alkaline Reagent	Danger
		Buffer Solution	No signal word.
Hazard statements	:	Albumin Reagent	No known significant effects or critical hazards.
		Creatinine Alkaline Reagent	H302 - Harmful if swallowed. H314 - Causes severe skin burns and eye damage.
		Buffer Solution	No known significant effects or critical hazards.
Precautionary statements			
Prevention	:	Albumin Reagent	Not applicable.
		Creatinine Alkaline Reagent	P264 - Wash hands thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
		Buffer Solution	Not applicable.
Response	:	Albumin Reagent	Not applicable.
		Creatinine Alkaline Reagent	P304 + P340 + P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. P301 + P310 + P330 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 + P363 + P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or 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 physician.
		Buffer Solution	Not applicable.
Storage	:	Albumin Reagent	Not applicable.
		Creatinine Alkaline Reagent	Not applicable.
		Buffer Solution	Not applicable.
Disposal	:	Albumin Reagent	Not applicable.
		Creatinine Alkaline Reagent	P501 - Dispose of contents and container in accordance with all local, regional, and national regulations.
		Buffer Solution	Not applicable.
Supplemental label elements	:	Albumin Reagent	None known.
		Creatinine Alkaline Reagent	None known.
		Buffer Solution	None known.
Hazards not otherwise classified	:	Albumin Reagent	None known.
		Creatinine Alkaline Reagent	None known.
		Buffer Solution	None known.

Section 3. Composition/information on ingredients

Substance/mixture : Albumin Reagent — Mixture
Creatinine Alkaline Reagent — Mixture
Buffer Solution — Mixture

Ingredient name	%	CAS number
Albumin Reagent		
sodium azide	0.18	26628-22-8
Creatinine Alkaline Reagent		
potassium hydroxide	89	1310-58-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact

: Albumin Reagent — Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Creatinine Alkaline Reagent — Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Buffer Solution — Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation

: Albumin Reagent — Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Creatinine Alkaline Reagent — Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie,

Section 4. First aid measures

			belt or waistband.
		Buffer Solution	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	:	Albumin Reagent	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		Creatinine Alkaline Reagent	Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
		Buffer Solution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	:	Albumin Reagent	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
		Creatinine Alkaline Reagent	Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
		Buffer Solution	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Section 4. First aid measures

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	:	Albumin Reagent	No known significant effects or critical hazards.
		Creatinine Alkaline Reagent	Causes serious eye damage.
		Buffer Solution	No known significant effects or critical hazards.
Inhalation	:	Albumin Reagent	No known significant effects or critical hazards.
		Creatinine Alkaline Reagent	No known significant effects or critical hazards.
		Buffer Solution	No known significant effects or critical hazards.
Skin contact	:	Albumin Reagent	No known significant effects or critical hazards.
		Creatinine Alkaline Reagent	Causes severe burns.
		Buffer Solution	No known significant effects or critical hazards.
Ingestion	:	Albumin Reagent	No known significant effects or critical hazards.
		Creatinine Alkaline Reagent	Harmful if swallowed.
		Buffer Solution	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	:	Albumin Reagent	No specific data.
		Creatinine Alkaline Reagent	Adverse symptoms may include the following: pain watering redness
		Buffer Solution	No specific data.
Inhalation	:	Albumin Reagent	No specific data.
		Creatinine Alkaline Reagent	No specific data.
		Buffer Solution	No specific data.
Skin contact	:	Albumin Reagent	No specific data.
		Creatinine Alkaline Reagent	Adverse symptoms may include the following: pain or irritation redness blistering may occur
		Buffer Solution	No specific data.
Ingestion	:	Albumin Reagent	No specific data.
		Creatinine Alkaline Reagent	Adverse symptoms may include the following: stomach pains
		Buffer Solution	No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	No specific treatment.
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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : In case of fire, use water spray (fog), foam or dry chemical.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : No specific fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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.

Advice on general occupational hygiene : 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. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : 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. Store locked up. 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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Albumin Reagent sodium azide	**ACGIH TLV (United States, 3/2015). Notes: as hydrazoic acid vapor** C: 0.11 ppm, (as Hydrazoic acid vapor) Form: as Hydrazoic acid vapor **ACGIH TLV (United States, 3/2015).** C: 0.29 mg/m³, (as Sodium azide) Form: as Sodium azide **NIOSH REL (United States, 10/2013). Absorbed through skin. Notes: NAN3** CEIL: 0.3 mg/m³, (NAN3) **NIOSH REL (United States, 10/2013). Absorbed through skin. Notes: as HN3** CEIL: 0.1 ppm, (as HN3) **OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. Notes: as HN3** CEIL: 0.1 ppm, (as HN3) **OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. Notes: as NaN3** CEIL: 0.3 mg/m³, (as NaN3)
Creatinine Alkaline Reagent potassium hydroxide	**OSHA (United States, 1994).** CEIL: 2 mg/m³ **NIOSH (United States, 1994).** TWA: 2 mg/m³ **ACGIH TLV (United States, 3/2015).** C: 2 mg/m³ **NIOSH REL (United States, 10/2013).** TWA: 2 mg/m³ 10 hours. **OSHA PEL 1989 (United States, 3/1989).** CEIL: 2 mg/m³

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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.

Individual protection measures

Section 8. Exposure controls/personal protection

Hygiene measures : 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. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : 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.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Physical state :	Albumin Reagent	Solid.
	Creatinine Alkaline Reagent	Solid.
	Buffer Solution	Liquid.
Color :	Albumin Reagent	Not relevant/applicable due to nature of the product.
	Creatinine Alkaline Reagent	Colorless.
	Buffer Solution	Colorless.
Odor :	Albumin Reagent	Odorless.
	Creatinine Alkaline Reagent	Odorless.
	Buffer Solution	Odorless.
pH :	Albumin Reagent	Not applicable.
	Creatinine Alkaline Reagent	Not applicable.
	Buffer Solution	Not available.
Flash point :	Albumin Reagent	[Product does not sustain combustion.]
	Creatinine Alkaline Reagent	[Product does not sustain combustion.]
	Buffer Solution	[Product does not sustain combustion.]
Flammability (solid, gas) :	Albumin Reagent	Not relevant/applicable due to nature of the product.
	Creatinine Alkaline Reagent	Not relevant/applicable due to nature of the product.
	Buffer Solution	Not relevant/applicable due to nature of the product.
Relative density :	Albumin Reagent	Not relevant/applicable due to nature of the product.
	Creatinine Alkaline Reagent	Not relevant/applicable due to nature of the product.
	Buffer Solution	Not relevant/applicable due to nature of the product.

Section 9. Physical and chemical properties

Solubility in water : Albumin Reagent — Not relevant/applicable due to nature of the product.
Creatinine Alkaline Reagent — Not relevant/applicable due to nature of the product.
Buffer Solution — Not relevant/applicable due to nature of the product.

Partition coefficient: n-octanol/water : Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Auto-ignition temperature : Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Viscosity : Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Aerosol product

Type of aerosol : Albumin Reagent — Not applicable.
Creatinine Alkaline Reagent — Not applicable.
Buffer Solution — Not applicable.

Section 10. Stability and reactivity

Reactivity : Albumin Reagent — No specific test data related to reactivity available for this product or its ingredients.
Creatinine Alkaline Reagent — No specific test data related to reactivity available for this product or its ingredients.
Buffer Solution — No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : Albumin Reagent — The product is stable.
Creatinine Alkaline Reagent — The product is stable.
Buffer Solution — The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Albumin Reagent				
sodium azide	LD50 Dermal	Rabbit	20 mg/kg	-
	LD50 Dermal	Rat	50 mg/kg	-
	LD50 Oral	Rat	27 mg/kg	-
Creatinine Alkaline Reagent				
potassium hydroxide	LD50 Oral	Rat	273 mg/kg	-

Conclusion/Summary : Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Section 11. Toxicological information

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Creatinine Alkaline Reagent potassium hydroxide	Eyes - Moderate irritant	Rabbit	-	24 hours 1 milligrams	-
	Skin - Severe irritant	Guinea pig	-	24 hours 50 milligrams	-
	Skin - Severe irritant	Human	-	24 hours 50 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 50 milligrams	-

Conclusion/Summary

Skin :
Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Eyes :
Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Respiratory :
Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Sensitization

Not available.

Conclusion/Summary

Skin :
Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Respiratory :
Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Mutagenicity

Not available.

Conclusion/Summary :
Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Carcinogenicity

Not available.

Conclusion/Summary :
Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Reproductive toxicity

Not available.

Conclusion/Summary :
Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Teratogenicity

Not available.

Conclusion/Summary :
Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure	:	Albumin Reagent	Not available.
		Creatinine Alkaline Reagent	Not available.
		Buffer Solution	Not available.

Potential acute health effects

Eye contact	:	Albumin Reagent	No known significant effects or critical hazards.
		Creatinine Alkaline Reagent	Causes serious eye damage.
		Buffer Solution	No known significant effects or critical hazards.
Inhalation	:	Albumin Reagent	No known significant effects or critical hazards.
		Creatinine Alkaline Reagent	No known significant effects or critical hazards.
		Buffer Solution	No known significant effects or critical hazards.
Skin contact	:	Albumin Reagent	No known significant effects or critical hazards.
		Creatinine Alkaline Reagent	Causes severe burns.
		Buffer Solution	No known significant effects or critical hazards.
Ingestion	:	Albumin Reagent	No known significant effects or critical hazards.
		Creatinine Alkaline Reagent	Harmful if swallowed.
		Buffer Solution	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	Albumin Reagent	No specific data.
		Creatinine Alkaline Reagent	Adverse symptoms may include the following: pain watering redness
		Buffer Solution	No specific data.
Inhalation	:	Albumin Reagent	No specific data.
		Creatinine Alkaline Reagent	No specific data.
		Buffer Solution	No specific data.
Skin contact	:	Albumin Reagent	No specific data.
		Creatinine Alkaline Reagent	Adverse symptoms may include the following: pain or irritation redness blistering may occur
		Buffer Solution	No specific data.
Ingestion	:	Albumin Reagent	No specific data.
		Creatinine Alkaline Reagent	Adverse symptoms may include the following: stomach pains
		Buffer Solution	No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Section 11. Toxicological information

Potential immediate effects :
Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Potential delayed effects :
Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Long term exposure

Potential immediate effects :
Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Potential delayed effects :
Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Potential chronic health effects

Not available.

Conclusion/Summary :
Not available. — Albumin Reagent
Not available. — Creatinine Alkaline Reagent
Not available. — Buffer Solution

General : No known significant effects or critical hazards.

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.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Albumin Reagent	
Oral	131592.1 mg/kg
Creatinine Alkaline Reagent	
Oral	561.8 mg/kg
Buffer Solution	
Oral	174496.6 mg/kg

Interactive effects :
Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Other information :
Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Section 12. Ecological information

Toxicity

Section 12. Ecological information

Product/ingredient name	Result	Species	Exposure
Albumin Reagent			
sodium azide	Acute EC50 0.348 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 4.2 to 6.2 mg/l Fresh water	Daphnia - Daphnia pulex - Larvae	48 hours
	Acute LC50 9000 µg/l Fresh water	Crustaceans - Gammarus lacustris	48 hours
	Acute LC50 0.68 mg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Chronic NOEC 5600 µg/l Marine water	Algae - Macrocystis pyrifera	96 hours
Creatinine Alkaline Reagent			
potassium hydroxide	Acute LC50 80 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours

Conclusion/Summary : Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Persistence and degradability

Conclusion/Summary : Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Creatinine Alkaline Reagent			
potassium hydroxide	0.65 to 0.83	-	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

Mobility : Albumin Reagent — Not available.
Creatinine Alkaline Reagent — Not available.
Buffer Solution — Not available.

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Sodium azide may react with lead or copper plumbing to form highly explosive metal azides.

Section 14. Transport information

DOT Classification

UN number	Albumin Reagent	Not regulated.
	Creatinine Alkaline Reagent	UN1813
	Buffer Solution	Not regulated.
UN proper shipping name	Albumin Reagent	-
	Creatinine Alkaline Reagent	Potassium hydroxide, solid
	Buffer Solution	-
Transport hazard class(es)	Albumin Reagent	-
	Creatinine Alkaline Reagent	8
	Buffer Solution	-
Packing group	Albumin Reagent	-
	Creatinine Alkaline Reagent	II
	Buffer Solution	-
Environmental hazards	Albumin Reagent	No.
	Creatinine Alkaline Reagent	No.
	Buffer Solution	No.
Additional information	Albumin Reagent	-
	Creatinine Alkaline Reagent	-
	Buffer Solution	-

TDG Classification

UN number	Albumin Reagent	Not regulated.
	Creatinine Alkaline Reagent	UN1813
	Buffer Solution	Not regulated.
UN proper shipping name	Albumin Reagent	-
	Creatinine Alkaline Reagent	Potassium hydroxide, solid
	Buffer Solution	-
Transport hazard class(es)	Albumin Reagent	-
	Creatinine Alkaline Reagent	8
	Buffer Solution	-
Packing group	Albumin Reagent	-
	Creatinine Alkaline Reagent	II
	Buffer Solution	-
Environmental hazards	Albumin Reagent	No.
	Creatinine Alkaline Reagent	No.
	Buffer Solution	No.
Additional information	Albumin Reagent	-
	Creatinine Alkaline Reagent	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8).
	Buffer Solution	-

ADR/RID

UN number	Albumin Reagent	Not regulated.
	Creatinine Alkaline Reagent	UN1813
	Buffer Solution	Not regulated.

Section 14. Transport information

UN proper shipping name	Albumin Reagent	-
	Creatinine Alkaline Reagent	Potassium hydroxide, solid
	Buffer Solution	-
Transport hazard class(es)	Albumin Reagent	-
	Creatinine Alkaline Reagent	8
	Buffer Solution	-
Packing group	Albumin Reagent	-
	Creatinine Alkaline Reagent	II
	Buffer Solution	-
Environmental hazards	Albumin Reagent	No.
	Creatinine Alkaline Reagent	No.
	Buffer Solution	No.
Additional information	Albumin Reagent	-
	Creatinine Alkaline Reagent	-
	Buffer Solution	-

IMDG

UN number	Albumin Reagent	Not regulated.
	Creatinine Alkaline Reagent	UN1813
	Buffer Solution	Not regulated.
UN proper shipping name	Albumin Reagent	-
	Creatinine Alkaline Reagent	Potassium hydroxide, solid
	Buffer Solution	-
Transport hazard class(es)	Albumin Reagent	-
	Creatinine Alkaline Reagent	8
	Buffer Solution	-
Packing group	Albumin Reagent	-
	Creatinine Alkaline Reagent	II
	Buffer Solution	-
Environmental hazards	Albumin Reagent	No.
	Creatinine Alkaline Reagent	No.
	Buffer Solution	No.
Additional information	Albumin Reagent	-
	Creatinine Alkaline Reagent	-
	Buffer Solution	-

IATA

UN number	Albumin Reagent	Not regulated.
	Creatinine Alkaline Reagent	UN1813
	Buffer Solution	Not regulated.
UN proper shipping name	Albumin Reagent	-
	Creatinine Alkaline Reagent	Potassium hydroxide, solid
	Buffer Solution	-

Section 14. Transport information

Transport hazard class(es)	Albumin Reagent	-
	Creatinine Alkaline Reagent	8
	Buffer Solution	-
Packing group	Albumin Reagent	-
	Creatinine Alkaline Reagent	II
	Buffer Solution	-
Environmental hazards	Albumin Reagent	No.
	Creatinine Alkaline Reagent	No.
	Buffer Solution	No.
Additional information	Albumin Reagent	-
	Creatinine Alkaline Reagent	-
	Buffer Solution	-

Special precautions for user :	Albumin Reagent	**Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
	Creatinine Alkaline Reagent	**Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
	Buffer Solution	**Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code

Proper shipping name :

Ship type :

Pollution category :

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption**: Not determined

United States inventory (TSCA 8b): Not determined.

Clean Water Act (CWA) 311: edetic acid; potassium hydroxide

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

Section 15. Regulatory information

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ (lbs)	SARA 302 TPQ (gallons)	SARA 304 RQ (lbs)	SARA 304 RQ (gallons)
Albumin Reagent sodium azide	0.18	Yes.	500	-	1000	-

SARA 304 RQ : 1666666.7 lbs / 756666.7 kg

SARA 311/312

Classification : Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Albumin Reagent sodium azide	0.18	No.	No.	No.	Yes.	No.
Creatinine Alkaline Reagent potassium hydroxide	89	No.	No.	No.	Yes.	No.

State regulations

Massachusetts : The following components are listed: SUCROSE DUST; POTASSIUM HYDROXIDE

New York : The following components are listed: Potassium hydroxide

New Jersey : The following components are listed: POTASSIUM HYDROXIDE; CAUSTIC POTASH

Pennsylvania : The following components are listed: .ALPHA.-D-GLUCOPYRANOSIDE, .BETA.-D-FRUCTOFURANOSYL; POTASSIUM HYDROXIDE

International regulations

Chemical Weapons Convention List Schedule I Chemicals :	Albumin Reagent	Not listed
	Creatinine Alkaline Reagent	Not listed
	Buffer Solution	Not listed
Chemical Weapons Convention List Schedule II Chemicals :	Albumin Reagent	Not listed
	Creatinine Alkaline Reagent	Not listed
	Buffer Solution	Not listed
Chemical Weapons Convention List Schedule III Chemicals :	Albumin Reagent	Not listed
	Creatinine Alkaline Reagent	Not listed
	Buffer Solution	Not listed

Section 16. Other information

History

Date of issue/Date of revision : 5/12/2017

Version : 1.05

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient

Section 16. Other information

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

Allergen :