Material Safety Data Sheet

Cyclic GMP CLIA Kit (High-Sensitivity) (Cat No. SKT-210)

Section 1: Product and Company Identification

Product Name	**Cyclic GMP CLIA Kit (High-Sensitivity)**
Catalog Number	**SKT-210**
Company	StressMarq Biosciences Inc. PO Box 55036 Cadboro Bay Victoria BC V8N4G0 CANADA Tel: 250.294.9065 | Fax: 250-294-9025 | info@stressmarq.com www.stressmarq.com

Section 2: Chemical Component Information

List of Components

Plate (SKC-210A)
Cyclic GMP Standard (SKC-210B)
Cyclic GMP CLIA Antibody (SKC-210C)
Cyclic GMP CLIA Conjugate (SKC-210D)
Conjugate Diluent (SKC-210E)
Sample Diluent (SKC-210F)
Plate Primer (SKC-210G)
Acetic Anhydride (SKC-210H)
Triethylamine (SKC-210I)
Wash Buffer Concentrate (SKC-210J)
Substrate Solution A (SKC-210K)
Substrate Solution B (SKC-210L)
Plate Sealer (SKC-210M)

Hazardous Ingredients

Chemical Name	CAS #	Kit Component	Percent	SARA 313
Acetic Anhydride	108-24-7	Acetic Anhydride	> 1.0%	No
Hydrochloric Acid	7647-01-0	Sample Diluent	< 1.0%	No
Triethylamine	121-44-8	Triethylamine	> 1.0%	Yes

Section 3: Health Hazards

Emergency Overview	It is recommended that personnel wear safety goggles, gloves and protective clothing at all times. As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical components of this kit and ensure prompt removal from skin, eye, and clothing. This kit may contain material of human or animal origin and should be considered as potentially capable of transmitting infectious diseases.
Acetic Anhydride	Lachrymator. Harmful if inhaled or swallowed. Causes burns by all exposure routes; eyes, digestive system, respiratory system and skin. Flammable liquid and vapor.
Hydrochloric Acid	Harmful if inhaled, absorbed through skin or swallowed. Irritating to eyes, respiratory system and skin.
Triethylamine	Lachrymator. Harmful if inhaled, absorbed through skin or swallowed. Causes burns by all exposure routes; eyes, digestive system, respiratory system, and skin. May cause central nervous system effects. Extremely flammable liquid and vapor.

Section 4: First Aid Measures

	Acetic Anhydride ($C_4H_6O_3$, > 97.0%)	Sample Diluent (HCl, 0.365%)	Triethylamine ($C_6H_{15}N$, > 99.0%)
Inhalation	If inhaled, remove to fresh air. Seek medical attention.	If inhaled, remove to fresh air. Seek medical attention if respiratory symptoms develop.	If inhaled, remove to fresh air. Seek medical attention.
Skin Contact	Wash thoroughly with soap and water ≥ 15 minutes. Seek medical attention.	Wash thoroughly with soap and water ≥ 15 minutes. If irritation or discomfort develops seek medical attention.	Wash thoroughly with soap and water ≥ 15 minutes. Seek medical attention.
Eye Contact	Get medical attention immediately. Rinse eyes with water ≥ 15 minutes.	Rinse eyes with water extensively. Seek medical attention.	Get medical attention immediately. Rinse eyes with water ≥ 15 minutes.
Ingestion	If swallowed, do NOT induce vomiting. Wash out mouth with water if person is conscious. Seek medical attention.	Get medical attention immediately. If person is conscious, give a cupful of water.	If swallowed, do NOT induce vomiting. Wash out mouth with water if person is conscious. Seek medical attention.

Section 5: Fire Fighting Measures

	Acetic Anhydride	Hydrochloric Acid	Triethylamine
Flash Point	54˚C (129.2˚F)	N/A	-11˚C (12.20˚F)
Explosion Limits	2.9% - 10.3%	N/A	1.2% - 8.0%
Auto-ignition Temp	316˚C (600.8˚F)	N/A	215˚C (419.0˚F)
Flammability	2	N/A	3
Extinguishing Media	Suitable: Dry sand or earth. DO NOT USE WATER.	Suitable: Water spray. Carbon Dioxide, dry chemical powder, or appropriate foam.	Suitable: Water spray, dry chemical or alcohol resistant foam.
Firefighting	Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes and with thermal decomposition products.		
Specific Hazards:	Emits irritating and highly toxic gases. Water reactive. Will react with water and release flammable and /or toxic gas. Vapor may form explosive mixture with air and can travel to ignition source, flashing back.	Emits toxic fumes under fires conditions.	Emits irritating and highly toxic gases. Vapor may cause flash fire, traveling to an ignition source and flash back. Vapors can spread along ground and collect in low or confined areas.

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Section 6: Accidental Release Measures

	Acetic Anhydride	Hydrochloric Acid	Triethylamine
Cleanup Procedures	Wear appropriate protective clothing. Ventilate area. Remove ignition sources. Contain spill to prevent migration. Absorb on sand or vermiculite. Neutralize spill with lime, cover material with dry soda ash and place into closed container for disposal. Vapor suppressing foam may be used to reduce vapors.	Wear appropriate protective clothing. Ventilate area. Contain spill to prevent migration. Absorb on sand or vermiculite, place in sealed container for disposal. Wash area of spill with soap and water.	Wear appropriate protective clothing. Ventilate area. Remove ignition sources. Contain spill to prevent migration. Absorb on sand or vermiculite. Vapor suppressing foam may be used to reduce vapors.
Waste Disposal	Dispose of in accordance with federal, state, and local regulations.		

Section 7: Handling and Storage

Handling	Avoid getting components of this kit on you or in you. Always wear appropriate protective clothing. Always wash hands and other exposed areas thoroughly after using this kit. Do not eat or drink while using this kit. Qualified and experienced professionals should only handle this kit.
Storage	Store according to the package insert instructions.

Section 8: Exposure Controls and Personal Protection

Engineering Controls	No special engineering controls are required when working with this kit. Use with adequate ventilation.
Protective Equipment	Safety glasses are recommended to prevent eye contact. Chemical resistant gloves and a lab coat should be worn to prevent skin contact.

Section 9: Physical and Chemical Properties

Characteristic	Acetic Anhydride	Hydrochloric Acid	Triethylamine
Appearance	Clear, colorless liquid	Clear, colorless liquid	Clear, colorless liquid
Odor	Strong pungent odor	Pungent	Strong fishy odor
Boiling Point	140˚C	100˚C	89-90˚C
Melting Point	Not available	0˚C	-115˚C
Flash Point	N/A	N/A	N/A
Ignition temperature	N/A	N/A	N/A
Density	N/A	N/A	N/A
Vapor Pressure	3.9 mm Hg @68F	Essentially the same as water	57.1 mmHg @25˚C
Solubility in Water	Decomposes	Complete	73.7 g/L
pH	3	0.1	12.4

Section 10: Stability and Reactivity

Stability	Acetic Anhydride: Stable, may decompose if exposed to moist air. Readily hydrolyzed. HCl: This material is stable until the expiration date on the kit if stored as directed. Triethylamine: Stable under normal temperatures and pressures. Oxidizes when exposed to air.
Incompatibles	Acetic Anhydride: Metals, strong oxidizing agents, reducing agents, bases, alcohols, amines, ammonia, nitrates, nitric acid, permanganates, phenols, sodium hydroxide, hydrogen peroxide, chromium trioxide, potassium hydroxide perchloric acid. HCl: Cyanides, sulfides, sulfites, and formaldehyde. Triethylamine: Strong oxidizing agents, strong acids, halogenated hydrocarbons, some metals.
Hazardous Decomposition Products	Acetic Anhydride: Carbon monoxide, carbon dioxide. HCl: Hydrogen chloride gas. Triethylamine: Nitrogen oxides, carbon monoxide, carbon dioxide, amines.

Section 11: Toxicological Information

Route of Exposure	
Skin Contact	May cause skin irritation.
Skin Absorption	May be harmful if absorbed through the skin.
Eye Contact	May cause eye irritation.
Inhalation	May be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.
Ingestion	May be harmful if swallowed.
Symptoms of Exposure	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12: Ecological Information

No data is available.

Section 13: Disposal Considerations

Dispose of waste materials, unused components and contaminated packaging in compliance with country, state, district and local regulations. If unsure of the applicable requirements, contact the authorities for information.

Section 14: Transport Information

U.S. and Canadian Transportation; DOT	
Proper Shipping Name	Chemical Kits
UN Identification Number	3316
Class and Description	9, Miscellaneous
Packing Group	N/A
Hazard Label	Class 9
International Air Transportation (IATA)	
Proper Shipping Name	Chemical Kits
UN Identification Number	3316
Class and Description	9, Miscellaneous
Packing Group	III
Hazard Label	Class 9

Section 15: Regulatory Information

Product related information

The product is not subject to classification according to the sources of literature known to us.

Observe general safety regulations when handling chemicals.

Safety Statements

Avoid release to the environment.

Risk Statements

Harmful if swallowed.

U.S. Regulatory Information

Sara Listed: Yes. Triethylamine.

Section 16: Other Information

Disclaimer: For Research Use Only. Not for diagnostic, therapeutic, or other uses.

Further Information: The information contained in this document is accurate to the best of our knowledge and is provided in good faith. This document is intended only as a guide to the appropriate precautionary handling of the materials contained in this kit by properly trained personnel using this kit. Final determination or suitability of any materials is the sole responsibility of the user. StressMarq Biosciences Inc. shall not be held liable for any damage resulting from use or handling of this product.