SAFETY DATA SHEET

SIEMENS

Atellica™ IM Rubella IgG (Rub G)

SDS # : 10995670

Section 1. Identification

Product identifier : Atellica™ IM Rubella IgG (Rub G)

Product code : 10995670

Product type : Liquid.

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 :

Rub G ReadyPack Lite Reagent	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Rub G ReadyPack Solid Phase	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Rub G Low Calibrator	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.
Rub G Hi Calibrator	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 :

Rub G ReadyPack Lite Reagent	SKIN SENSITIZATION - Category 1
Rub G ReadyPack Solid Phase	SKIN SENSITIZATION - Category 1
Rub G Low Calibrator	Not classified.
Rub G Hi Calibrator	Not classified.

Additional information : Potentially biohazardous material.

Not available.

GHS label elements

Hazard pictograms :



Section 2. Hazards identification

Signal word	:	Rub G ReadyPack Lite Reagent	Warning
		Rub G ReadyPack Solid Phase	Warning
		Rub G Low Calibrator	No signal word.
		Rub G Hi Calibrator	No signal word.
Hazard statements	:	Rub G ReadyPack Lite Reagent	H317 - May cause an allergic skin reaction.
		Rub G ReadyPack Solid Phase	H317 - May cause an allergic skin reaction.
		Rub G Low Calibrator	No known significant effects or critical hazards.
		Rub G Hi Calibrator	No known significant effects or critical hazards.
Precautionary statements			
Prevention	:	Rub G ReadyPack Lite Reagent	P280 - Wear protective gloves/protective clothing/eye protection/face protection. P272 - Contaminated work clothing should not be allowed out of the workplace.
		Rub G ReadyPack Solid Phase	P280 - Wear protective gloves/protective clothing/eye protection/face protection. P272 - Contaminated work clothing should not be allowed out of the workplace.
		Rub G Low Calibrator	Not applicable.
		Rub G Hi Calibrator	Not applicable.
Response	:	Rub G ReadyPack Lite Reagent	P302 + P352 + P363 - IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. P333 + P313 - If skin irritation or rash occurs: Get medical attention.
		Rub G ReadyPack Solid Phase	P302 + P352 + P363 - IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. P333 + P313 - If skin irritation or rash occurs: Get medical attention.
		Rub G Low Calibrator	Not applicable.
		Rub G Hi Calibrator	Not applicable.
Storage	:	Rub G ReadyPack Lite Reagent	Not applicable.
		Rub G ReadyPack Solid Phase	Not applicable.
		Rub G Low Calibrator	Not applicable.
		Rub G Hi Calibrator	Not applicable.
Disposal	:	Rub G ReadyPack Lite Reagent	P501 - Dispose of contents and container in accordance with all local, regional, and national regulations.
		Rub G ReadyPack Solid Phase	P501 - Dispose of contents and container in accordance with all local, regional, and national regulations.
		Rub G Low Calibrator	Not applicable.
		Rub G Hi Calibrator	Not applicable.
Supplemental label elements	:	Rub G ReadyPack Lite Reagent	None known.
		Rub G ReadyPack Solid Phase	None known.
		Rub G Low Calibrator	None known.
		Rub G Hi Calibrator	None known.
Hazards not otherwise classified	:	Rub G ReadyPack Lite Reagent	None known.
		Rub G ReadyPack Solid Phase	None known.
		Rub G Low Calibrator	None known.
		Rub G Hi Calibrator	None known.

Section 3. Composition/information on ingredients

Substance/mixture : Rub G ReadyPack Lite Reagent — Mixture
Rub G ReadyPack Solid Phase — Mixture
Rub G Low Calibrator — Mixture
Rub G Hi Calibrator — Mixture

Ingredient name	%	CAS number
Rub G ReadyPack Lite Reagent		
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	0 - 0.015	55965-84-9
sodium azide	0.002	26628-22-8
Gentamicin, sulfate (salt)	0 - 0.0024	1405-41-0
Rub G ReadyPack Solid Phase		
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	0.015	55965-84-9
Gentamicin, sulfate (salt)	0.0024	1405-41-0

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 : Rub G ReadyPack Lite Reagent — 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. Get medical attention if irritation occurs.

Rub G ReadyPack Solid Phase — 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. Get medical attention if irritation occurs.

Rub G Low Calibrator — 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.

Rub G Hi Calibrator — 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 : Rub G ReadyPack Lite Reagent — Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Get medical attention if adverse health effects persist or are severe. 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. In case of inhalation of

Section 4. First aid measures

			decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
		Rub G ReadyPack Solid Phase	Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Get medical attention if adverse health effects persist or are severe. 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.
		Rub G Low Calibrator	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
		Rub G Hi Calibrator	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	:	Rub G ReadyPack Lite Reagent	Wash with plenty of soap and 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. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
		Rub G ReadyPack Solid Phase	Wash with plenty of soap and 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. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
		Rub G Low Calibrator	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		Rub G Hi Calibrator	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	:	Rub G ReadyPack Lite Reagent	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. Get

Section 4. First aid measures

		medical attention if adverse health effects persist or are severe. 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.
	Rub G ReadyPack Solid Phase	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. Get medical attention if adverse health effects persist or are severe. 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.
	Rub G Low Calibrator	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.
	Rub G Hi Calibrator	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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	:	Rub G ReadyPack Lite Reagent	No known significant effects or critical hazards.
		Rub G ReadyPack Solid Phase	No known significant effects or critical hazards.
		Rub G Low Calibrator	No known significant effects or critical hazards.
		Rub G Hi Calibrator	No known significant effects or critical hazards.

Section 4. First aid measures

Inhalation	:	Rub G ReadyPack Lite Reagent	No known significant effects or critical hazards.
		Rub G ReadyPack Solid Phase	No known significant effects or critical hazards.
		Rub G Low Calibrator	No known significant effects or critical hazards.
		Rub G Hi Calibrator	No known significant effects or critical hazards.
Skin contact	:	Rub G ReadyPack Lite Reagent	May cause an allergic skin reaction.
		Rub G ReadyPack Solid Phase	May cause an allergic skin reaction.
		Rub G Low Calibrator	No known significant effects or critical hazards.
		Rub G Hi Calibrator	No known significant effects or critical hazards.
Ingestion	:	Rub G ReadyPack Lite Reagent	No known significant effects or critical hazards.
		Rub G ReadyPack Solid Phase	No known significant effects or critical hazards.
		Rub G Low Calibrator	No known significant effects or critical hazards.
		Rub G Hi Calibrator	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	:	Rub G ReadyPack Lite Reagent	No specific data.
		Rub G ReadyPack Solid Phase	No specific data.
		Rub G Low Calibrator	No specific data.
		Rub G Hi Calibrator	No specific data.
Inhalation	:	Rub G ReadyPack Lite Reagent	No specific data.
		Rub G ReadyPack Solid Phase	No specific data.
		Rub G Low Calibrator	No specific data.
		Rub G Hi Calibrator	No specific data.
Skin contact	:	Rub G ReadyPack Lite Reagent	Adverse symptoms may include the following: irritation redness
		Rub G ReadyPack Solid Phase	Adverse symptoms may include the following: irritation redness
		Rub G Low Calibrator	No specific data.
		Rub G Hi Calibrator	No specific data.
Ingestion	:	Rub G ReadyPack Lite Reagent	No specific data.
		Rub G ReadyPack Solid Phase	No specific data.
		Rub G Low Calibrator	No specific data.
		Rub G Hi Calibrator	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. 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 : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : No specific data.

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. Avoid breathing vapor or mist. 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 : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. 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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. 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.

Section 7. Handling and storage

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.

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. 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
Rub G ReadyPack Lite 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)

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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

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. Contaminated work clothing should not be allowed out of the workplace. 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: safety glasses with side-shields.

Skin protection

Section 8. Exposure controls/personal 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	: Rub G ReadyPack Lite Reagent	Liquid.
	Rub G ReadyPack Solid Phase	Liquid.
	Rub G Low Calibrator	Liquid.
	Rub G Hi Calibrator	Liquid.
Color	: Rub G ReadyPack Lite Reagent	Colorless.
	Rub G ReadyPack Solid Phase	Colorless to light yellow.
	Rub G Low Calibrator	Amber.
	Rub G Hi Calibrator	Amber.
Odor	: Rub G ReadyPack Lite Reagent	Odorless.
	Rub G ReadyPack Solid Phase	Odorless.
	Rub G Low Calibrator	Bland.
	Rub G Hi Calibrator	Bland.
pH	: Rub G ReadyPack Lite Reagent	8
	Rub G ReadyPack Solid Phase	8
	Rub G Low Calibrator	Not applicable.
	Rub G Hi Calibrator	Not applicable.
Flash point	: Rub G ReadyPack Lite Reagent	Not available.
	Rub G ReadyPack Solid Phase	Not available.
	Rub G Low Calibrator	Not available.
	Rub G Hi Calibrator	Not available.
Flammability (solid, gas)	: Rub G ReadyPack Lite Reagent	Not relevant/applicable due to nature of the product.
	Rub G ReadyPack Solid Phase	Not relevant/applicable due to nature of the product.
	Rub G Low Calibrator	Not relevant/applicable due to nature of the product.
	Rub G Hi Calibrator	Not relevant/applicable due to nature of the product.
Relative density	: Rub G ReadyPack Lite Reagent	1
	Rub G ReadyPack Solid Phase	>1
	Rub G Low Calibrator	1.02
	Rub G Hi Calibrator	1.02
Solubility in water	: Rub G ReadyPack Lite Reagent	Not relevant/applicable due to nature of the product.
	Rub G ReadyPack Solid Phase	Not relevant/applicable due to nature of the product.
	Rub G Low Calibrator	Not relevant/applicable due to nature of the product.
	Rub G Hi Calibrator	Not relevant/applicable due to nature of the product.

Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water	:	Rub G ReadyPack Lite Reagent	Not available.
		Rub G ReadyPack Solid Phase	Not available.
		Rub G Low Calibrator	Not available.
		Rub G Hi Calibrator	Not available.
Auto-ignition temperature	:	Rub G ReadyPack Lite Reagent	Not available.
		Rub G ReadyPack Solid Phase	Not available.
		Rub G Low Calibrator	Not available.
		Rub G Hi Calibrator	Not available.
Viscosity	:	Rub G ReadyPack Lite Reagent	Not available.
		Rub G ReadyPack Solid Phase	Not available.
		Rub G Low Calibrator	Not available.
		Rub G Hi Calibrator	Not available.

Aerosol product

Type of aerosol	:	Rub G ReadyPack Lite Reagent	Not applicable.
		Rub G ReadyPack Solid Phase	Not applicable.
		Rub G Low Calibrator	Not applicable.
		Rub G Hi Calibrator	Not applicable.

Section 10. Stability and reactivity

Reactivity	:	Rub G ReadyPack Lite Reagent	No specific test data related to reactivity available for this product or its ingredients.
		Rub G ReadyPack Solid Phase	No specific test data related to reactivity available for this product or its ingredients.
		Rub G Low Calibrator	No specific test data related to reactivity available for this product or its ingredients.
		Rub G Hi Calibrator	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	Rub G ReadyPack Lite Reagent	The product is stable.
		Rub G ReadyPack Solid Phase	The product is stable.
		Rub G Low Calibrator	The product is stable.
		Rub G Hi Calibrator	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
Rub G ReadyPack Lite Reagent				
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	LD50 Oral	Rat	53 mg/kg	-
sodium azide	LD50 Dermal	Rabbit	20 mg/kg	-
	LD50 Dermal	Rat	50 mg/kg	-
	LD50 Oral	Rat	27 mg/kg	-

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Gentamicin, sulfate (salt)	LD50 Oral	Rat	>5 g/kg	-
Rub G ReadyPack Solid Phase				
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	LD50 Oral	Rat	53 mg/kg	-
Gentamicin, sulfate (salt)	LD50 Oral	Rat	>5 g/kg	-

Conclusion/Summary :

Rub G ReadyPack Lite Reagent	Not available.
Rub G ReadyPack Solid Phase	Not available.
Rub G Low Calibrator	Not available.
Rub G Hi Calibrator	Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Rub G ReadyPack Lite Reagent					
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	Skin - Severe irritant	Human	-	0.01 Percent	-
Rub G ReadyPack Solid Phase					
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	Skin - Severe irritant	Human	-	0.01 Percent	-

Conclusion/Summary

Skin :

Rub G ReadyPack Lite Reagent	Not available.
Rub G ReadyPack Solid Phase	Not available.
Rub G Low Calibrator	Not available.
Rub G Hi Calibrator	Not available.

Eyes :

Rub G ReadyPack Lite Reagent	Not available.
Rub G ReadyPack Solid Phase	Not available.
Rub G Low Calibrator	Not available.
Rub G Hi Calibrator	Not available.

Respiratory :

Rub G ReadyPack Lite Reagent	Not available.
Rub G ReadyPack Solid Phase	Not available.
Rub G Low Calibrator	Not available.
Rub G Hi Calibrator	Not available.

Sensitization

Not available.

Conclusion/Summary

Skin :

Rub G ReadyPack Lite Reagent	Not available.
Rub G ReadyPack Solid Phase	Not available.
Rub G Low Calibrator	Not available.
Rub G Hi Calibrator	Not available.

Respiratory :

Rub G ReadyPack Lite Reagent	Not available.
Rub G ReadyPack Solid Phase	Not available.
Rub G Low Calibrator	Not available.
Rub G Hi Calibrator	Not available.

Mutagenicity

Not available.

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Conclusion/Summary	:	Rub G ReadyPack Lite Reagent	Not available.
		Rub G ReadyPack Solid Phase	Not available.
		Rub G Low Calibrator	Not available.
		Rub G Hi Calibrator	Not available.

Carcinogenicity

Not available.

Conclusion/Summary	:	Rub G ReadyPack Lite Reagent	Not available.
		Rub G ReadyPack Solid Phase	Not available.
		Rub G Low Calibrator	Not available.
		Rub G Hi Calibrator	Not available.

Reproductive toxicity

Not available.

Conclusion/Summary	:	Rub G ReadyPack Lite Reagent	Not available.
		Rub G ReadyPack Solid Phase	Not available.
		Rub G Low Calibrator	Not available.
		Rub G Hi Calibrator	Not available.

Teratogenicity

Not available.

Conclusion/Summary	:	Rub G ReadyPack Lite Reagent	Not available.
		Rub G ReadyPack Solid Phase	Not available.
		Rub G Low Calibrator	Not available.
		Rub G Hi Calibrator	Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure	:	Rub G ReadyPack Lite Reagent	Not available.
		Rub G ReadyPack Solid Phase	Not available.
		Rub G Low Calibrator	Not available.
		Rub G Hi Calibrator	Not available.

Potential acute health effects

Eye contact	:	Rub G ReadyPack Lite Reagent	No known significant effects or critical hazards.
		Rub G ReadyPack Solid Phase	No known significant effects or critical hazards.
		Rub G Low Calibrator	No known significant effects or critical hazards.
		Rub G Hi Calibrator	No known significant effects or critical hazards.
Inhalation	:	Rub G ReadyPack Lite Reagent	No known significant effects or critical hazards.
		Rub G ReadyPack Solid Phase	No known significant effects or critical hazards.
		Rub G Low Calibrator	No known significant effects or critical hazards.
		Rub G Hi Calibrator	No known significant effects or critical hazards.
Skin contact	:	Rub G ReadyPack Lite Reagent	May cause an allergic skin reaction.
		Rub G ReadyPack Solid Phase	May cause an allergic skin reaction.
		Rub G Low Calibrator	No known significant effects or critical hazards.
		Rub G Hi Calibrator	No known significant effects or critical hazards.

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Ingestion	:	Rub G ReadyPack Lite Reagent	No known significant effects or critical hazards.
		Rub G ReadyPack Solid Phase	No known significant effects or critical hazards.
		Rub G Low Calibrator	No known significant effects or critical hazards.
		Rub G Hi Calibrator	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	Rub G ReadyPack Lite Reagent	No specific data.
		Rub G ReadyPack Solid Phase	No specific data.
		Rub G Low Calibrator	No specific data.
		Rub G Hi Calibrator	No specific data.
Inhalation	:	Rub G ReadyPack Lite Reagent	No specific data.
		Rub G ReadyPack Solid Phase	No specific data.
		Rub G Low Calibrator	No specific data.
		Rub G Hi Calibrator	No specific data.
Skin contact	:	Rub G ReadyPack Lite Reagent	Adverse symptoms may include the following: irritation redness
		Rub G ReadyPack Solid Phase	Adverse symptoms may include the following: irritation redness
		Rub G Low Calibrator	No specific data.
		Rub G Hi Calibrator	No specific data.
Ingestion	:	Rub G ReadyPack Lite Reagent	No specific data.
		Rub G ReadyPack Solid Phase	No specific data.
		Rub G Low Calibrator	No specific data.
		Rub G Hi Calibrator	No specific data.

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

Short term exposure

Potential immediate effects	:	Rub G ReadyPack Lite Reagent	Not available.
		Rub G ReadyPack Solid Phase	Not available.
		Rub G Low Calibrator	Not available.
		Rub G Hi Calibrator	Not available.
Potential delayed effects	:	Rub G ReadyPack Lite Reagent	Not available.
		Rub G ReadyPack Solid Phase	Not available.
		Rub G Low Calibrator	Not available.
		Rub G Hi Calibrator	Not available.

Long term exposure

Potential immediate effects	:	Rub G ReadyPack Lite Reagent	Not available.
		Rub G ReadyPack Solid Phase	Not available.
		Rub G Low Calibrator	Not available.
		Rub G Hi Calibrator	Not available.
Potential delayed effects	:	Rub G ReadyPack Lite Reagent	Not available.
		Rub G ReadyPack Solid Phase	Not available.
		Rub G Low Calibrator	Not available.
		Rub G Hi Calibrator	Not available.

Potential chronic health effects

Not available.

Conclusion/Summary	:	Not available.	Rub G ReadyPack Lite Reagent
		Not available.	Rub G ReadyPack Solid Phase
		Not available.	Rub G Low Calibrator
		Not available.	Rub G Hi Calibrator

Section 11. Toxicological information

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

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
Rub G ReadyPack Lite Reagent	
Oral	136892.5 mg/kg

Interactive effects :

Rub G ReadyPack Lite Reagent	Not available.
Rub G ReadyPack Solid Phase	Not available.
Rub G Low Calibrator	Not available.
Rub G Hi Calibrator	Not available.

Other information :

Rub G ReadyPack Lite Reagent	Not available.
Rub G ReadyPack Solid Phase	Not available.
Rub G Low Calibrator	Not available.
Rub G Hi Calibrator	Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Rub G ReadyPack Lite 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
Gentamicin, sulfate (salt)	Acute EC50 21.2 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 >955 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
Rub G ReadyPack Solid Phase			
Gentamicin, sulfate (salt)	Acute EC50 21.2 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 >955 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours

Conclusion/Summary :

Rub G ReadyPack Lite Reagent	Not available.
Rub G ReadyPack Solid Phase	Not available.
Rub G Low Calibrator	Not available.
Rub G Hi Calibrator	Not available.

Persistence and degradability

Conclusion/Summary :

Rub G ReadyPack Lite Reagent	Not available.
Rub G ReadyPack Solid Phase	Not available.
Rub G Low Calibrator	Not available.
Rub G Hi Calibrator	Not available.

Bioaccumulative potential

Section 12. Ecological information

Not available.

Mobility in soil

Soil/water partition coefficient (K_{OC})	:	Rub G ReadyPack Lite Reagent	Not available.
		Rub G ReadyPack Solid Phase	Not available.
		Rub G Low Calibrator	Not available.
		Rub G Hi Calibrator	Not available.
Mobility	:	Rub G ReadyPack Lite Reagent	Not available.
		Rub G ReadyPack Solid Phase	Not available.
		Rub G Low Calibrator	Not available.
		Rub G Hi Calibrator	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.

Section 14. Transport information

DOT Classification

UN number	Rub G ReadyPack Lite Reagent	Not regulated.
	Rub G ReadyPack Solid Phase	Not regulated.
	Rub G Low Calibrator	Not regulated.
	Rub G Hi Calibrator	Not regulated.
UN proper shipping name	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-
Transport hazard class(es)	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-
Packing group	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-
Environmental hazards	Rub G ReadyPack Lite Reagent	No.
	Rub G ReadyPack Solid Phase	No.
	Rub G Low Calibrator	No.
	Rub G Hi Calibrator	No.
Additional information	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-

Section 14. Transport information

TDG Classification

UN number	Rub G ReadyPack Lite Reagent	Not regulated.
	Rub G ReadyPack Solid Phase	Not regulated.
	Rub G Low Calibrator	Not regulated.
	Rub G Hi Calibrator	Not regulated.
UN proper shipping name	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-
Transport hazard class(es)	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-
Packing group	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-
Environmental hazards	Rub G ReadyPack Lite Reagent	No.
	Rub G ReadyPack Solid Phase	No.
	Rub G Low Calibrator	No.
	Rub G Hi Calibrator	No.
Additional information	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-

ADR/RID

UN number	Rub G ReadyPack Lite Reagent	Not regulated.
	Rub G ReadyPack Solid Phase	Not regulated.
	Rub G Low Calibrator	Not regulated.
	Rub G Hi Calibrator	Not regulated.
UN proper shipping name	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-
Transport hazard class(es)	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-
Packing group	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-
Environmental hazards	Rub G ReadyPack Lite Reagent	No.
	Rub G ReadyPack Solid Phase	No.
	Rub G Low Calibrator	No.
	Rub G Hi Calibrator	No.

Section 14. Transport information

Additional information	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-

IMDG

UN number	Rub G ReadyPack Lite Reagent	Not regulated.
	Rub G ReadyPack Solid Phase	Not regulated.
	Rub G Low Calibrator	Not regulated.
	Rub G Hi Calibrator	Not regulated.
UN proper shipping name	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-
Transport hazard class(es)	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-
Packing group	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-
Environmental hazards	Rub G ReadyPack Lite Reagent	No.
	Rub G ReadyPack Solid Phase	No.
	Rub G Low Calibrator	No.
	Rub G Hi Calibrator	No.
Additional information	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-

IATA

UN number	Rub G ReadyPack Lite Reagent	Not regulated.
	Rub G ReadyPack Solid Phase	Not regulated.
	Rub G Low Calibrator	Not regulated.
	Rub G Hi Calibrator	Not regulated.
UN proper shipping name	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-
Transport hazard class(es)	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-
Packing group	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-

Section 14. Transport information

Environmental hazards	Rub G ReadyPack Lite Reagent	No.
	Rub G ReadyPack Solid Phase	No.
	Rub G Low Calibrator	No.
	Rub G Hi Calibrator	No.
Additional information	Rub G ReadyPack Lite Reagent	-
	Rub G ReadyPack Solid Phase	-
	Rub G Low Calibrator	-
	Rub G Hi Calibrator	-

Special precautions for user :	Rub G ReadyPack Lite 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.
	Rub G ReadyPack Solid Phase	**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.
	Rub G Low Calibrator	**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.
	Rub G Hi Calibrator	**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) PAIR**: 1,1'-oxydipropan-2-ol; Nonylphenol, ethoxylated

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

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

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

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Section 15. Regulatory information

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Rub G ReadyPack Lite Reagent sodium azide	0.002	Yes.	500	-	1000	-

SARA 304 RQ : 200000000 lbs / 90800000 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
Rub G ReadyPack Lite Reagent reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	0 - 0.015	No.	No.	No.	Yes.	No.
sodium azide	0.002	No.	No.	No.	Yes.	No.
Rub G ReadyPack Solid Phase reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	0.015	No.	No.	No.	Yes.	No.

State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : None of the components are listed.

Pennsylvania : None of the components are listed.

California Prop. 65

WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Rub G ReadyPack Lite Reagent gentamicin, sulfate (salt)	No.	Yes.	No.	No.
Rub G ReadyPack Solid Phase gentamicin, sulfate (salt)	No.	Yes.	No.	No.

International regulations

Chemical Weapons Convention List Schedule I Chemicals	:	Rub G ReadyPack Lite Reagent	Not listed
		Rub G ReadyPack Solid Phase	Not listed
		Rub G Low Calibrator	Not listed
		Rub G Hi Calibrator	Not listed
Chemical Weapons Convention List Schedule II Chemicals	:	Rub G ReadyPack Lite Reagent	Not listed
		Rub G ReadyPack Solid Phase	Not listed
		Rub G Low Calibrator	Not listed
		Rub G Hi Calibrator	Not listed
Chemical Weapons Convention List Schedule III Chemicals	:	Rub G ReadyPack Lite Reagent	Not listed
		Rub G ReadyPack Solid Phase	Not listed
		Rub G Low Calibrator	Not listed
		Rub G Hi Calibrator	Not listed

Section 16. Other information

History

Date of issue/Date of revision : 8/30/2017

Version : 1

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
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.