

Material Safety Data Sheet

mAb-Glyco-Chip Reagent Pack 2, Agilent Part Number G4240-64027

1. Product and company identification

Product name	: mAb-Glyco-Chip Reagent Pack 2, Agilent Part Number G4240-64027	
Material uses	: Analytical reagent.	
	Glycan Standards	± 0.0000175 mg
	System Conditioning Solution	1 mg
Supplier/Manufacturer	: Agilent Technologies, Inc. 1834 State Highway 71 West Cedar Creek, TX 78612	
Part No. (Chemical Kit)	: G4240-64027	
Part No.	Glycan Standards	5972-3637
	System Conditioning Solution	5972-3640
Validation date	: 10/31/2010	
In case of emergency	: 1-800-894-1304	

2. Hazards identification

Physical state	: Glycan Standards	Solid.
	System Conditioning Solution	Solid. [Powder.]
Odor	: Glycan Standards	Not available.
	System Conditioning Solution	Not available.
Emergency overview		
Signal word	: Glycan Standards	No signal word.
	System Conditioning Solution	No signal word.
Hazard statements	: Glycan Standards	NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.
	System Conditioning Solution	NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.
Precautions	: Glycan Standards	No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing.
	System Conditioning Solution	Keep away from heat, sparks and flame. Prevent dust accumulation. Avoid breathing dust. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use.
Routes of entry	: Glycan Standards	Not available.
	System Conditioning Solution	Not available.
Potential acute health effects		
Inhalation	: Glycan Standards	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
	System Conditioning Solution	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Ingestion	: Glycan Standards	No known significant effects or critical hazards.
	System Conditioning Solution	No known significant effects or critical hazards.
Skin	: Glycan Standards	No known significant effects or critical hazards.
	System Conditioning Solution	No known significant effects or critical hazards.

2. Hazards identification

Eyes	: Glycan Standards System Conditioning Solution	No known significant effects or critical hazards. Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
<u>Potential chronic health effects</u>		
Chronic effects	: Glycan Standards System Conditioning Solution	No known significant effects or critical hazards. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
Carcinogenicity	: Glycan Standards System Conditioning Solution	No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: Glycan Standards System Conditioning Solution	No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: Glycan Standards System Conditioning Solution	No known significant effects or critical hazards. No known significant effects or critical hazards.
Developmental effects	: Glycan Standards System Conditioning Solution	No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: Glycan Standards System Conditioning Solution	No known significant effects or critical hazards. No known significant effects or critical hazards.
Target organs	: Glycan Standards System Conditioning Solution	Not available. Not available.

Over-exposure signs/symptoms

Inhalation	: Glycan Standards System Conditioning Solution	No specific data. Adverse symptoms may include the following: respiratory tract irritation coughing
Ingestion	: Glycan Standards System Conditioning Solution	No specific data. No specific data.
Skin	: Glycan Standards System Conditioning Solution	No specific data. No specific data.
Eyes	: Glycan Standards System Conditioning Solution	No specific data. Adverse symptoms may include the following: irritation redness
Medical conditions aggravated by over-exposure	: Glycan Standards System Conditioning Solution	None known. None known.

See toxicological information (section 11)

3. Composition/information on ingredients

Name	CAS number	%
Glycan Standards Asialo-, agalacto-, biantennary oligosaccharide	84808-02-6	1 - 5

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.

4. First aid measures

Eye contact	: Glycan Standards	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.
	System Conditioning Solution	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.
Skin contact	: Glycan Standards	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
	System Conditioning Solution	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
Inhalation	: Glycan Standards	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.
	System Conditioning Solution	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.
Ingestion	: Glycan Standards	Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.
	System Conditioning Solution	Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.
Protection of first-aiders	: Glycan Standards	No action shall be taken involving any personal risk or without suitable training.
	System Conditioning Solution	No action shall be taken involving any personal risk or without suitable training.
Notes to physician	: Glycan Standards	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.
	System Conditioning Solution	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product	: Glycan Standards System Conditioning Solution	No specific fire or explosion hazard. Fine dust clouds may form explosive mixtures with air.
Extinguishing media		
Suitable	: Glycan Standards System Conditioning Solution	Use an extinguishing agent suitable for the surrounding fire. Use dry chemical powder.
Not suitable	: Glycan Standards System Conditioning Solution	None known. Do not use water jet.
Special exposure hazards	: Glycan Standards System Conditioning Solution	No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Hazardous thermal decomposition products	: Glycan Standards System Conditioning Solution	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide phosphorus oxides
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.	

6. Accidental release measures

Personal precautions	: Glycan Standards System Conditioning Solution	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. Put on appropriate personal protective equipment (see Section 8). 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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment (see Section 8).
Environmental precautions	: Glycan Standards System Conditioning Solution	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). 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).

6. Accidental release measures

Methods for cleaning up	: Glycan Standards	Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
	System Conditioning Solution	Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

7. Handling and storage

Handling	: Glycan Standards	Put on appropriate personal protective equipment (see Section 8). 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.
	System Conditioning Solution	Put on appropriate personal protective equipment (see Section 8). 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. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources.
Storage	: Glycan Standards	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.
	System Conditioning Solution	Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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.

8. Exposure controls/personal protection

Occupational exposure limits

No exposure limit value known.

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

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.

Personal protection

Respiratory

: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands

: 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.

Eyes

: 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 or dusts.

Skin

: 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.

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.

Other protection

: Not available.

9. Physical and chemical properties

Physical state	: Glycan Standards System Conditioning Solution	Solid. Solid. [Powder.]
Flash point	: Glycan Standards System Conditioning Solution	Not available. [Product does not sustain combustion.]
Auto-ignition temperature	: Glycan Standards System Conditioning Solution	Not available. Not available.
Flammable limits	: Glycan Standards System Conditioning Solution	Not available. Not available.
Color	: Glycan Standards System Conditioning Solution	Not available. Not available.
Odor	: Glycan Standards System Conditioning Solution	Not available. Not available.
pH	: Glycan Standards System Conditioning Solution	Not available. Not available.
Boiling/condensation point	: Glycan Standards System Conditioning Solution	Not available. Not available.
Melting/freezing point	: Glycan Standards System Conditioning Solution	Not available. Not available.

9. Physical and chemical properties

Specific gravity	: Glycan Standards	Not available.
	: System Conditioning Solution	Not available.
Vapor pressure	: Glycan Standards	Not available.
	: System Conditioning Solution	Not available.
Vapor density	: Glycan Standards	Not available.
	: System Conditioning Solution	Not available.
Odor threshold	: Glycan Standards	Not available.
	: System Conditioning Solution	Not available.
Evaporation rate	: Glycan Standards	Not available.
	: System Conditioning Solution	Not available.
Viscosity	: Glycan Standards	Not available.
	: System Conditioning Solution	Not available.
Solubility	: Glycan Standards	Partially soluble in the following materials: cold water and hot water.
	: System Conditioning Solution	Partially soluble in the following materials: cold water and hot water.

10. Stability and reactivity

Chemical stability	: Glycan Standards	The product is stable.
	: System Conditioning Solution	The product is stable.
Conditions to avoid	: Glycan Standards	No specific data.
	: System Conditioning Solution	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.
Materials to avoid	: Glycan Standards	No specific data.
	: System Conditioning Solution	Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: Glycan Standards	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	: System Conditioning Solution	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Possibility of hazardous reactions	: Glycan Standards	Under normal conditions of storage and use, hazardous reactions will not occur.
	: System Conditioning Solution	Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

Acute toxicity

Not available.

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitizer

Conclusion/Summary : Not available.

Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity

Not available.

Other adverse symptoms	: Glycan Standards	Not available.
	: System Conditioning Solution	Not available.

12. Ecological information

- Ecotoxicity** : May cause long-term adverse effects in the aquatic environment.
- Partition coefficient: n-octanol/water** : Glycan Standards Not available.
System Conditioning Solution Not available.
- Other adverse effects** : No known significant effects or critical hazards.

13. Disposal considerations

- Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Regulatory information

- TDG / IMDG / IATA** : Not regulated.

15. Regulatory information

- WHMIS (Canada)** : Glycan Standards Not controlled under WHMIS (Canada).
System Conditioning Solution Not controlled under WHMIS (Canada).

Canadian lists

- Canadian NPRI** : None of the components are listed.
- CEPA Toxic substances** : None of the components are listed.
- Canada inventory** : Not determined.

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

16. Other information

- Label requirements** : Glycan Standards NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.
System Conditioning Solution NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.
- Date of issue** : 10/31/2010
- Date of previous issue** : No previous validation.

16. Other information

Version : 1

✔ Indicates information that has changed from previously issued version.

Notice to reader

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