

IMPORTANT NOTICE CONCERNING MATERIAL SAFETY DATA SHEET/SAFETY DATA SHEET INFORMATION

Dear Valued Customer,

Sekisui Diagnostics (formerly Genzyme Diagnostics) is working to update all existing documentation in light of the change to our company name and corporate ownership. This includes the (Material) Safety Data Sheets ((M)SDSs) provided with our products.

The following contact information relative to (M)SDSs has changed effective immediately:

Corporate Headquarters:

Sekisui Diagnostics, LLC
31 New York Avenue
Framingham, MA 01701 USA
www.sekisuidiagnostics.com
Phone: 800-332-1042

Manufacturers:

Sekisui Diagnostics (UK) Limited
50 Gibson Drive
Kings Hill, West Malling
Kent ME19 4AF UK
www.sekisuidiagnostics.com
Phone: 44 (0) 1732 220022

Sekisui Diagnostics, LLC
31 New York Avenue
Framingham, MA 01701 USA
www.sekisuidiagnostics.com
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Emergency Telephone Numbers:

Americas: 1-760-476-3962
Europe, Middle East & Africa: +1-760-476-3961
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Access Code: 333512

Please feel free to use the information provided above to contact us with any questions pertaining to (M)SDSs.



MATERIAL SAFETY DATA SHEET

MP-PGM Ex. Lactobacillus brevis

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: MP-PGM Ex. Lactobacillus brevis

Product Number: 70-6621-01

Synonym(s): Maltose phosphorylase-beta-phosphoglucomutase

Product Use: Enzyme reagent for laboratory use.

Description: Lyophilized powder containing enzymes (protein), carbohydrate gum, buffering salts, polymer, and bovine serum albumin (BSA).

Corporate Headquarters

Genzyme Corporation

500 Kendall Street
Cambridge, MA 02142
USA

Phone: 617-252-7500

Manufacturer/Distributor

Genzyme Diagnostics

50 Gibson Drive
Kings Hill, West Malling
Kent, ME19 4AF
UK

Phone: 44 (0) 1732 220022

Distributor

Genzyme Diagnostics

31 New York Avenue
Framingham, MA 01701-9322
USA

Phone: 800-332-1042

Emergency Telephone Numbers

Genzyme (U.S.): 617-562-4555

CHEMTREC (U.S.): 800-424-9300

CHEMTREC (Outside U.S.): 703-527-3887

2. HAZARDS IDENTIFICATION

Precautionary Statements:

CAUTION! The chemical, physical and toxicological properties of this preparation have not been thoroughly characterized. May be harmful by inhalation and in contact with skin. May be irritating to eyes. This preparation contains arabic gum which may cause allergic skin and respiratory reactions (sensitization). The bovine serum albumin (BSA) in this product is of US origin and meets the current standards for reduction of TSE (Transmissible Spongiform Encephalopathy) risk. Avoid contact with eyes and skin. Do not ingest or inhale. Preparation appearance: white to off-white powder.

Routes of Exposure:

Occupational exposure routes may include eye contact, skin contact and inhalation.

Potential Health Effects:

Inhalation

The arabic gum in this preparation may cause respiratory irritation and sensitization (allergy). Although there is no evidence that the enzyme(s) in this preparation induces specific respiratory hypersensitivity, all proteins are potential respiratory allergens and may result in respiratory sensitization in certain individuals after repeated and/or prolonged inhalation exposure. Respiratory sensitization produces mild to severe symptoms similar to pollen allergy or asthma, including mucous membrane or eye irritation, itching of the skin or eyes, sneezing, nasal or sinus congestion, coughing, and tightness in the chest. These symptoms may develop as late as 12 hours after exposure.

Eye

Eye contact with arabic gum may cause severe irritation.

Skin

Skin contact with arabic gum may cause dry, itchy, irritated areas on the skin, to redness, swelling and blisters.



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Potential Health Effects:

Ingestion	No data available.
Chronic Effects	Exposure to arabic gum may result in asthma and skin lesions.
Target Organs	Unknown.

Regulatory Status:

This preparation is classified as hazardous under U.S. OSHA 29 CFR 1910.1200; E.C. Directive 1999/45/EC; Canadian R.S. 1985, c. H-3; U.K. CHIP 2002 No. 1689; and/or U.N. GHS ST/SG/AC 10/30. Refer to Sec. 15, Regulatory Information, for details regarding hazard classification.

None of the components present in this preparation at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

Potential Environmental Effects:

No data available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS #	EC #	% (wt/wt)
Bovine serum albumin, fraction V	9048-46-8	232-936-2	30 - 40
EC R-Phrases: None	EC Hazard Class: None		
Arabic gum	9000-01-5	232-519-5	15 - 19
EC R-Phrases: R36, R42/43	EC Hazard Class: Xn		
Sodium chloride	7647-14-5	231-598-3	10 - 20
EC R-Phrases: None	EC Hazard Class: None		
Phosphoglycerate mutase	9023-91-0	Not Assigned	10 - 20
EC R-Phrases: None	EC Hazard Class: None		
Maltose phosphorylase	9030-19-7	232-856-8	10 - 20
EC R-Phrases: None	EC Hazard Class: None		
Polyvinylpyrrolidone	9003-39-8	Not Assigned	1 - 10
EC R-Phrases: None	EC Hazard Class: None		
Potassium phosphate dibasic, anhydrous	7758-11-4	231-834-5	1 - 10
EC R-Phrases: None	EC Hazard Class: None		
Potassium phosphate, monobasic	7778-77-0	231-913-4	1 - 10
EC R-Phrases: None	EC Hazard Class: None		

NOTE - Maltose phosphorylase - Enzyme source: Lactobacillus brevis, Enzyme Commission number: 2.4.1.8

NOTE - Phosphoglycerate mutase - Enzyme source: Lactobacillus brevis, Enzyme Commission number: 5.4.2.1

4. FIRST AID MEASURES

Inhalation:

If inhaled, move from exposure area to fresh air. Seek medical attention if breathing becomes difficult or if cough or other symptoms develop.

Eye Contact:

Immediately flush eyes with plenty of tepid water for 15 minutes while separating eyelids with fingers. Remove contact lenses if worn. Obtain medical attention if needed or if symptoms, such as redness or irritation persist.



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Skin Contact:

In case of contact, flush skin with cool water and remove contaminated clothing. Obtain medical attention if needed or if irritation or other symptoms develop.

Ingestion:

In case of ingestion, contact a poison control center or physician for instructions.

5. FIRE FIGHTING MEASURES

Flammable Properties:

Material may burn when exposed to sufficient heat.

Suitable Extinguishing Media:

Use extinguishing media suitable for surrounding fire, such as carbon dioxide, chemical foam, dry chemical or water spray.

Unsuitable Extinguishing Media:

Unknown.

Specific Hazards Arising from the Chemical:

Toxic gases may be generated by combustion, including carbon monoxide (CO), carbon dioxide (CO₂), hydrogen cyanide (HCN), nitrogen oxides (NO_x), phosphorus oxides (PO_x) and potassium oxides (KO_x).

Standard Protective Equipment and Precautions for Firefighters:

Firefighters should wear NIOSH-approved or equivalent Self-Contained Breathing Apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Avoid physical contact with material and avoid generating or inhaling dust. Ensure adequate ventilation. Wear Personal Protective Equipment (PPE) as indicated in Section 8. Wash hands thoroughly after handling.

Environmental Precautions:

No information available.

Methods and Materials for Containment and Clean-Up:

Do not dry sweep powder. Use HEPA-filtered vacuum, if available, otherwise wet mop to clean up a powder spill. Decontaminate the spill site following standard procedures. Dispose of materials in accordance with all applicable federal, state, local and provincial environmental regulations, per Section 13.

7. HANDLING AND STORAGE

Handling:

Follow good laboratory hygiene practices. See Section 8, Engineering Controls. Minimize contact and contamination of personal clothing and skin. Wash hands thoroughly after handling.

Storage:

Store desiccated at -20°C (-4°F). Do not store with incompatible substances; see Section 10.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:

There are no ACGIH, NIOSH, OSHA or country-specific occupational exposure limits currently established for components present in this preparation at concentrations equal to or greater than 1% (0.1% if carcinogen).



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Engineering Controls:

Use local exhaust ventilation equipped with High Efficiency particulate Air (HEPA) filters, if feasible. Facilities storing or using this material should be equipped with an eyewash fountain and a safety shower.

Personal Protective Equipment (PPE):

Respiratory	A respiratory protection program that meets U.S. Federal OSHA 29 CFR 1910.134 and ANSI Z99.2, European Standard CR 529, or other applicable regulatory standards should be followed whenever exposure limits may be exceeded (if applicable) and engineering controls are not feasible, or if insufficient ventilation or workplace conditions warrant the use of respiratory protection.
Eye/Face	Wear appropriate protective chemical safety glasses.
Skin	Wear lab coat or other protective garments. Remove contaminated clothing promptly.
Gloves	Wear chemical resistant protective gloves.
General	Follow company-specific safety procedures.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White to off-white powder	pH:	6 - 7 (in aqueous solution)
Odor:	Not available	Solubility:	Water-soluble
Boiling Point:	Not applicable	Evaporation Rate:	Not applicable
Melting Point:	Not available	Density:	Not available
Freezing Point:	Not applicable	Vapor Pressure:	Not available
		Partition Coefficient (n-octanol/water):	Not available
Flammability/Explosivity Limits in Air, Lower:	Not applicable		
Flammability/Explosivity Limits in Air, Upper:	Not applicable		
Auto-Ignition Temperature:	Not available		
Flash Point:	Not applicable		

10. STABILITY AND REACTIVITY

Chemical Stability:

Stable under ordinary conditions of use and storage. See Section 7.

Conditions to Avoid:

Unknown.

Incompatible Materials:

Unknown.

Hazardous Decomposition Products:

Thermal decomposition may lead to release of irritating gases and vapors.

Possibility of Hazardous Reactions:

Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION



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Acute Effects:

Toxicology Data - Selected LD50s and LC50s

Arabic gum	9000-01-5	Oral LD50 Rat: >16 g/kg
Polyvinylpyrrolidone	9003-39-8	Oral LD50 Rat: 100 g/kg
Potassium phosphate, monobasic	7778-77-0	Dermal LD50 Rabbit: >4640 mg/kg
Sodium chloride	7647-14-5	Inhalation LC50 Rat: >42 g/m ³ /1H; Oral LD50 Rat: 3 g/kg; Dermal LD50 Rabbit: >10 g/kg

Local Effects:

Irritation:

Eye Draize Test, Rabbit, severe, 36 mg/5H (Arabic gum)

Chronic Effects:

No data available.

Carcinogenicity:

No data available.

Mutagenicity:

No data available.

Teratogenicity:

No data available.

Reproductive Effects:

No data available.

Sensitization:

Sensitization to arabic gum has been reported, with symptoms ranging from skin lesions to severe asthmatic attacks.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Ecotoxicity - Freshwater Fish Species Data

Sodium chloride	7647-14-5	96 Hr LC50 Lepomis macrochirus: 9675 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 12946 mg/L [static]; 96 Hr LC50 Pimephales promelas: 7650 mg/L [static]
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Ecotoxicity - Water Flea Data

Sodium chloride	7647-14-5	48 Hr EC50 Daphnia magna: 1000 mg/L
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Persistence and Degradability:

No data available.

Bioaccumulative Potential:

No data available.

Mobility in Environmental Media:

No data available.

13. DISPOSAL CONSIDERATIONS

Methods of Disposal:

Dispose of unused product, spilled material and waste in accordance with all applicable federal, state, local and provincial environmental and hazardous waste regulations.

14. TRANSPORT INFORMATION



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Basic Shipping Description:

Not classified as dangerous goods. Not regulated per IATA and DOT regulations.

15. REGULATORY INFORMATION

US Federal Regulations:

Inventory - United States - Section 8(b) Inventory (TSCA)

Arabic gum	9000-01-5	Present
Bovine serum albumin, fraction V	9048-46-8	XU
Polyvinylpyrrolidone	9003-39-8	XU
Potassium phosphate dibasic, anhydrous	7758-11-4	Present
Potassium phosphate, monobasic	7778-77-0	Present
Sodium chloride	7647-14-5	Present

US State Regulations:

U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

Polyvinylpyrrolidone	9003-39-8	Present
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International Regulations:

Canada - WHMIS - Classifications of Substances

Arabic gum	9000-01-5	D2A
Polyvinylpyrrolidone	9003-39-8	Uncontrolled product according to WHMIS classification criteria
Potassium phosphate dibasic, anhydrous	7758-11-4	Uncontrolled product according to WHMIS classification criteria
Potassium phosphate, monobasic	7778-77-0	Uncontrolled product according to WHMIS classification criteria
Sodium chloride	7647-14-5	Uncontrolled product according to WHMIS classification criteria

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Sodium chloride	7647-14-5	ID Number 270, hazard class 1 - low hazard to waters
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Inventory - Australia - Inventory of Chemical Substances (AICS)

Arabic gum	9000-01-5	Present
Bovine serum albumin, fraction V	9048-46-8	Present
Polyvinylpyrrolidone	9003-39-8	Present
Potassium phosphate dibasic, anhydrous	7758-11-4	Present
Potassium phosphate, monobasic	7778-77-0	Present
Sodium chloride	7647-14-5	Present

Inventory - Canada - Domestic Substances List (DSL)

Arabic gum	9000-01-5	Present
Bovine serum albumin, fraction V	9048-46-8	Present
Polyvinylpyrrolidone	9003-39-8	Present
Potassium phosphate dibasic, anhydrous	7758-11-4	Present
Potassium phosphate, monobasic	7778-77-0	Present
Sodium chloride	7647-14-5	Present

Inventory - Canada - Organisms on the Non-Domestic Substances List (NDSL)

Phosphoglycerate mutase	9023-91-0	IUB #5.4.2.1
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Inventory - China

Arabic gum	9000-01-5	Present
Bovine serum albumin, fraction V	9048-46-8	Present
Polyvinylpyrrolidone	9003-39-8	Present
Potassium phosphate dibasic, anhydrous	7758-11-4	Present
Potassium phosphate, monobasic	7778-77-0	Present
Sodium chloride	7647-14-5	Present

Inventory - European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

Arabic gum	9000-01-5	232-519-5
Bovine serum albumin, fraction V	9048-46-8	232-936-2
Maltose phosphorylase	9030-19-7	232-856-8
Potassium phosphate dibasic, anhydrous	7758-11-4	231-834-5
Potassium phosphate, monobasic	7778-77-0	231-913-4
Sodium chloride	7647-14-5	231-598-3

Inventory - Japan Existing and New Chemical Substances (ENCS)

Polyvinylpyrrolidone	9003-39-8	6-1007; 6-1048
Potassium phosphate dibasic, anhydrous	7758-11-4	1-452
Potassium phosphate, monobasic	7778-77-0	1-452
Sodium chloride	7647-14-5	1-236

Inventory - Korea - Existing and Evaluated Chemical Substances

Arabic gum	9000-01-5	KE-18163
Bovine serum albumin, fraction V	9048-46-8	KE-05-0011
Polyvinylpyrrolidone	9003-39-8	KE-13324
Potassium phosphate dibasic, anhydrous	7758-11-4	KE-12167
Potassium phosphate, monobasic	7778-77-0	KE-28622
Sodium chloride	7647-14-5	KE-31387

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Canadian Hazardous Products:

WHMIS Status Controlled
Classification
 D2A - Other Toxic Effects-VERY TOXIC



European Communities Dangerous Substances/Preparations:

EC Hazard Class Xn - Harmful
Symbols



Risk Phrases
 R42/43 May cause sensitization by inhalation and skin contact.

Safety Phrases
 S22 Do not breathe dust.
 S36/37 Wear suitable protective clothing and gloves.
 S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

16. OTHER INFORMATION

Further Information:

This MSDS has been prepared in accordance with the ANSI Z400.1 format. Every effort has been made to adhere to the hazard criteria and content requirements of the U.S. OSHA Hazard Communication Standard, Canadian Controlled Products Regulation (CPR), UK Chemical Hazard Information and Packaging Regulations, European Communities REACH Regulation, and UN Globally Harmonized System of Classification and Labelling of Chemicals.

MSDS Origination Date: November 06, 2008

Version #: 1

Revision Date: Not Applicable



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Disclaimer:

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