

FSHBP2960

Penicillin/Streptomycin/Glutamine Mixture

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

产品说明:
Product Description: Penicillin/Streptomycin/Glutamine Mixture
 Penicillin/Streptomycin/Glutamine Mixture

Cat No. : BP2960-50

Supplier Fisher Scientific Company
 One Reagent Lane
 Fair Lawn, NJ 07410
 Tel: (201) 796-7100

Emergency Telephone Number CHEMTREC®, Inside the USA: 800-424-9300
 CHEMTREC®, Outside the USA: 001-703-527-3887

E-mail address begel.sdsdesk@thermofisher.com

Recommended Use Laboratory chemicals.
Uses advised against No Information available

SECTION 2. HAZARD IDENTIFICATION

Physical State Liquid	Appearance No information available	Odor No information available
Emergency Overview May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May damage fertility or the unborn child.		

Classification of the substance or mixture

Respiratory Sensitization	Category 1
Skin Sensitization	Category 1
Reproductive Toxicity	Category 1B

Label Elements


Signal Word
Danger

Hazard Statements

H317 - May cause an allergic skin reaction
 H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
 H360 - May damage fertility or the unborn child

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Precautionary Statements

Prevention

- P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P262 - Do not get in eyes, on skin, or on clothing
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P284 - In case of inadequate ventilation wear respiratory protection

Response

- P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P304 + P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
P308 + P313 - IF exposed or concerned: Get medical advice/attention
P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor
P362 + P364 - Take off contaminated clothing and wash it before reuse

Storage

- P403 - Store in a well-ventilated place

Disposal

- P501 - Dispose of contents/ container to an approved waste disposal plant

Physical and Chemical Hazards

None identified.

Health Hazards

May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May damage fertility or the unborn child.

Environmental hazards

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants. .

This product does not contain any known or suspected endocrine disruptors.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight %
Water	7732-18-5	94 - 95
L-Glutamine	56-85-9	2.9
Streptomycin sulfate	3810-74-0	1.0
Penicillin G, sodium salt	69-57-8	0.5 - 1.0
Sodium chloride	7647-14-5	0.9

SECTION 4. FIRST AID MEASURES

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention.

Inhalation

Remove to fresh air. Get medical attention. If not breathing, give artificial respiration.

Ingestion

Do NOT induce vomiting. Get medical attention.

Most important symptoms and effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

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Self-Protection of the First Aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Notes to Physician

Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

Extinguishing media which must not be used for safety reasons

No information available.

Specific Hazards Arising from the Chemical

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Keep product and empty container away from heat and sources of ignition.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Use personal protective equipment as required. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing.

Environmental Precautions

Avoid release to the environment. See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

Refer to protective measures listed in Sections 8 and 13.

SECTION 7. HANDLING AND STORAGE**Handling**

Use only under a chemical fume hood. Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing.

Storage

Keep container tightly closed. Keep in a dry place. Store in freezer. Keep at -20 °C.

Specific Use(s)

Use in laboratories

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control Parameters****Exposure Controls****Engineering Measures**

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Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

Personal protective equipment

Eye Protection	Wear safety glasses with side shields (or goggles) (European standard - EN 166)
Hand Protection	Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Nitrile rubber	See manufacturers	-	EN 374	(minimum requirement)
Neoprene	recommendations			
Natural rubber				
PVC				

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Skin and body protection	Long sleeved clothing
Respiratory Protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly
Large scale/emergency use	Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced Recommended Filter type: Organic gases and vapours filter Type A Brown conforming to EN14387
Small scale/Laboratory use	Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Recommended half mask:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141 When RPE is used a face piece Fit Test should be conducted

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls No information available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical State	Liquid
Odor	No information available
Odor Threshold	No data available
pH	No information available
Melting Point/Range	No data available
Softening Point	No data available
Boiling Point/Range	Not applicable
Flash Point	Not applicable
Evaporation Rate	No data available
Flammability (solid,gas)	Not applicable
Explosion Limits	No data available
	Method - No information available
	Liquid

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Vapor Pressure	No data available	
Vapor Density	No data available	(Air = 1.0)
Specific Gravity / Density	No data available	
Bulk Density	Not applicable	Liquid
Water Solubility	No information available	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Component	log Pow	
L-Glutamine	-4.609	
Autoignition Temperature	No data available	
Decomposition Temperature	No data available	
Viscosity	No data available	
Explosive Properties	No information available	
Oxidizing Properties	No information available	

SECTION 10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Hazardous Reactions	No information available.
Hazardous Polymerization	No information available.
Conditions to Avoid	Incompatible products. Excess heat.
Materials to avoid	Strong oxidizing agents.

Hazardous Decomposition Products Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 11. TOXICOLOGICAL INFORMATION

Product Information No acute toxicity information is available for this product

(a) acute toxicity;

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	-	-	-
L-Glutamine	LD50 = 7500 mg/kg (Rat)		
Streptomycin sulfate	LD50 = 430 mg/kg (Rat)		
Penicillin G, sodium salt	LD50 = 6916 mg/kg (Rat)		
Sodium chloride	LD50 = 3 g/kg (Rat)	LD50 > 10000 mg/kg (Rabbit)	LC50 > 42 mg/L (Rat) 1 h

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization;

Respiratory Category 1
Skin Category 1

May cause sensitization by skin contact

(e) germ cell mutagenicity; No data available

Mutagenic effects have occurred in microorganisms

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(f) carcinogenicity;	No data available There are no known carcinogenic chemicals in this product
(g) reproductive toxicity; Reproductive Effects Developmental Effects Teratogenicity	Category 1B Experiments have shown reproductive toxicity effects on laboratory animals. Substances known to cause developmental toxicity in humans. Teratogenic effects have occurred in experimental animals.
(h) STOT-single exposure;	No data available
(i) STOT-repeated exposure;	No data available
Target Organs	No information available.
(j) aspiration hazard;	No data available
Other Adverse Effects	Tumorigenic effects have been reported in experimental animals.
Symptoms / effects, both acute and delayed	Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects This product contains the following substance(s) which are hazardous for the environment. .

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Sodium chloride	Pimephals prome: LC50: 7650 mg/L/96h	EC50: 1000 mg/L/48h		

Persistence and Degradability No information available

Bioaccumulative Potential No information available

Component	log Pow	Bioconcentration factor (BCF)
L-Glutamine	-4.609	No data available

Mobility in soil No information available

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors
Persistent Organic Pollutant This product does not contain any known or suspected substance
Ozone Depletion Potential This product does not contain any known or suspected substance

SECTION 13. DISPOSAL CONSIDERATIONS

Waste from Residues/Unused Products Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging Dispose of this container to hazardous or special waste collection point.

Other Information Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains.

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SECTION 14. TRANSPORT INFORMATION

Road and Rail Transport Not Regulated

IMDG/IMO Not regulated

IATA Not regulated

Special Precautions for User No special precautions required

SECTION 15. REGULATORY INFORMATION

International Inventories

X = listed, China (IECSC), Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDL), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), Korea (KECL).

Component	The Inventory of Hazardous Chemicals (2015 Edition)	List of dangerous goods GB 12268 - 2012	TCSI	IECSC	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	AICS	KECL
Water	-	-	X	X	231-791-2	X	X	X	X		X	KE-35400
L-Glutamine	-	-	X	X	200-292-1	X	X	X	X	X	X	KE-17780
Streptomycin sulfate	-	-	X	X	223-286-0	X	X	X	-		X	KE-09605
Penicillin G, sodium salt	-	-	X	X	200-710-2	-	X	-	X		-	KE-11722
Sodium chloride	-	-	X	X	231-598-3	X	X	X	X	X	X	KE-31387

National Regulations

SECTION 16. OTHER INFORMATION

Creation Date 20-Jan-2010
Revision Date 14-May-2024
Revision Summary Not applicable.

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Legend

CAS - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

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WEL - Workplace Exposure Limit
ACGIH - American Conference of Governmental Industrial Hygienists
DNEL - Derived No Effect Level
RPE - Respiratory Protective Equipment
LC50 - Lethal Concentration 50%
NOEC - No Observed Effect Concentration
PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average
IARC - International Agency for Research on Cancer
PNEC - Predicted No Effect Concentration
LD50 - Lethal Dose 50%
EC50 - Effective Concentration 50%
POW - Partition coefficient Octanol:Water
vPvB - very Persistent, very Bioaccumulative

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association
ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road
OECD - Organisation for Economic Co-operation and Development
BCF - Bioconcentration factor

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code
MARPOL - International Convention for the Prevention of Pollution from Ships
ATE - Acute Toxicity Estimate
VOC - (Volatile Organic Compound)

Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>
Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet