



**MATERIAL SAFETY
DATA SHEET**

1. IDENTIFICATION OF PRODUCT

This Material Safety Data Sheet applies to:

<u>Product Name:</u> GEM Premier 3000 PAK with iQM (BG/Hct)	<u>Part No.</u> 00024403584 00024307584 00024315084 00024330084 00024345084 00024360084 00024407584
 GEM Premier 3000 PAK with iQM (BG/Hct/Electrolytes)	 00024307587 00024315087 00024330087 00024345087 00024360087 00024407587
 GEM Premier 3000 PAK with iQM (BG/Hct/Electrolytes/Glucose/Lactate)	 00024307589 00024315089 00024330089 00024345089 00024360089

2. COMPOSITION

INGREDIENT NAME	CONCENTRATION PERCENT BY WEIGHT
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Process Control Solution A:

MOPS

3-(N-Morpholino) propane sulfonic acid	1.3%
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CAS No.: 1132-61-2

EINECS No.: 214-478-5

Hazard Classification: Xi (as raw material)

Risk Code: R36/37/38

R36/37/38: irritating to eyes, respiratory system and skin

MOPS sodium salt

1.3%

CAS No.: 71119-22-7

EINECS No.: not applicable

Hazard Classification: data not available

MIT (N-Methylisothiazolone hydrochloride)

0.03%

CAS No.: 2682-20-4

EINECS No.: 220-239-6

Hazard Classification: Xn (as raw material)

Rick Code: R22-26-24/25

R22: harmful if swallowed

R34: causes burns

R43: may cause sensitization by skin contact



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2. COMPOSITION (Continued)

INGREDIENT NAME	CONCENTRATION PERCENT BY WEIGHT
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Process Control Solution B:

MOPS

3-(N-Morpholino) propane sulfonic acid	0.5%
CAS No.: 1132-61-2	
EINECS No.: 214-478-5	
Hazard Classification: Xi (as raw material)	
Risk code: R36-37-38	
R36/37/38: irritating to eyes, respiratory system and skin	

MOPS sodium salt

	1.7%
CAS No.: 71119-22-7	
EINECS No.: not applicable	
Hazard Classification: data not available	

MIT (N-Methylisothiazolone hydrochloride)

	0.03%
CAS No.: 2682-20-4	
EINECS No.: 220-239-6	
Hazard Classification: Xn (as raw material)	
Risk Code: R22-34-43	
R22: harmful if swallowed	
R34: causes burns	
R43: may cause sensitization by skin contact	

Process Control Solution C:

m-Phenylenediamine

	0.2%
CAS No.: 108-45-2	
EINECS No.: 203-584-7	
Hazard Classification: T (as raw material)	
Risk core: R23/24/25-36/37/38-42/43-40	
R23/24/25: toxic by inhalation, in contact with skin and id swallowed	
R36/37/38: irritating to eyes, respiratory system and skin	
R42/43: may cause sensitization by inhalation and skin contact	
R40: possible risk of irreversible effects	

Reference Solution:

Potassium Nitrate

	8.4%
CAS No.: 7757-79-1	
EINECS No.: 231-818-8	
Hazard Classification: O (as raw material)	
Risk Code: R8-22-36/37/38	
R8: contact with combustible material may cause fire	
R22: harmful is swallowed	
R36/37/38: irritating to eyes, respiratory system and skin	



2. COMPOSITION (Continued)

INGREDIENT NAME	CONCENTRATION PERCENT BY WEIGHT
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Reference Solution (Continued):

Brij (Ethoxylated dodecyl alcohol)	3.4%
CAS No.: 9002-92-0	
EINECS No: not applicable	
Hazard Classification: Xi (as raw material)	
Risk Code: R36/37/38	
R36/37/38: irritating to eyes, respiratory system and skin	

Glycerol	52.9%
CAS No.: 56-81-5	
EINECS No: 200-289-5	
Hazard Classification: not applicable (as raw material)	
Risk Code: not applicable	

3. HAZARD IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EYES

Direct eye contact may cause redness and irritation. Avoid contact with eyes.

SKIN

Prolonged or repeated contact may cause skin irritation. Avoid contact with skin.

INGESTION

No information found, but compound should be handled as a potential health hazard.

INHALATION

Inhalation of vapors or mists may irritate respiratory tract.

4. FIRST AID MEASURES

EYES

In case of eye contact, flush eyes with plenty of water for at least 15 minutes. Ensure adequate flushing by separating the eyelids with fingers. Obtain medical attention if irritation persists.

SKIN

Wash exposed area with soap and water. If skin is broken or material enters an open wound, obtain medical attention.

INGESTION

Flush mouth with water, without swallowing. Obtain medical attention or contact the local Poison Control Center.

INHALATION

Remove individual to fresh air. Obtain medical attention.



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5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Use any extinguishing agent, which is suitable for the surrounding fire.

FIRE FIGHTING INSTRUCTIONS

Wear self-contained breathing apparatus and protective clothing that is appropriate for fighting a typical fire involving chemical materials.

6. ACCIDENTAL RELEASE MEASURES

Wear appropriate personal protective equipment as specified in Section 8.

Clean up spills in a manner that does not disperse dust into the air or create aerosols of prepared solutions. Dry spills should be moistened with water or an EPA approved disinfectant. Contain spill and decontaminate the area. Pick up material and dispose in biohazard/sharps container as appropriate.

Do not empty into drains.

7. HANDLING AND STORAGE

HANDLING AND STORAGE PRECAUTIONS

Reference the product labeling for handling and storage instructions.

SPECIAL REQUIREMENTS:

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

WORK/HYGIENIC PRACTICES

Wash hands with soap and water after use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

The product does not contain great amounts of dangerous substances. The threshold limit value (TLV) does not have to be under control for the export to people in the workplace.

EYE/FACE PROTECTION

Safety glasses or splash goggles are recommended.

SKIN PROTECTION

Wear protective (latex/non-latex) gloves and laboratory coat as required to prevent skin contact.

RESPIRATORY PROTECTION

None normally required with adequate ventilation.

AIRBORNE EXPOSURE LIMITS:

-OSHA Permissible Exposure Limit (PEL):

10 mg/m³ total dust, 5 mg/m³ respirable fraction for glycerin (mists)

-ACGIH Threshold Limit Value (TLV):

10 mg/m³ for glycerin mist containing no asbestos and <1% crystalline silica.

OTHER/GENERAL PROTECTION

None normally required.



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9. PHYSICAL AND CHEMICAL PROPERTIES

Process Solutions A, B & C and Reference Solution

Appearance:	liquid
Color:	colorless
Odor:	odorless
Density:	not available
pH:	not available
Vapor Pressure:	not determined
Specific Gravity:	not determined
Solubility (H ₂ O):	complete
Evaporation Rate:	not determined
Viscosity:	not determined
Boiling Point (C°):	not determined
Melting Point (C°):	not applicable
Flash Point:	not applicable
Lower Explosive Limit (%):	not applicable
Upper Explosive Limit (%):	not applicable
Fire and Explosion Hazards:	not applicable

10. STABILITY AND REACTIVITY

STABILITY: Stable under ordinary conditions of use and storage.

INCOMPATIBLE MATERIALS: Strong oxidizer, strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS: May emit carbon oxides, nitrogen oxides and sulfur oxides when heated to decomposition.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

MISCELLANEOUS TOXICOLOGICAL INFORMATION

MOPS 3-(N-Morpholino) propane sulfonic acid: Or1-Qal LD50: >316 mg/kg.

MIT (N-Methylisothiazolone hydrochloride): toxicological properties have not been thoroughly investigated.

m-Phenylenediamine: Or1-Rat LD50: 280 mg/kg; Ipr-Rat LD50: 283 mg/kg; Unr-Rat LD50: 351 mg/kg.

Potassium Nitrate: Or1-Rat LD50: 3750 mg/kg; Or1-Rbt LD50: 1901 mg/kg; terathogenic, mutagenic and reproductivity effects experimental data (NIOSH).

Brij (Ethozylated dodecyl alcohol): Or1-Rat LD50: 8600 mg/kg. Or1-Mus LD50: 3500 mg/kg.

Glycerol: Or1-rat LD50: 12600 mg/kg. Or1-Mus LD50: 4090 mg/kg. Ihl-rat LC50: >570 mg/m³/ 1 Hr.

The health effects noted above are based on the extrapolation of data on the pure product ingredients. To the best of our knowledge, no health effects have been identified for the product mixture under normal conditions of use, although the health effects of the product have not been thoroughly investigated.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None known



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12. ECOLOGICAL INFORMATION

OTHER ENVIRONMENTAL INFORMATION

No ecotoxicological data are available for this product.

Use in accordance with good laboratory practice. Do not waste in the environment.

13. DISPOSAL CONSIDERATIONS

The product waste is classified as non-toxic and harmful.

It is up to the user to classify the waste correctly prior to disposal. Dispose of in accordance with local regulations. Following use with blood, cartridges should be handled as contaminated material and dispose in compliance with federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information.

14. TRANSPORT INFORMATION

ADR (Road) None

IMDG (Sea) None

RID (Rail) None

ICAO/IATA (Air) None

No special precaution is required.

15. REGULATORY INFORMATION

This product is classified and labeled in accordance with Directive 1999/45/EC and following modifications. The health hazard classification has been determined based on composition and hazard data of each ingredient. Physical and health hazard information on the reagent mixture has not been determined. Any physical and health hazard information noted is based on a) evaluation of data of the pure ingredient and b) concentration of each ingredient.

Kit Hazard Classification

- EEC Symbol: Not Applicable

- Risk Code: Not Applicable

- Safety Code: **S24/25-29-36**

S24/25: avoid contact with skin and eyes

S29: do not empty into drains

S36: wear suitable protective clothing

16. OTHER INFORMATION

REFERENCE DOCUMENTATION

Primary references used in the preparation of this document:

1. Product Specification.

NOTE

The information supplied in this Material Safety Data Sheet represents the data and best information available at the date of preparation. It is provided with the aim of allowing proper and safe use, storage, transport and disposal of the product. It is not to be considered as a warranty or specification of product quality. It is related to the materials specifically indicated and does not apply if these are used in combination with other materials or during processes not specifically indicated in the text of this Material Safety Data Sheet.