SAFETY DATA SHEET

SECTION 1 – Product & Company Information

Product Name: PCR Additive Solution, Betaine 5M solution in water
Catalog No.: 40-3032-XX

Company Information: Gene Link, Inc.
E-mail: cust_service@genelink.com
Telephone: 1-914-769-1192; Toll Free in North America 1-800-436-3546
Fax: 1-914-769-9096
Address: 1 Westchester Plaza, Elmsford, NY 10523, USA

Emergency Number: Chemtrec (800) 424-9300

SECTION 2– Composition & Ingredient Information

Component	% Comp.	CAS #	EINECS #	TLV (Units)	CHIP R & S Phrases
Betaine	58-59	107-43-7	203-490-6	Not Established	EC classification (R & S phrases). None Required

SECTION 3– Hazard Identification

Not a hazardous substance or mixture

SECTION 4– First Aid Measures

EYES: Flush with water for 15 minutes. Seek medical advice if irritation persists.
SKIN: Flush with water, then wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. Seek medical attention if irritation persists.
INHALATION: Remove the victim from exposure and move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Keep victim quiet and warm. Seek immediate medical attention.
INGESTION: Drink water and seek immediate medical attention. Avoid alcoholic beverages. Never give anything by mouth to an unconscious person.

SECTION 5– Fire Fighting Measures

Use media suitable to extinguish the supporting or surrounding fire. Wear NIOSH (or equivalent) approved self contained breathing apparatus. For small fires only: use carbon dioxide, dry powder or foam.

SECTION 6– Accidental Release Measures

Person-related safety precautions: Wear appropriate personal protective equipment and clothing including lab coat, safety goggles, gloves and NIOSH approved respirator. Collect in a manner that does not create dust and place in a suitable waste container. Avoid contact of material with skin or eyes. Use adequate ventilation.
Measures for environmental protection: Do not allow to enter sewers/ surface or ground water.
Measures for cleaning/collecting:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.

SECTION 7– Handling & Storage

Wear appropriate personal protective equipment and clothing including lab coat, safety goggles, gloves and NIOSH approved respirator. Avoid contact of material with skin or eyes. Use adequate ventilation. Store at -20°C away from incompatible materials. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Store as labeled.

SECTION 8– Exposure Controls & Personal Protection

Wear appropriate personal protective equipment and clothing including lab coat, safety glasses, gloves and NIOSH approved respirator. A qualified industrial hygienist should evaluate the need for respiratory protection. Use respiratory protection approved by NIOSH (or equivalent) and appropriate to the hazard. Avoid contact of material with skin or eyes. Mechanical ventilation or local exhaust as needed to control exposure to dust, vapors or mists. Access to a safety shower and eye-wash. Pregnant women and women of child-bearing age should limit exposure.
Eyes: Safety glasses are considered minimum protection.
Skin: Protective gloves and clothing are required.

SECTION 9– Physical & Chemical Properties

Boiling point	NA	**Appearance**	Colorless liquid as 5M solution
Melting point	301C (574F)	**Odor**	Essentially odorless
Vapor pressure (mmHg)	0.55 @ 20C	**pH**	NA
Vapor density (Air = 1)	2.7 (air = 1)	**Specific gravity (H2O = 1)**	NA

SECTION 10– Stability & Reactivity Data

Product is stable. Prolonged heating above 150C can cause rapid exothermic decomposition. Hazardous decomposition products are ammonia. Hazardous polymerization will not occur. No stabilizers are needed or present.

SECTION 11– Toxicological Information
EFFECTS OF OVEREXPOSURE:
EYES: Contact may cause irritation. May cause corneal clouding.
SKIN: Contact may cause irritation. May be absorbed through the skin. Symptoms may parallel ingestion.
INHALATION: May cause irritation to mucous membranes and upper respiratory tract. Symptoms may include coughing and shortness of breath.
INGESTION: Chronic ingestion or excessive dosage may cause, headache, dizziness, nausea, vomiting, abdominal pain, and unconsciousness. May affect the reproductive system. May cause damage to liver and denatures proteins. Has caused embryo toxicity and birth defects in animal studies.

SECTION 12– Ecological Information
When released into the soil, this material may biodegrade to a moderate extent. When released into the soil, this material is expected to leach into groundwater. This material has an estimated bioconcentration factor (BCF) of less than 100. This material is not expected to significantly bioaccumulate. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life of less than 1 day.

SECTION 13– Disposal Considerations
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Containers of this material may be hazardous when empty since they retain product residues (vapors, liquids).
Disposal must be made according to official Federal and State regulations.

SECTION 14– MSDS Transport Information
D.O.T.: Not dangerous good
Proper Shipping Name: N.A
Hazard Class: N.A
UN Number: N.A.
Packing Group: N.A.

I.A.T.A.: Not dangerous good
Proper Shipping Name: Not regulated
Hazard Class: N.A.
UN Number: N.A.
Packing Group: N.A.

I.M.O.: Not dangerous good
Proper Shipping Name: Not regulated
Hazard Class: N.A.
UN Number: N.A.
Packing Group: N.A.

SECTION 15– Regulatory Information
RCRA - No applicable information.
SARA 302 - This material does not have an RQ or a TPQ.

SARA 313 - This material is not reportable under Section 313.
California Proposition 65 - No applicable information

Europe

EEC Regulatory

All intentional ingredients are listed on the European EINECS Inventory.

SECTION 15– Other Information

This data sheet is based upon information believed to be reliable. The Company makes no statement or warranty as to the accuracy or completeness of the information contained herein which is offered for your consideration, investigation and verification. Any use of the information contained in this data sheet must be determined by the user to be in accordance with appropriate applicable regulations.

SAFETY DATA SHEET

SECTION 1 – Product & Company Information

Product Name: **PCR Additive Solution, DMSO; dimethyl sulfoxide**
Catalog No.: **40-3031-XX**

Company Information: Gene Link, Inc.
E-mail: **cust_service@genelink.com**
Telephone: **1-914-769-1192; Toll Free in North America 1-800-436-3546**
Fax: **1-914-769-9096**
Address: **1 Westchester Plaza, Elmsford, NY 10523, USA**

Emergency Number: **Chemtrec (800) 424-9300**

SECTION 2– Composition & Ingredient Information

DMSO 100%.

Component	% Comp.	CAS #	EINECS #	TLV (Units)	CHIP R & S Phrases
DMSO	>99	67-68-5	200-664-3	Not Established	EC classification (R & S phrases). None Required

SECTION 3– Hazard Identification

Effects of Over Exposure:

DMSO has shown very few toxic symptoms in humans. The most common are nausea, skin rashes and an unusual garlic-onion-oyster smell on body and breath.
High vapor concentrations may cause headache, dizziness, and sedation.
CHIP: None Required
HCS: None Required

SECTION 4– First Aid Measures

EYES: Flush with water for 15 minutes. Seek medical advice if irritation persists.
SKIN: Flush with water, then wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. Seek medical attention if irritation persists.
INHALATION: Remove the victim from exposure and move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Keep victim quiet and warm. Seek immediate medical attention.
INGESTION: Drink water and seek immediate medical attention. Avoid alcoholic beverages. Never give anything by mouth to an unconscious person.

SECTION 5– Fire Fighting Measures

Use media suitable to extinguish the supporting or surrounding fire. Wear NIOSH (or equivalent) approved self contained breathing apparatus. For small fires only: use carbon dioxide, dry powder or foam.

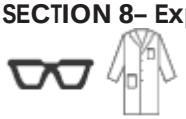
SECTION 6– Accidental Release Measures

Person-related safety precautions: Wear appropriate personal protective equipment and clothing including lab coat, safety goggles, gloves and NIOSH approved respirator. Collect in a manner that does not create dust and place in a suitable waste container. Avoid contact of material with skin or eyes. Use adequate ventilation.
Measures for environmental protection: Do not allow to enter sewers/ surface or ground water.
Measures for cleaning/collecting:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.

SECTION 7– Handling & Storage

Wear appropriate personal protective equipment and clothing including lab coat, safety goggles, gloves and NIOSH approved respirator. Avoid contact of material with skin or eyes. Use adequate ventilation. Store at -20°C away from incompatible materials. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Store as labeled.

SECTION 8– Exposure Controls & Personal Protection



Wear appropriate personal protective equipment and clothing including lab coat, safety glasses, gloves and NIOSH approved respirator. A qualified industrial hygienist should evaluate the need for respiratory protection. Use respiratory protection approved by NIOSH (or equivalent) and appropriate to the hazard. Avoid contact of material with skin or eyes. Mechanical ventilation or local exhaust as needed to control exposure to dust, vapors or mists. Access to a safety shower and eye-wash. Pregnant women and women of child-bearing age should limit exposure.
Eyes: Safety glasses are considered minimum protection.
Skin: Protective gloves and clothing are required.

SECTION 9– Physical & Chemical Properties

Boiling point	189C (372F)	**Appearance**	Colorless liquid
Melting point	18C (64FF)	**Odor**	Essentially odorless
Vapor pressure (mmHg)	0.55 @ 20C	**pH**	8.5 (50/50 in water)
Vapor density (Air = 1)	2.7 (air = 1)	**Specific gravity (H2O = 1)**	1.1 @20C

SECTION 10– Stability & Reactivity Data

Product is stable. Prolonged heating above 150C can cause rapid exothermic decomposition. Hazardous decomposition products are sulfur oxide, formaldehyde. Hazardous polymerization will not occur. No stabilizers are needed or present.

SECTION 11– Toxicological Information

EFFECTS OF OVEREXPOSURE:
EYES: Contact may cause irritation. May cause corneal clouding.
SKIN: Contact may cause irritation. May be absorbed through the skin. Symptoms may parallel ingestion.
INHALATION: May cause irritation to mucous membranes and upper respiratory tract. Symptoms may include coughing and shortness of breath.
INGESTION: Chronic ingestion or excessive dosage may cause, headache, dizziness, nausea, vomiting, abdominal pain, and unconsciousness. May affect the reproductive system. May cause damage to liver and denatures proteins. Has caused embryo toxicity and birth defects in animal studies.

SECTION 12– Ecological Information

When released into the soil, this material may biodegrade to a moderate extent. When released into the soil, this material is expected to leach into groundwater. This material has an estimated bioconcentration factor (BCF) of less than 100. This material is not expected to significantly bioaccumulate. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life of less than 1 day.

SECTION 13– Disposal Considerations

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquids). Disposal must be made according to official Federal and State regulations.

SECTION 14– MSDS Transport Information

D.O.T.
Proper Shipping Name: Combustible liquid. N.O.S (dimethyl Sulfoxide)
Hazard Class: Combustible liquid.
UN Number: N.A.
Packing Group: N.A.

I.A.T.A.
Proper Shipping Name: Not regulated
Hazard Class: N.A.
UN Number: N.A.
Packing Group: N.A.

I.M.O.
Proper Shipping Name: Not regulated
Hazard Class: N.A.

UN Number: N.A.
Packing Group: N.A.

SECTION 15– Regulatory Information

RCRA - No applicable information.
SARA 302 - This material does not have an RQ or a TPQ.
SARA 313 - This material is not reportable under Section 313.
California Proposition 65 - No applicable information

Europe

EEC Regulatory

All intentional ingredients are listed on the European EINECS Inventory.

SECTION 15– Other Information

This data sheet is based upon information believed to be reliable. The Company makes no statement or warranty as to the accuracy or completeness of the information contained herein which is offered for your consideration, investigation and verification. Any use of the information contained in this data sheet must be determined by the user to be in accordance with appropriate applicable regulations.

SAFETY DATA SHEET

SECTION 1 – Product & Company Information

Product Name: PCR Additive Solution, TMAC 100 mM; Tetraethylammonium chloride 100 mM
Catalog No.: 40-3053-XX

Company Information: Gene Link, Inc.
E-mail: cust_service@genelink.com
Telephone: 1-914-769-1192; Toll Free in North America 1-800-436-3546
Fax: 1-914-769-9096
Address: 1 Westchester Plaza, Elmsford, NY 10523, USA

Emergency Number: Chemtrec (800) 424-9300

SECTION 2– Composition & Ingredient Information

Component	% Comp.	CAS #	EINECS #	TLV (Units)	CHIP R & S Phrases
TMAC	1.4 – 1.6	56-34-8	200-267-5	Not Established	EC classification (R & S phrases). None Required

SECTION 3– Hazard Identification

Effects of Over Exposure:

Skin irritation (Category 2), H315
Eye irritation (Category 2A), H319
Short-term (acute) aquatic hazard (Category 3), H402

SECTION 4– First Aid Measures

EYES: Flush with water for 15 minutes. Seek medical advice if irritation persists.
SKIN: Flush with water, then wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. Seek medical attention if irritation persists.
INHALATION: Remove the victim from exposure and move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Keep victim quiet and warm. Seek immediate medical attention.
INGESTION: Drink water and seek immediate medical attention. Avoid alcoholic beverages. Never give anything by mouth to an unconscious person.

SECTION 5– Fire Fighting Measures

Use media suitable to extinguish the supporting or surrounding fire. Wear NIOSH (or equivalent) approved self contained breathing apparatus. For small fires only: use carbon dioxide, dry powder or foam.

SECTION 6– Accidental Release Measures

Person-related safety precautions: Wear appropriate personal protective equipment and clothing including lab coat, safety goggles, gloves and NIOSH approved respirator. Collect in a manner that does not create dust and place in a suitable waste container. Avoid contact of material with skin or eyes. Use adequate ventilation.
Measures for environmental protection: Do not allow to enter sewers/ surface or ground water.
Measures for cleaning/collecting:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.

SECTION 7– Handling & Storage

Wear appropriate personal protective equipment and clothing including lab coat, safety goggles, gloves and NIOSH approved respirator. Avoid contact of material with skin or eyes. Use adequate ventilation. Store at -20°C away from incompatible materials. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Store as labeled.

SECTION 8– Exposure Controls & Personal Protection

Wear appropriate personal protective equipment and clothing including lab coat, safety glasses, gloves and NIOSH approved respirator. A qualified industrial hygienist should evaluate the need for respiratory protection. Use respiratory protection approved by NIOSH (or equivalent) and appropriate to the hazard. Avoid contact of material with skin or eyes. Mechanical ventilation or local exhaust as needed to control exposure to dust, vapors or mists. Access to a safety shower and eye-wash. Pregnant women and women of child-bearing age should limit exposure.
Eyes: Safety glasses are considered minimum protection.
Skin: Protective gloves and clothing are required.

SECTION 9– Physical & Chemical Properties

Boiling point	NA	**Appearance**	Colorless liquid as 100 mM solution
Melting point	360C (680F)	**Odor**	Essentially odorless
Vapor pressure (mmHg)	0.55 @ 20C	**pH**	4 in aqueous solution
Vapor density (Air = 1)	2.7 (air = 1)	**Specific gravity (H2O = 1)**	1.1 @20C

SECTION 10– Stability & Reactivity Data

Product is stable. Prolonged heating above 150C can cause rapid exothermic decomposition. Hazardous decomposition products are ammonia. Hazardous polymerization will not occur. No stabilizers are needed or present.

SECTION 11– Toxicological Information

EFFECTS OF OVEREXPOSURE:
EYES: Contact may cause irritation. May cause corneal clouding.
SKIN: Contact may cause irritation. May be absorbed through the skin. Symptoms may parallel ingestion.
INHALATION: May cause irritation to mucous membranes and upper respiratory tract. Symptoms may include coughing and shortness of breath.
INGESTION: Chronic ingestion or excessive dosage may cause, headache, dizziness, nausea, vomiting, abdominal pain, and unconsciousness. May affect the reproductive system. May cause damage to liver and denatures proteins. Has caused embryo toxicity and birth defects in animal studies.

SECTION 12– Ecological Information

When released into the soil, this material may biodegrade to a moderate extent. When released into the soil, this material is expected to leach into groundwater. This material has an estimated bioconcentration factor (BCF) of less than 100. This material is not expected to significantly bioaccumulate. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life of less than 1 day.

SECTION 13– Disposal Considerations

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquids). Disposal must be made according to official Federal and State regulations.

SECTION 14– MSDS Transport Information

D.O.T.: Not dangerous good
Proper Shipping Name: N.A
Hazard Class: N.A
UN Number: N.A.
Packing Group: N.A.

I.A.T.A.: Not dangerous good
Proper Shipping Name: Not regulated
Hazard Class: N.A.
UN Number: N.A.
Packing Group: N.A.

I.M.O.: Not dangerous good
Proper Shipping Name: Not regulated
Hazard Class: N.A.

UN Number: N.A.
Packing Group: N.A.

SECTION 15– Regulatory Information

RCRA - No applicable information.
SARA 302 - This material does not have an RQ or a TPQ.
SARA 313 - This material is not reportable under Section 313.
California Proposition 65 - No applicable information

Europe

EEC Regulatory

All intentional ingredients are listed on the European EINECS Inventory.

SECTION 15– Other Information

This data sheet is based upon information believed to be reliable. The Company makes no statement or warranty as to the accuracy or completeness of the information contained herein which is offered for your consideration, investigation and verification. Any use of the information contained in this data sheet must be determined by the user to be in accordance with appropriate applicable regulations.

SAFETY STATEMENT

This document is only available in English.

1. Identification of the substance / preparation and company / undertaking

Product Category: PCR Additives; MgCl2; KCl, dNTP

Catalog No: 40-302X-XX & 40-3059-XX

Product Sub-Category: PCR Additives

Company & Company Contact Information

Company Name:	Gene Link, Inc.
E-mail:	cust_service@genelink.com
Telephone:	1-914-769-1192
Fax:	1-914-769-9096
Address:	1 Westchester Plaza Elmsford, NY 10523, USA

2. Composition / information on ingredients

Substance/Preparation: To the present knowledge of Gene Link, Inc., this product does not contain any hazardous ingredients in quantities requiring reporting in this section, in accordance with EU regulations or National regulations.

To Gene Link's knowledge this substance / preparation is not classified as hazardous according to EU, US, or any other known national regulations.

9. Physical and chemical properties (This numbering system is in reference to Section 9 of MSDS format)

Physical State: Aqueous Solutions or dried-lyophilized.
Color: White & Off White

16. Other information (This numbering system is in reference to Section 16 MSDS format):

To Gene Link's best knowledge, the information contained herein is accurate.
However, Gene Link, Inc. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution.

This is not an MSDS. According to EU and US regulations we are not required to supply an MSDS for a product, which is not classified as hazardous.