E101 ELISA Starter Accessory Kit
SDS Cover Sheet

Component Number	Description
E102	TMB One Component Substrate
E104	ELISA Blocking Buffer
E106	ELISA Wash Buffer
E107	ELISA Coating Buffer

P.O. Box 850 | 25043 W. FM 1097 | Montgomery, TX 77356
800.338.9579 **Phone** | 866.597.6105 **Fax** | **bethyl.com**

Safety Data Sheet

Version 4.0
Revision Date 11/07/2019

1. Product and Company Identification

Product Name	TMB One Component Substrate
Catalog Number	E102
Supplier	Bethyl Laboratories, Inc. 25043 West FM 1097 Montgomery, TX 77356
Telephone	800-338-9579
Fax	866-597-6105
Product Use	For Research Use Only, Not for Diagnostic Use.

2. Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Not a hazardous substance or mixture.

GHS Label elements including precautionary statements
Not a hazardous substance or mixture.

3. Composition/Information on Ingredients

Contains no hazardous ingredients at levels requiring disclosure by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

4. First Aid Measures

General If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

If swallowed Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if you feel unwell.

Skin contact Wash skin with water for 15 minutes.

Eye exposure Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing.

If inhaled Remove to fresh air and keep at rest in a comfortable position for breathing.

Most important symptoms and effects, both acute and delayed

Symptoms/injuries:	Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/injuries after inhalation:	May cause respiratory irritation.
Symptoms/injuries after skin contact:	May cause skin irritation.
Symptoms/injuries after eye contact:	May cause slight temporary irritation.
Symptoms/injuries after ingestion:	May cause gastrointestinal irritation.

5. Fire-Fighting Measures

Extinguishing Media
Use Foam. Carbon dioxide. Dry powder. Water spray. Sand.

Special hazards arising from the substance or mixture
No dangerous reactions known under normal conditions of use.

Special protective equipment for firefighters
Wear self-contained breathing apparatus and protective suit.

6. Accidental Release Measures

Personal precautions
Evacuate area. Ventilate area. Keep upwind. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

Environmental precautions
Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

Methods and materials for containment and cleaning up
Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). Wash spill area thoroughly with plenty of soap and water.

7. Handling and Storage

Precautions for safe handling
Do not handle until all safety precautions have been read and understood. Use appropriate personal protection equipment (PPE). Keep away from sources of ignition - No smoking. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Conditions of safe storage
Keep the container tightly closed. Store in a dry, cool and well-ventilated place. Store away from light. Avoid elevated temperatures. Recommended storage temperature is 2 - 8°C.

8. Exposure Controls/Personal Protection

Appropriate engineering controls
Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Hand protection
Chemical goggles or safety glasses.

Skin protection
Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl.

Skin and Body protection
Wear suitable protective clothing. Wear long sleeves.

Respiratory protection
Where excessive vapour, mist, or dust may result, use NIOSH approved respiratory protection equipment.

9. Physical and Chemical Properties

Physical state:	Liquid
Appearance:	Colorless to pale yellow liquid.
Color:	Clear. light yellow.
Odor:	No specific data.
Odor Threshold:	No data available
pH:	3.3 - 3.8
Relative evaporation rate (butylacetate=1):	No data available
Melting point:	No data available
Freezing point:	No data available
Boiling point:	No data available
Flash point:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Flammability (solid, gas):	Not Flammable
Vapour pressure:	No data available
Relative vapour density at 20 °C:	No data available
Relative density:	1.01 (H_2O = 1.0)
Solubility:	Water: 100 %
Log Pow:	No data available
Log Kow:	No data available
Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available
Explosive properties:	Product is not explosive.
Oxidising properties:	Not an Oxidizer.
Explosive limits:	No data available

10. Stability and Reactivity

Reactivity
No dangerous reactions known under normal conditions of use.

Chemical stability
Product is stable under normal conditions of storage and use.

Possibility of hazardous reactions
None known.

Conditions to avoid
Light. Elevated temperatures. Moisture.

Incompatible materials
Strong oxidizing agents. Metals.

Hazardous decomposition products
Thermal decomposition generates: Carbon oxides (CO, CO_2). Nitrogen oxides.

11. Toxicological Information

Acute toxicity	Not classified
Skin corrosion/irritation	Not classified pH: 3.3 - 3.8
Serious eye damage/eye irritation	Not classified pH: 3.3 - 3.8
Respiratory or skin sensitization	Not classified

Germ Cell Mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity single exposure	Not classified
Specific target organ toxicity repeated exposure	Not classified
Aspiration hazard	Not classified
Symptoms/injuries after inhalation	May cause respiratory irritation.
Symptoms/injuries after skin contact	May cause skin irritation.
Symptoms/injuries after eye contact	May cause slight temporary irritation.
Symptoms/injuries after ingestion	May cause gastrointestinal irritation.

12. Ecological Information

Toxicity	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
Other adverse effects	No data available

13. Disposal Considerations

Waste treatment methods: Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

14. Transportation Information

No special transport regulations

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

15. Regulatory Information

US Federal regulations

All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory All the constituents of this preparation are registered in the EINECS inventory or in the ELINCS list

CANADA

No additional information available

California Proposition 65

This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

16. Other Information

For research use only.

Read instructions for use before using the product. Observe the general safety regulations when handling chemicals.

The above information is believed to be correct but does not purport to be all-inclusive and is intended to be used only as a guide. Bethyl Laboratories, Inc. shall not be liable or responsible in any way for use of either this information or the material supplied. Disposal of hazardous material may be subject to federal, state, or local laws or regulations.

Prepared by: Safety Department
Bethyl Laboratories, Inc.
1 -800-338-9579

Safety Data Sheet

Version 5.0
Revision Date 11/07/2019

1. Product and Company Identification

Product Name	ELISA Blocking Buffer
Catalog Number	E104
Supplier	Bethyl Laboratories, Inc. 25043 West FM 1097 Montgomery, TX 77356
Telephone	800-338-9579
Fax	866-597-6105
Product Use	For Research Use Only, Not for Diagnostic Use.

2. Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Skin irritation (Category 2), H315
Eye irritation (Category 2A), H319
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

GHS Label elements

Pictogram

Signal word Warning

Hazard Statements

H315	Causes skin irritation
H319	Cause serious eye irritation
H335	May cause respiratory irritation.

Precautionary Statement(s)

P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves, eye protection/face protection.
P302 + P352	If on SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/ physician if you feel unwell
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed. \
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

3. Composition/Information on Ingredients

Hazardous Ingredients

Chemical name	Classification	Concentration
Tris (hydroxymethyl) aminomethane CAS no. 77-86-1 EC No. 201-064-4	Skin Irritation 2, H315; Eye Irritation 2, H319	>=10 – <30 %

4. First Aid Measures

General Advice If symptoms persist, call a physician.

If swallowed Rinse mouth with water provided person is conscious. Consult a physician.

Skin contact Wash off with soap and plenty of water. Consult a physician.

Eye exposure Rinse thoroughly with plenty of water for at least 15 minutes. Consult a physician.

If inhaled If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

5. Fire-Fighting Measures

Extinguishing Media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture
Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas, Sodium oxides

Special protective equipment for firefighters
Wear self-contained breathing apparatus if necessary.

6. Accidental Release Measures

Personal precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions
Do not let product enter drains.

Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. Handling and Storage

Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed.

Conditions of safe storage
Keep container tightly closed and upright to prevent leakage.

Recommended storage temperature is 2 - 8°C.

8. Exposure Controls/Personal Protection

Contains no substance with occupational exposure limit values

Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye protection
Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body protection
Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
Do not let product enter drains.

9. Physical and Chemical Properties

Appearance	
Form	powder
Safety Data	
pH	no data available
Melting point/ Freezing point	no data available
Boiling point	no data available
Flash point	no data available
Ignition point	no data available
Auto-ignition Temperature	no data available

Lower explosion limit	no data available
Upper explosion limit	no data available
Vapor pressure	no data available
Density	no data available
Water Solubility	no data available
Partition coefficient n-octanoic/water	no data available
Relative vapor density	no data available
Evaporation rate	no data available

10. Stability and Reactivity

Reactivity
No data available

Chemical stability
Product is stable under normal conditions of storage and use.

Possibility of hazardous reactions
No data available

Conditions to avoid
No data available

Incompatible materials
Strong oxidizing agents, Strong acids

Hazardous decomposition products
No data available

11. Toxicological Information

Acute toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitization	No data available
Germ Cell Mutagenicity	No data available
Carcinogenicity	Not listed by IARC, ACGIH, NTP, OSHA
Reproductive toxicity	No data available
Specific target organ toxicity single exposure	No data available
Specific target organ toxicity repeated exposure	No data available
Aspiration hazard	No data available

12. Ecological Information

Toxicity	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
PBT and vPvb assessment	No data available
Other adverse effects	No data available

13. Disposal Considerations

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. Transportation Information

No special transport regulations

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

15. Regulatory Information

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
No SARA Hazards

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Sodium chloride	CAS-No. 7647-14-5
Tris (hydroxymethyl) aminomethane	CAS-No. 77-86-1
Serum Albumin	CAS-No. 9048-46-8

New Jersey Right To Know Components

Sodium chloride	CAS-No. 7647-14-5
Tris (hydroxymethyl) aminomethane	CAS-No. 77-86-1
Serum Albumin	CAS-No. 9048-46-8

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other Information

For research use only.

Read instructions for use before using the product. Observe the general safety regulations when handling chemicals.

The above information is believed to be correct but does not purport to be all-inclusive and is intended to be used only as a guide. Bethyl Laboratories, Inc. shall not be liable or responsible in any way for use of either this information or the material supplied. Disposal of hazardous material may be subject to federal, state, or local laws or regulations.

Prepared by: Safety Department
Bethyl Laboratories, Inc.
1 -800-338-9579

Safety Data Sheet

Version 5.0
Revision Date 11/07/2019

1. Product and Company Identification

Product Name	ELISA Wash Solution
Catalog Number	E106
Supplier	Bethyl Laboratories, Inc. 25043 West FM 1097 Montgomery, TX 77356
Telephone	800-338-9579
Fax	866-597-6105
Product Use	For Research Use Only, Not for Diagnostic Use.

2. Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Not a hazardous substance or mixture.

GHS Label elements including precautionary statements
Not a hazardous substance or mixture.

3. Composition/Information on Ingredients

No components need to be disclosed according to the applicable regulations.

4. First Aid Measures

If swallowed	Rinse mouth with water provided person is conscious.
Skin contact	Wash skin with soap and plenty of water.
Eye exposure	Flush eyes with water as a precaution.
If inhaled	Move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

5. Fire-Fighting Measures

Extinguishing Media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture
Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas, Potassium oxides, Sodium oxides

Special protective equipment for firefighters
Wear self-contained breathing apparatus if necessary.

6. Accidental Release Measures

Personal precautions
Avoid dust formation. Avoid breathing vapours, mist or gas.

Environmental precautions
No special environmental precautions required.

Methods and materials for containment and cleaning up
Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. Handling and Storage

Precautions for safe handling
Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions of safe storage
Keep container tightly closed in a dry and well-ventilated place.

After reconstitution, recommended storage temperature is 2 - 8°C.

8. Exposure Controls/Personal Protection

Contains no substance with occupational exposure limit values

Appropriate engineering controls
General industrial hygiene practice.

Personal protective equipment

Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Respiratory protection

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body protection
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
No special environmental precautions required.

9. Physical and Chemical Properties

Appearance	
Form	powder
Safety Data	
pH	no data available
Melting point/ Freezing point	no data available
Boiling point	no data available
Flash point	no data available
Ignition point	no data available
Auto-ignition Temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapor pressure	no data available
Density	no data available
Water Solubility	no data available
Partition coefficient n-octanoic/water	no data available
Relative vapor density	no data available
Evaporation rate	no data available

10. Stability and Reactivity

Reactivity
No data available

Chemical stability
Product is stable under normal conditions of storage and use.

Possibility of hazardous reactions
No data available

Conditions to avoid
No data available

Incompatible materials
Bases, Oxidizing agents, Strong oxidizing agents, Strong acids

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride gas, Potassium oxides, Sodium oxides Other decomposition products - No data available

11. Toxicological Information

Acute toxicity No data available

Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitization	No data available
Germ Cell Mutagenicity	No data available
Carcinogenicity	Not listed by IARC, ACGIH, NTP, OSHA
Reproductive toxicity	No data available
Specific target organ toxicity single exposure	No data available
Specific target organ toxicity repeated exposure	No data available
Aspiration hazard	No data available

12. Ecological Information

Toxicity	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
PBT and vPvb assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Other adverse effects	No data available

13. Disposal Considerations

Offer surplus and non-recyclable solutions to a licensed disposal company.

14. Transportation Information

No special transport regulations

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

15. Regulatory Information

SARA 302 Components
This material does not contain any components with a section 302 EHS TPQ.

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
No SARA Hazards

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Sodium chloride	CAS-No. 7647-14-5
Tris (hydroxymethyl) aminomethane	CAS-No. 77-86-1
Tween 20	CAS-No. 9005-64-5
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	CAS-No. 1185-53-1

New Jersey Right To Know Components

Sodium chloride	CAS-No. 7647-14-5
Tris (hydroxymethyl) aminomethane	CAS-No. 77-86-1
Tween 20	CAS-No. 9005-64-5
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	CAS-No. 1185-53-1
Potassium chloride	CAS-No. 7447-40-7

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other Information

For research use only.

Read instructions for use before using the product. Observe the general safety regulations when handling chemicals.

The above information is believed to be correct but does not purport to be all-inclusive and is intended to be used only as a guide. Bethyl Laboratories, Inc. shall not be liable or responsible in any way for use of either this information or the material supplied. Disposal of hazardous material may be subject to federal, state, or local laws or regulations.

Prepared by: Safety Department
Bethyl Laboratories, Inc.
1 -800-338-9579

Safety Data Sheet

Version 4.0
Revision Date 11/07/2019

1. Product and Company Identification

Product Name	ELISA Coating Buffer
Catalog Number	E107
Supplier	Bethyl Laboratories, Inc. 25043 West FM 1097 Montgomery, TX 77356
Telephone	800-338-9579
Fax	866-597-6105
Product Use	For Research Use Only, Not for Diagnostic Use.

2. Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Eye irritation (Category 2A), H319

GHS Label elements

Pictogram

Signal word Warning

Hazard Statements

H319	Cause serious eye irritation

Precautionary Statement(s)

P264	Wash skin thoroughly after handling.
P280	Wear protective gloves, eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.

3. Composition/Information on Ingredients

Hazardous Ingredients

Chemical name		Classification	Concentration
Sodium carbonate			
CAS no. EC No.	497-19-8 207-838-8	Eye Irritation 2; H319	>= 50 - < 70%

4. First Aid Measures

General Advice Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled Move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin contact Wash skin with soap and plenty of water.

Eye exposure Rinse thoroughly with copious amounts of water for at least 15 minutes. Consult a physician

If swallowed Rinse mouth with water provided person is conscious. Consult a physician.

5. Fire-Fighting Measures

Suitable Extinguishing Media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture
Carbon oxides, sodium oxides

Special protective equipment for firefighters
Wear self-contained breathing apparatus if necessary.

6. Accidental Release Measures

Personal precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.
For personal protection see section 8.

Environmental precautions
Do not let product enter drains.

Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. Handling and Storage

Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.
Provide appropriate exhaust ventilation at places where dust is formed.

Conditions of safe storage
Keep container tightly closed and upright to prevent leakage.

After reconstitution, recommended storage temperature is 2 - 8°C.

8. Exposure Controls/Personal Protection

Components with workplace control parameters
Contains no substance with occupational exposure limit values

Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection
Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail
sales@kcl.de, test method: EN374
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection
Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
Do not let product enter drains.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

a) Appearance	Form: solid
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	No date available
g) Flash point	()Not applicable
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available

m) Relative density	No data available
n) Water solubility	No data available
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

9.2 Other safety information

No data available

10. Stability and Reactivity

Reactivity

No data available

Chemical stability

Product is stable under normal conditions of storage and use.

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

Strong acids

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sodium oxides
Other decomposition products - No data available
In the event of fire: see section 5 No data available

11. Toxicological Information

Acute toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitization	No data available
Germ Cell Mutagenicity	No data available
Carcinogenicity	Not listed by IARC, ACGIH, NTP, OSHA
Reproductive toxicity	No data available
Specific target organ toxicity single exposure	No data available
Specific target organ toxicity repeated exposure	No data available
Aspiration hazard	No data available

12. Ecological Information

Toxicity	Not determined
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
PBT and vPvb assessment	No data available
Other adverse effects	No data available

13. Disposal Considerations

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. Transportation Information

No special transport regulations

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

15. Regulatory Information

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

	CAS-No.
Sodium hydrogencarbonate	144-55-8
Sodium carbonate	497-19-8

New Jersey Right To Know Components

	CAS-No.
Sodium hydrogencarbonate	144-55-8
Sodium carbonate	497-19-8

16. Other Information

For research use only.

Read instructions for use before using the product. Observe the general safety regulations when handling chemicals.

The above information is believed to be correct but does not purport to be all-inclusive and is intended to be used only as a guide. Bethyl Laboratories, Inc. shall not be liable or responsible in any way for use of either this information or the material supplied. Disposal of hazardous material may be subject to federal, state, or local laws or regulations.

Prepared by: Safety Department
Bethyl Laboratories, Inc.
1 -800-338-9579

Safety Data Sheet

Version 4.0
Revision Date 11/07/2019

1. Product and Company Identification

Product Name	TMB One Component Substrate
Catalog Number	E102
Supplier	Bethyl Laboratories, Inc. 25043 West FM 1097 Montgomery, TX 77356
Telephone	800-338-9579
Fax	866-597-6105
Product Use	For Research Use Only, Not for Diagnostic Use.

2. Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Not a hazardous substance or mixture.

GHS Label elements including precautionary statements
Not a hazardous substance or mixture.

3. Composition/Information on Ingredients

Contains no hazardous ingredients at levels requiring disclosure by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

4. First Aid Measures

General If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

If swallowed Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if you feel unwell.

Skin contact Wash skin with water for 15 minutes.

Eye exposure Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing.

If inhaled Remove to fresh air and keep at rest in a comfortable position for breathing.

Most important symptoms and effects, both acute and delayed

Symptoms/injuries:	Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/injuries after inhalation:	May cause respiratory irritation.
Symptoms/injuries after skin contact:	May cause skin irritation.
Symptoms/injuries after eye contact:	May cause slight temporary irritation.
Symptoms/injuries after ingestion:	May cause gastrointestinal irritation.

5. Fire-Fighting Measures

Extinguishing Media
Use Foam. Carbon dioxide. Dry powder. Water spray. Sand.

Special hazards arising from the substance or mixture
No dangerous reactions known under normal conditions of use.

Special protective equipment for firefighters
Wear self-contained breathing apparatus and protective suit.

6. Accidental Release Measures

Personal precautions
Evacuate area. Ventilate area. Keep upwind. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

Environmental precautions
Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

Methods and materials for containment and cleaning up
Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). Wash spill area thoroughly with plenty of soap and water.

7. Handling and Storage

Precautions for safe handling
Do not handle until all safety precautions have been read and understood. Use appropriate personal protection equipment (PPE). Keep away from sources of ignition - No smoking. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Conditions of safe storage
Keep the container tightly closed. Store in a dry, cool and well-ventilated place. Store away from light. Avoid elevated temperatures. Recommended storage temperature is 2 - 8°C.

8. Exposure Controls/Personal Protection

Appropriate engineering controls
Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Hand protection
Chemical goggles or safety glasses.

Skin protection
Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl.

Skin and Body protection
Wear suitable protective clothing. Wear long sleeves.

Respiratory protection
Where excessive vapour, mist, or dust may result, use NIOSH approved respiratory protection equipment.

9. Physical and Chemical Properties

Physical state:	Liquid
Appearance:	Colorless to pale yellow liquid.
Color:	Clear. light yellow.
Odor:	No specific data.
Odor Threshold:	No data available
pH:	3.3 - 3.8
Relative evaporation rate (butylacetate=1):	No data available
Melting point:	No data available
Freezing point:	No data available
Boiling point:	No data available
Flash point:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Flammability (solid, gas):	Not Flammable
Vapour pressure:	No data available
Relative vapour density at 20 °C:	No data available
Relative density:	1.01 (H_2O = 1.0)
Solubility:	Water: 100 %
Log Pow:	No data available
Log Kow:	No data available
Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available
Explosive properties:	Product is not explosive.
Oxidising properties:	Not an Oxidizer.
Explosive limits:	No data available

10. Stability and Reactivity

Reactivity
No dangerous reactions known under normal conditions of use.

Chemical stability
Product is stable under normal conditions of storage and use.

Possibility of hazardous reactions
None known.

Conditions to avoid
Light. Elevated temperatures. Moisture.

Incompatible materials
Strong oxidizing agents. Metals.

Hazardous decomposition products
Thermal decomposition generates: Carbon oxides (CO, CO_2). Nitrogen oxides.

11. Toxicological Information

Acute toxicity	Not classified
Skin corrosion/irritation	Not classified pH: 3.3 - 3.8
Serious eye damage/eye irritation	Not classified pH: 3.3 - 3.8
Respiratory or skin sensitization	Not classified

Germ Cell Mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity single exposure	Not classified
Specific target organ toxicity repeated exposure	Not classified
Aspiration hazard	Not classified
Symptoms/injuries after inhalation	May cause respiratory irritation.
Symptoms/injuries after skin contact	May cause skin irritation.
Symptoms/injuries after eye contact	May cause slight temporary irritation.
Symptoms/injuries after ingestion	May cause gastrointestinal irritation.

12. Ecological Information

Toxicity	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
Other adverse effects	No data available

13. Disposal Considerations

Waste treatment methods: Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

14. Transportation Information

No special transport regulations

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

15. Regulatory Information

US Federal regulations

All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory All the constituents of this preparation are registered in the EINECS inventory or in the ELINCS list

CANADA

No additional information available

California Proposition 65

This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

16. Other Information

For research use only.

Read instructions for use before using the product. Observe the general safety regulations when handling chemicals.

The above information is believed to be correct but does not purport to be all-inclusive and is intended to be used only as a guide. Bethyl Laboratories, Inc. shall not be liable or responsible in any way for use of either this information or the material supplied. Disposal of hazardous material may be subject to federal, state, or local laws or regulations.

Prepared by: Safety Department
Bethyl Laboratories, Inc.
1 -800-338-9579

Safety Data Sheet

Version 5.0
Revision Date 11/07/2019

1. Product and Company Identification

Product Name	ELISA Blocking Buffer
Catalog Number	E104
Supplier	Bethyl Laboratories, Inc. 25043 West FM 1097 Montgomery, TX 77356
Telephone	800-338-9579
Fax	866-597-6105
Product Use	For Research Use Only, Not for Diagnostic Use.

2. Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Skin irritation (Category 2), H315
Eye irritation (Category 2A), H319
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

GHS Label elements

Pictogram

Signal word Warning

Hazard Statements

H315	Causes skin irritation
H319	Cause serious eye irritation
H335	May cause respiratory irritation.

Precautionary Statement(s)

P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves, eye protection/face protection.
P302 + P352	If on SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/ physician if you feel unwell
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed. \
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

3. Composition/Information on Ingredients

Hazardous Ingredients

Chemical name	Classification	Concentration
Tris (hydroxymethyl) aminomethane CAS no. 77-86-1 EC No. 201-064-4	Skin Irritation 2, H315; Eye Irritation 2, H319	>=10 – <30 %

4. First Aid Measures

General Advice If symptoms persist, call a physician.

If swallowed Rinse mouth with water provided person is conscious. Consult a physician.

Skin contact Wash off with soap and plenty of water. Consult a physician.

Eye exposure Rinse thoroughly with plenty of water for at least 15 minutes. Consult a physician.

If inhaled If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

5. Fire-Fighting Measures

Extinguishing Media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture
Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas, Sodium oxides

Special protective equipment for firefighters
Wear self-contained breathing apparatus if necessary.

6. Accidental Release Measures

Personal precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions
Do not let product enter drains.

Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. Handling and Storage

Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed.

Conditions of safe storage
Keep container tightly closed and upright to prevent leakage.

Recommended storage temperature is 2 - 8°C.

8. Exposure Controls/Personal Protection

Contains no substance with occupational exposure limit values

Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye protection
Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body protection
Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
Do not let product enter drains.

9. Physical and Chemical Properties

Appearance	
Form	powder
Safety Data	
pH	no data available
Melting point/ Freezing point	no data available
Boiling point	no data available
Flash point	no data available
Ignition point	no data available
Auto-ignition Temperature	no data available

Lower explosion limit	no data available
Upper explosion limit	no data available
Vapor pressure	no data available
Density	no data available
Water Solubility	no data available
Partition coefficient n-octanoic/water	no data available
Relative vapor density	no data available
Evaporation rate	no data available

10. Stability and Reactivity

Reactivity
No data available

Chemical stability
Product is stable under normal conditions of storage and use.

Possibility of hazardous reactions
No data available

Conditions to avoid
No data available

Incompatible materials
Strong oxidizing agents, Strong acids

Hazardous decomposition products
No data available

11. Toxicological Information

Acute toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitization	No data available
Germ Cell Mutagenicity	No data available
Carcinogenicity	Not listed by IARC, ACGIH, NTP, OSHA
Reproductive toxicity	No data available
Specific target organ toxicity single exposure	No data available
Specific target organ toxicity repeated exposure	No data available
Aspiration hazard	No data available

12. Ecological Information

Toxicity	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
PBT and vPvb assessment	No data available
Other adverse effects	No data available

13. Disposal Considerations

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. Transportation Information

No special transport regulations

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

15. Regulatory Information

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
No SARA Hazards

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Sodium chloride	CAS-No. 7647-14-5
Tris (hydroxymethyl) aminomethane	CAS-No. 77-86-1
Serum Albumin	CAS-No. 9048-46-8

New Jersey Right To Know Components

Sodium chloride	CAS-No. 7647-14-5
Tris (hydroxymethyl) aminomethane	CAS-No. 77-86-1
Serum Albumin	CAS-No. 9048-46-8

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other Information

For research use only.

Read instructions for use before using the product. Observe the general safety regulations when handling chemicals.

The above information is believed to be correct but does not purport to be all-inclusive and is intended to be used only as a guide. Bethyl Laboratories, Inc. shall not be liable or responsible in any way for use of either this information or the material supplied. Disposal of hazardous material may be subject to federal, state, or local laws or regulations.

Prepared by: Safety Department
Bethyl Laboratories, Inc.
1 -800-338-9579

Safety Data Sheet

Version 5.0
Revision Date 11/07/2019

1. Product and Company Identification

Product Name	ELISA Wash Solution
Catalog Number	E106
Supplier	Bethyl Laboratories, Inc. 25043 West FM 1097 Montgomery, TX 77356
Telephone	800-338-9579
Fax	866-597-6105
Product Use	For Research Use Only, Not for Diagnostic Use.

2. Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Not a hazardous substance or mixture.

GHS Label elements including precautionary statements
Not a hazardous substance or mixture.

3. Composition/Information on Ingredients

No components need to be disclosed according to the applicable regulations.

4. First Aid Measures

If swallowed	Rinse mouth with water provided person is conscious.
Skin contact	Wash skin with soap and plenty of water.
Eye exposure	Flush eyes with water as a precaution.
If inhaled	Move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

5. Fire-Fighting Measures

Extinguishing Media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture
Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas, Potassium oxides, Sodium oxides

Special protective equipment for firefighters
Wear self-contained breathing apparatus if necessary.

6. Accidental Release Measures

Personal precautions
Avoid dust formation. Avoid breathing vapours, mist or gas.

Environmental precautions
No special environmental precautions required.

Methods and materials for containment and cleaning up
Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. Handling and Storage

Precautions for safe handling
Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions of safe storage
Keep container tightly closed in a dry and well-ventilated place.

After reconstitution, recommended storage temperature is 2 - 8°C.

8. Exposure Controls/Personal Protection

Contains no substance with occupational exposure limit values

Appropriate engineering controls
General industrial hygiene practice.

Personal protective equipment

Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Respiratory protection

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body protection
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
No special environmental precautions required.

9. Physical and Chemical Properties

Appearance	
Form	powder
Safety Data	
pH	no data available
Melting point/ Freezing point	no data available
Boiling point	no data available
Flash point	no data available
Ignition point	no data available
Auto-ignition Temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapor pressure	no data available
Density	no data available
Water Solubility	no data available
Partition coefficient n-octanoic/water	no data available
Relative vapor density	no data available
Evaporation rate	no data available

10. Stability and Reactivity

Reactivity
No data available

Chemical stability
Product is stable under normal conditions of storage and use.

Possibility of hazardous reactions
No data available

Conditions to avoid
No data available

Incompatible materials
Bases, Oxidizing agents, Strong oxidizing agents, Strong acids

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride gas, Potassium oxides, Sodium oxides Other decomposition products - No data available

11. Toxicological Information

Acute toxicity No data available

Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitization	No data available
Germ Cell Mutagenicity	No data available
Carcinogenicity	Not listed by IARC, ACGIH, NTP, OSHA
Reproductive toxicity	No data available
Specific target organ toxicity single exposure	No data available
Specific target organ toxicity repeated exposure	No data available
Aspiration hazard	No data available

12. Ecological Information

Toxicity	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
PBT and vPvb assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Other adverse effects	No data available

13. Disposal Considerations

Offer surplus and non-recyclable solutions to a licensed disposal company.

14. Transportation Information

No special transport regulations

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

15. Regulatory Information

SARA 302 Components
This material does not contain any components with a section 302 EHS TPQ.

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
No SARA Hazards

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Sodium chloride	CAS-No. 7647-14-5
Tris (hydroxymethyl) aminomethane	CAS-No. 77-86-1
Tween 20	CAS-No. 9005-64-5
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	CAS-No. 1185-53-1

New Jersey Right To Know Components

Sodium chloride	CAS-No. 7647-14-5
Tris (hydroxymethyl) aminomethane	CAS-No. 77-86-1
Tween 20	CAS-No. 9005-64-5
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	CAS-No. 1185-53-1
Potassium chloride	CAS-No. 7447-40-7

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other Information

For research use only.

Read instructions for use before using the product. Observe the general safety regulations when handling chemicals.

The above information is believed to be correct but does not purport to be all-inclusive and is intended to be used only as a guide. Bethyl Laboratories, Inc. shall not be liable or responsible in any way for use of either this information or the material supplied. Disposal of hazardous material may be subject to federal, state, or local laws or regulations.

Prepared by: Safety Department
Bethyl Laboratories, Inc.
1 -800-338-9579

Safety Data Sheet

Version 4.0
Revision Date 11/07/2019

1. Product and Company Identification

Product Name	ELISA Coating Buffer
Catalog Number	E107
Supplier	Bethyl Laboratories, Inc. 25043 West FM 1097 Montgomery, TX 77356
Telephone	800-338-9579
Fax	866-597-6105
Product Use	For Research Use Only, Not for Diagnostic Use.

2. Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Eye irritation (Category 2A), H319

GHS Label elements

Pictogram

Signal word Warning

Hazard Statements

H319	Cause serious eye irritation

Precautionary Statement(s)

P264	Wash skin thoroughly after handling.
P280	Wear protective gloves, eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.

3. Composition/Information on Ingredients

Hazardous Ingredients

Chemical name		Classification	Concentration
Sodium carbonate			
CAS no. EC No.	497-19-8 207-838-8	Eye Irritation 2; H319	>= 50 - < 70%

4. First Aid Measures

General Advice Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled Move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin contact Wash skin with soap and plenty of water.

Eye exposure Rinse thoroughly with copious amounts of water for at least 15 minutes. Consult a physician

If swallowed Rinse mouth with water provided person is conscious. Consult a physician.

5. Fire-Fighting Measures

Suitable Extinguishing Media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture
Carbon oxides, sodium oxides

Special protective equipment for firefighters
Wear self-contained breathing apparatus if necessary.

6. Accidental Release Measures

Personal precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.
For personal protection see section 8.

Environmental precautions
Do not let product enter drains.

Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. Handling and Storage

Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.
Provide appropriate exhaust ventilation at places where dust is formed.

Conditions of safe storage
Keep container tightly closed and upright to prevent leakage.

After reconstitution, recommended storage temperature is 2 - 8°C.

8. Exposure Controls/Personal Protection

Components with workplace control parameters
Contains no substance with occupational exposure limit values

Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection
Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail
sales@kcl.de, test method: EN374
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection
Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
Do not let product enter drains.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

a) Appearance	Form: solid
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	No date available
g) Flash point	()Not applicable
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available

m) Relative density	No data available
n) Water solubility	No data available
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

9.2 Other safety information

No data available

10. Stability and Reactivity

Reactivity

No data available

Chemical stability

Product is stable under normal conditions of storage and use.

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

Strong acids

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sodium oxides
Other decomposition products - No data available
In the event of fire: see section 5 No data available

11. Toxicological Information

Acute toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitization	No data available
Germ Cell Mutagenicity	No data available
Carcinogenicity	Not listed by IARC, ACGIH, NTP, OSHA
Reproductive toxicity	No data available
Specific target organ toxicity single exposure	No data available
Specific target organ toxicity repeated exposure	No data available
Aspiration hazard	No data available

12. Ecological Information

Toxicity	Not determined
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
PBT and vPvb assessment	No data available
Other adverse effects	No data available

13. Disposal Considerations

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. Transportation Information

No special transport regulations

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

15. Regulatory Information

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

	CAS-No.
Sodium hydrogencarbonate	144-55-8
Sodium carbonate	497-19-8

New Jersey Right To Know Components

	CAS-No.
Sodium hydrogencarbonate	144-55-8
Sodium carbonate	497-19-8

16. Other Information

For research use only.

Read instructions for use before using the product. Observe the general safety regulations when handling chemicals.

The above information is believed to be correct but does not purport to be all-inclusive and is intended to be used only as a guide. Bethyl Laboratories, Inc. shall not be liable or responsible in any way for use of either this information or the material supplied. Disposal of hazardous material may be subject to federal, state, or local laws or regulations.

Prepared by: Safety Department
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