SAFETY DATA SHEETS

This SDS packet was issued with item:

072264109

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

072264471

Material Safety Data Sheet

ProEZ 2TM Dual Enzymatic Detergent

Product Number Prefix: PREZ

ISSUE DATE: January 2012 (Supersedes: July 2010)



6120 East 58th Avenue Commerce City, CO 80022 Office (303) 799-9401 Fax (303) 799-9408 Toll-free (800) 843-3343 www.Certol.com

24-Hour Emergency Telephone INFOTRAC: 1-800-535-5053

Certol International, LLC urges each recipient of the MSDS to read it carefully to understand the hazards associated with the product. The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology and fire prevention, as needed to understand the data in the MSDS.

To promote safe handling, each recipient of the MSDS should: (1) notify anyone using the material of the MSDS information regarding hazards or safety; (2) furnish the MSDS information to customers purchasing the product; and (3) request the customers furnish MSDS information to all users.

Emergency and First Aid Procedures

Swallowing: Rinse mouth and throat thoroughly with water. Drink large amounts of water. DO NOT induce vomiting. Do not give anything by mouth to an unconscious or convulsing person. Seek medical attention immediately.

Skin Contact: Wash skin with flowing water or shower. If irritation persists, seek medical attention.

Inhalation: Remove the affected victim from exposure. Administer artificial respiration if breathing stopped. Seek medical attention immediately.

Eye Contact: Flush eyes with water for 15 minutes. If irritation persists, seek medical attention.

1. Identification

<u>Product Name:</u> ProEZ 2[™] Dual Enzymatic Detergent <u>Chemical Name:</u> Blend

2. Hazards

PRINCIPAL HAZARDOUS COMPONENTS	CAS#
None	None

3. Physical Data

Appearance: Blue liquid

Odor: Fresh

Solubility in Water: Complete
Boiling Point: Above 212°F (100°C)
Freezing Point: Below 23°F (-5°C)
Vapor Density (Air=1): > 1
Evaporation Rate (BuAc=1): < 1
Specific Gravity: 1.07 @ 68°F (20°C)

pH Concentrate: 7.4 - 8.3

4. Fire and Explosion Hazard

<u>Flash Point:</u> Not flammable <u>Flammable Limits In Air:</u> N/A

<u>Special Fire Fighting Procedures:</u> Wear self-contained breathing apparatus and protective equipment.

<u>Unusual Fire And Explosion Hazards:</u> None known <u>Extinguishing Media:</u> CO², dry foam, dry chemical or water as needed to extinguish surrounding fire

Auto Ignition Temperature: N/A

5. Health Hazard Data

COMPONENT				(Dermal	LD50 (Oral Rat)
None	0	N/A	N/A	N/A	N/A

Effect of Overexposure:

Swallowing: May cause nausea

Skin Contact: Prolonged contact may cause mild

irritation

<u>Inhalation:</u> May cause mild respiratory irritation <u>Eye Contact:</u> May cause mild corneal irritation

Carcinogenicity:

NTR: No IARC: No OSHA: No

6. Reactivity Data

<u>Stability:</u> Stable at normal conditions <u>Conditions To Avoid:</u> None known

Incompatibility (Materials To Avoid): Avoid contact

with strong acids, oxidizers and alkalis.

Hazardous Combustion or Decomposition

Products: None known at normal conditions

Hazardous Polymerization: Will not occur

7. Spill, Leak and Waste Disposal Procedures

Steps To Be Taken In Case Material Is Released or Spilled: Absorb with inert material. Shovel or sweep spills. Flush remainder with plenty of water. The wet contaminated surface may be slippery.

<u>Waste Disposal Method:</u> Dispose according to all local, state, and federal regulations.

8. Handling and Storage

Store in a closed container, in a cool, dry, well-ventilated place away from incompatible materials. Do not store above 86°F (30°C). Keep out of reach of children.

9. Special Protection Information

Respiratory Protection: Not normally required. A mask or respirator may be used if vapor

concentration is high.

Ventilation: Local exhaust or normal facility

ventilation

Protective Gloves: Water resistant gloves

Eye Protection: Safety glasses, goggles or face shield Protective Clothing: No special clothing required Other Protective Clothing Or Equipment: An eyewash station should be nearby and ready for use.

10. Regulation Information

Status On Substance List: None known

Federal EPA: None

State Right-To-Know: None known

SARA: None

11. Transportation Data

<u>Proper Shipping Name:</u> None **D.O.T.:** Unregulated commodity

CHEMICAL WARNING LABELS

Required on all containers, tubs and bottles, which are filled from original containers with potentially hazardous substances.

Hazard rating corresponding to the NFPA Rating System:

- 4 Extreme
- 3 High
- 1 Slight

2 - Moderate

0 - Insignificant

NFPA HAZARD RATING For This Product

HEALTH: 1

FLAMMABILITY: 0

REACTIVITY: 0

Chemical Warning Label – Certol International, LLC ProEZ 2™ Dual Enzymatic Detergent

No wall reference is necessary

Product Name: ProEZ 2[™] Dual Enzymatic Detergent

Hazardous Chemicals: None

Personal Protection: Gloves, safety goggles or face shield

ROUTE OF ENTRY	HEALTH HAZARD	FIRE HAZARD
✓ Inhalation	✓ Irritant	■ Below 73°F
✓ Ingestion	Carcinogen	(23°C)
✓ Skin/eye absorption	■ Toxic	■ Below 100°F
	Sensitizer	(38°C)
TARGET ORGAN	Normal Material	☐ Above 100°F
EFFECTS		(38°C) & not
✓ Respiratory		> 200°F (93°C)
☐ Heart		☐ Above 200°F
☐ Kidney		(93°C)
✓ Eyes		✓ Will Not Burn
	PHYSICAL HAZARD	REACTIVITY
✓ Skin	Oxidizer	May detonate
☐ Prostate	□ Acid	☐ Shock and heat
☐ Blood	Alkali	may detonate
□ Liver	Corrosive	Violent chemical change
☐ CNS	Use no water	Unstable if
□ Other	□ Radioactive	heated
B other		✓ Stable

The information contained herein is furnished without warranty or legal responsibility of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees.



SAFETY DATA SHEET

Issue Date January 2012 Revision Date July 2013 Version 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name ProEZ 2[™]

Other Means of Identification

SDS # PREZ/SDS/I01

Product Code PREZ

Recommended Use of the Chemical and Restrictions on Use

Recommended Use Cleaning Agent.

Details of the Supplier of the Safety Data Sheet

Supplier Address Certol International, LLC.

6120 East 58th Avenue

Commerce City, Colorado 80022

www.Certol.com

Emergency Telephone Number

Company Phone Number(s)

Phone: 303-799-9401 Toll-Free: 1-800-843-3343 Fax: 303-799-9408

24 Hour Emergency Telephone

INFOTRAC: 1-800-535-5053 (North America) INFOTRAC: 1-352-323-3500 (International)

2. HAZARDS IDENTIFICATION

Classification

Causes eye irritation Category 2B

Signal Word Warning.

<u>Hazard Statements</u> Causes eye irritation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

<u>Appearance</u> Blue Clear Liquid.

Physical State Liquid.

Odor Fresh.

2. HAZARDS IDENTIFICATION (continued)



Precautionary Statements-Prevention

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Use personal protective equipment as required.

Use only in a well-ventilated area.

Wear protective gloves.

Do not breathe dust/fume/gas/mist/vapors/spray.

Precautionary Statements-Response

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a Poison Control Center or doctor/physician.

IF SWALLOWED: Immediately call a Poison Control Center or doctor/physician. Rinse mouth.

IF EXPOSED: Call a Poison Control Center or doctor/physician.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a Poison Control Center or doctor/physician.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

IF SKIN IRRITATION OR RASH OCCUR: Get medical advice/attention. Call a Poison Control Center or doctor/physician if you feel unwell.

Precautionary Statements - Storage

Store in a closed container, in a cool, dry well-ventilated place away from incompatable materials.

Do not store above 86°F (30°C).

Keep out of the reach of children and pets.

Precautionary Statements - Disposal

Dispose according to all local, state and federal regulations.

Hazards not otherwise classified (HNOC)

Causes mild skin irritation.

Other Information

Toxic to aquatic life.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%
Subtilisin (Protease)	9014-01-1	*
Triethanolamine	102-71-6	*

^{*}The exact percentage is a trade secret.

4. FIRST AID MEASURES

First Aid Measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not

breathing, give artificial respiration. Call a physician or Poison Control Center immediately.

Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses

and continue flushing for at least 15 minutes. Call physician immediately.

Ingestion Rinse mouth. Drink large amounts of water. Never give anything by mouth

to a person who is unconscious or convulsing. Call a physician or Poison

Control Center immediately.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated

clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get

medical advice/attention. Call a physician if you feel unwell.

Most Important Symptoms and Effects, both Acute and Delayed

Symptoms Skin contact can lead to drying, itching, stinging and irritation. Exposed individuals

may experience eye tearing, redness and discomfort.

Indication of any Immediate Medical Attention and Special Treatment Needed

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use water, CO₂, dry chemical or foam for extinction.

Unsuitable Extinguishing Media

Not Determined.

Specific Hazards Arising from the Chemical

Not Determined.

Protective Equipment and Precautions for Firefighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions

Use personal protective equipment as required.

For Emergency Responders

Restrict access to spill area. Ventilate the area.

Environmental Precautions

Prevent entry into waterways, sewers, basements or confined areas.

See Section 12 for additional ecological information.

Methods and Material for Containment and Cleaning Up

Methods for Containment

Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up

Flush small spills with water. Dike to collect large liquid spills.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Advice on Safe Handling

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Use personal protection recommended in Section 8.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only in well-ventilated areas.

Do not breathe dust/fumes/gas/mist/vapors/spray.

Do not store above 86°F (30°C).

Keep out of the reach of children and pets.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions

Store in a closed container in a dry, cool and well-ventilated place away from

incompatable materials.

Do not store above 86°F (30°C).

Keep out of the reach of children and pets.

Incompatible Materials

Avoid contact with strong acids, oxidizers and alkalis.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Subtilisin (Protease)	Ceiling:	(vacated) STEL:	STEL:
9014-01-1	0.00006 mg/m ³	0.00006 mg/m³ 60 min.	0.00006 mg/m ³ 60 min.
Triethanolamine 102-71-6	TWA: 5mg/m³	N/A	N/A

Appropriate Engineering Controls

Engineering Controls

Apply technical measures to comply with the occupational exposure limits. Eyewash stations.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection

Wear goggles, chemical safety glasses or a face protection shield.

Skin and Body Protection

Chemical resistant, impermeable gloves.

Wear appropriate clothing to prevent repeated or prolonged skin contact.

Respiratory Protection

Under normal conditions a respirator is not normally required. A mask or respirator may be used if vapor concentration is high.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State Liquid.

Appearance Blue Clear Liquid.

ColorBlue.OdorFresh.

Property Values Remarks * Method

pH 7.4 - 8.3 68°F (20°C)

Melting Point / Freezing Point $< 23^{\circ}F / < -5^{\circ}C$

Boiling Point / Boiling Range 212°F / 100°C (Approximate)

Flash Point Not Flammable.

Evaporation Rate < 1 (Butyl acetate = 1) (Approximate)

Flammability (Solid/Gas)

Flammability Limits In Air

Vapor Pressure

N/A-Liquid.

Not Flammable.

Not Determined.

Vapor Density> 1(Air = 1) (Approximate)Specific Gravity1.07 g/cc68°F (20°C) (Water = 1)

Water Solubility Completely Soluble. **Partition Coefficient** See Section 12. Not Flammable. **Autoignition Temperature Decomposition Temperature** Not Determined. **Kinematic Viscosity** Not Determined. **Dynamic Viscosity** Not Determined. **Explosive Properties** Not Explosive. **Oxidizing Properties** Not Determined.

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization will not occur.

Conditions to Avoid

None under normal processing.

Incompatible Materials

Avoid contact with strong acids, oxidizers and alkalis.

Hazardous Decomposition Products

None known.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

Inhalation Avoid breathing vapors or mists.

Eye Contact Causes eye irritation.

Skin Contact Causes mild skin irritation.

Ingestion Do not taste or swallow.

Component Information

Chemical Name	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
Subtilisin (Protease) 9014-01-1	3700 mg/kg (Rat)	N/A	N/A
Triethanolamine 102-71-6	4190 mg/kg (Rat)	16 ml/kg (Rat)	N/A

Information on Physical, Chemical and Toxicological Effects

Symptoms

Please see section 4 of this SDS for symptoms.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

However, the product as a whole has not been tested.

Sensitization May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Chemical Name	ACGIH	IARC	NTP	OSHA
Triethanolamine 102-71-6	N/A	Group 3	N/A	N/A

IARC (International Agency for Research on Cancer)

Group 3 - Not Carcinogenic to Humans

STOT - Single Exposure

Not Determined.

STOT - repeated exposure

Not Determined.

Numerical Measures of Toxicity

Not Determined.

12. ECOLOGICAL INFORMATION

Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic organisms.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Benzotriazole 95-14-7	Known Toxin	Known Toxin	No Information	Known Toxin
Triethanolamine 102-71-6	Known Toxin	Known Toxin	No Information	Known Toxin

Persistence and Degradability

Not Determined.

Bioaccumulation

Not Determined.

Mobility

Not Determined.

Chemical Name	Partition Coefficient
Triethanolamine 102-71-6	-1.00

Other Adverse Effects

Not Determined.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes

Dispose according to all local, state and federal regulations.

Contaminated Packaging

Dispose according to all local, state and federal regulations.

Chemical Name	California Hazardous Waste Status
Borax 1303-96-4	Toxic

14. TRANSPORT INFORMATION

Note

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT Not Regulated.

IATA Not Regulated.

IMDG Not Regulated.

15. REGULATORY INFORMATION

International Inventories

Not Determined.

Legend:

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

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

EINECS/ELINCS - European Inventory of Existing Chemical Substances/

European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

SARA 313

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

SARA 311/312 Hazard Categories

This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III. Section 311/312.

US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Propylene Glycol 57-55-6	X	N/A	×
Benzotriazole 95-14-7	N/A	X	N/A
Triethanolamine 102-71-6	Х	X	×
Borax 1303-96-4	Х	х	x

16. OTHER INFORMATION

NFPA

Health Hazards
1 0 Instability Special Hazards
Not Determined.

HMIS

Health HazardsFlammabilityPhysical HazardsPersonal ProtectionNot Determined.Not Determined.Not Determined.

Issue Date January 2012

Revision Date July 2013

Revision Note New format

Disclaimer

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End of Safety Data Sheet



SAFETY DATA SHEET

Issue Date January 2012 Revision Date July 2013 Version 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name ProEZ 1™

Other Means of Identification

SDS # EZ/SDS/I01

Product Code EZ

Recommended Use of the Chemical and Restrictions on Use

Recommended Use Cleaning Agent.

Details of the Supplier of the Safety Data Sheet

Supplier Address Certol International, LLC.

6120 East 58th Avenue

Commerce City, Colorado 80022

www.Certol.com

Emergency Telephone Number

Company Phone Number(s)

Phone: 303-799-9401 Toll-Free: 1-800-843-3343 Fax: 303-799-9408

24 Hour Emergency Telephone

INFOTRAC: 1-800-535-5053 (North America) INFOTRAC: 1-352-323-3500 (International)

2. HAZARDS IDENTIFICATION

Classification

Causes eye irritation Category 2B

<u>Signal Word</u> Warning.

<u>Hazard Statements</u> Causes eye irritation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Appearance Green Clear Liquid.

Physical State Liquid.

Odor Fresh.

2. HAZARDS IDENTIFICATION (continued)



Precautionary Statements-Prevention

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Use personal protective equipment as required.

Use only in a well-ventilated area.

Wear protective gloves.

Do not breathe dust/fume/gas/mist/vapors/spray.

Precautionary Statements-Response

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a Poison Control Center or doctor/physician.

IF SWALLOWED: Immediately call a Poison Control Center or doctor/physician. Rinse mouth.

IF EXPOSED: Call a Poison Control Center or doctor/physician.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a Poison Control Center or doctor/physician.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

IF SKIN IRRITATION OR RASH OCCUR: Get medical advice/attention. Call a Poison Control Center or doctor/physician if you feel unwell.

Precautionary Statements - Storage

Store in a closed container, in a cool, dry well-ventilated place away from incompatable materials.

Do not store above 86°F (30°C).

Keep out of the reach of children and pets.

Precautionary Statements - Disposal

Dispose according to all local, state and federal regulations.

Hazards not otherwise classified (HNOC)

Causes mild skin irritation.

Other Information

Toxic to aquatic life.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%
Subtilisin (Protease)	9014-01-1	*
Triethanolamine	102-71-6	*

^{*}The exact percentage is a trade secret.

4. FIRST AID MEASURES

First Aid Measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not

breathing, give artificial respiration. Call a physician or Poison Control Center immediately.

Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses

and continue flushing for at least 15 minutes. Call physician immediately.

Ingestion Rinse mouth. Drink large amounts of water. Never give anything by mouth

to a person who is unconscious or convulsing. Call a physician or Poison

Control Center immediately.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated

clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get

medical advice/attention. Call a physician if you feel unwell.

Most Important Symptoms and Effects, both Acute and Delayed

Symptoms Skin contact can lead to drying, itching, stinging and irritation. Exposed individuals

may experience eye tearing, redness and discomfort.

Indication of any Immediate Medical Attention and Special Treatment Needed

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use water, CO₂, dry chemical or foam for extinction.

Unsuitable Extinguishing Media

Not Determined.

Specific Hazards Arising from the Chemical

Not Determined.

Protective Equipment and Precautions for Firefighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions

Use personal protective equipment as required.

For Emergency Responders

Restrict access to spill area. Ventilate the area.

Environmental Precautions

Prevent entry into waterways, sewers, basements or confined areas.

See Section 12 for additional ecological information.

Methods and Material for Containment and Cleaning Up

Methods for Containment

Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up

Flush small spills with water. Dike to collect large liquid spills.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Advice on Safe Handling

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Use personal protection recommended in Section 8.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only in well-ventilated areas.

Do not breathe dust/fumes/gas/mist/vapors/spray.

Do not store above 86°F (30°C).

Keep out of the reach of children and pets.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions

Store in a closed container in a dry, cool and well-ventilated place away from

incompatable materials.

Do not store above 86°F (30°C).

Keep out of the reach of children and pets.

Incompatible Materials

Avoid contact with strong acids, oxidizers and alkalis.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Subtilisin (Protease)	Ceiling:	(vacated) STEL:	STEL:
9014-01-1	0.00006 mg/m ³	0.00006 mg/m³ 60 min.	0.00006 mg/m ³ 60 min.
Triethanolamine 102-71-6	TWA: 5mg/m³	N/A	N/A

Appropriate Engineering Controls

Engineering Controls

Apply technical measures to comply with the occupational exposure limits. Eyewash stations.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection

Wear goggles, chemical safety glasses or a face protection shield.

Skin and Body Protection

Chemical resistant, impermeable gloves.

Wear appropriate clothing to prevent repeated or prolonged skin contact.

Respiratory Protection

Under normal conditions a respirator is not normally required.

A mask or respirator may be used if vapor concentration is high.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State Liquid.

Appearance Green Clear Liquid.

ColorGreen.OdorFresh.

<u>Property</u> <u>Values</u> <u>Remarks * Method</u>

pH 7.4 - 8.3 68°F (20°C)

Melting Point / Freezing Point $< 23^{\circ}F / < -5^{\circ}C$

Boiling Point / Boiling Range 212°F / 100°C (Approximate)

Flash Point Not Flammable.

Evaporation Rate < 1 (Butyl acetate = 1) (Approximate)

Flammability (Solid/Gas)

Flammability Limits In Air

Vapor Pressure

N/A-Liquid.

Not Flammable.

Not Determined.

Vapor Density> 1(Air = 1) (Approximate)Specific Gravity1.07 g/cc 68° F (20°C) (Water = 1)

Water Solubility Completely Soluble. **Partition Coefficient** See Section 12. Not Flammable. **Autoignition Temperature Decomposition Temperature** Not Determined. **Kinematic Viscosity** Not Determined. **Dynamic Viscosity** Not Determined. **Explosive Properties** Not Explosive. **Oxidizing Properties** Not Determined.

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization will not occur.

Conditions to Avoid

None under normal processing.

Incompatible Materials

Avoid contact with strong acids, oxidizers and alkalis.

Hazardous Decomposition Products

None known.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

Inhalation Avoid breathing vapors or mists.

Eye Contact Causes eye irritation.

Skin Contact Causes mild skin irritation.

Ingestion Do not taste or swallow.

Component Information

Chemical Name	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
Subtilisin (Protease) 9014-01-1	3700 mg/kg (Rat)	N/A	N/A
Triethanolamine 102-71-6	4190 mg/kg (Rat)	16 ml/kg (Rat)	N/A

Information on Physical, Chemical and Toxicological Effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

However, the product as a whole has not been tested.

Sensitization May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Chemical Name	ACGIH	IARC	NTP	OSHA
Triethanolamine 102-71-6	N/A	Group 3	N/A	N/A

IARC (International Agency for Research on Cancer)

Group 3 - Not Carcinogenic to Humans

STOT - Single Exposure

Not Determined.

STOT - repeated exposure

Not Determined.

Numerical Measures of Toxicity

Not Determined.

12. ECOLOGICAL INFORMATION

Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic organisms.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Triethanolamine 102-71-6	Known Toxin	Known Toxin	No Information	Known Toxin

Persistence and Degradability

Not Determined.

Bioaccumulation

Not Determined.

Mobility

Not Determined.

Chemical Name	Partition Coefficient	
Triethanolamine 102-71-6	-1.00	

Other Adverse Effects

Not Determined.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes

Dispose according to all local, state and federal regulations.

Contaminated Packaging

Dispose according to all local, state and federal regulations.

Chemical Name	California Hazardous Waste Status	
Borax	Toxic	
1303-96-4		

14. TRANSPORT INFORMATION

Note

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT Not Regulated.

IATA Not Regulated.

IMDG Not Regulated.

15. REGULATORY INFORMATION

International Inventories

Not Determined.

Legend:

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

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

EINECS/ELINCS - European Inventory of Existing Chemical Substances/

European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances **IECSC** - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

SARA 313

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

SARA 311/312 Hazard Categories

This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III. Section 311/312.

US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Propylene Glycol 57-55-6	Х	N/A	X
Benzotriazole 95-14-7	N/A	Х	N/A
Triethanolamine 102-71-6	Х	Х	×
Borax 1303-96-4	Х	х	х

16. OTHER INFORMATION

NFPA

Health Hazards
1 0 Instability Special Hazards
Not Determined.

HMIS

Health Hazards Flammability Physical Hazards Personal Protection
Not Determined. Not Determined. Not Determined.

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Revision Note New format

Disclaimer

The information contained herein is furnished without warranty or legal responsibility of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees.

End of Safety Data Sheet