



SAFETY DATA SHEET

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

Product Name: Purit® Enz-It (Powder)

Product Number: PE024

Distributed by:

Biotrol
13705 Shoreline Court East
Earth City, MO 63045
1.800.325.1881

Infotrac - h v

24-Hour Number- (U.S.) 1-800-535-5053; **Outside U.S.-** 352-323-3500

SECTION 2 – HAZARD(S) IDENTIFICATION

Classification of the substance or mixture



Corrosion

Causes serious eye damage.



Causes skin irritation.

Label elements

GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms



GHS05



GHS07

Signal word: Danger

Hazard statements

Harmful if swallowed.

Causes skin irritation.

Causes serious eye damage.

May cause an allergic skin reaction.

(Continued of page 1)

Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray.

Wear protective gloves/protective clothing/eye protection/face protection.

Wash thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace. Take off contaminated clothing and wash before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF SWALLOWED: Rinse mouth. Call a POISON CENTER/doctor if you feel unwell.

IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.

Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:

NFPA ratings (scale 0 - 4)



Health = 2
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = 2
Fire = 0
Reactivity = 0

SECTION 3 - COMPOSITION /INFORMATION ON INGREDIENTS

Chemical characterization: Mixtures

Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous Components:

CAS No.	Description	% Range	GHS-US classification
CAS: 7758-29-4	Pentasodium triphosphate	15-40%	
CAS: 64-02-8	Tetrasodium ethylenediaminetetraacetate	10-30%	Eye Dam. 1, H318 Acute Tox. 4, H302
CAS: 497-19-8	Sodium carbonate	7-13%	Eye Irrit. 2, H319
CAS: NA	Surfactants	7-13%	Skin Irrit. 2, H315 Eye Irrit. 2A, H319
CAS: 9014-01-1	Subtilisin	<5%	Resp Sens. 2, H317

SECTION 4 - FIRST AID INFORMATION

Description of first aid measures

General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:

If having difficulty breathing, contact emergency personnel immediately 9014-01-1

(Continued of page 2)

Supply fresh air and to be sure call for a doctor.

After skin contact:

Remove contaminated clothing. Wash clothing before reuse.

Immediately wash with water and soap and rinse thoroughly.

If irritation occurs consult a doctor.

After eye contact:

Hold eyelids apart and flush eyes with plenty of water for at least 20 minutes.

Rinse opened eye for several minutes under running water. Then consult a doctor if condition persists.

After swallowing:

Do NOT induce vomiting and call for medical help.

Never give anything by mouth to an unconscious person

Most important symptoms and effects, both acute and delayed

No further relevant information available.

Information for doctor:

This product contains sodium carbonate at low concentrations. While no adverse complications are expected, consider endoscopy in all suspected cases of poisoning. Perform blood analysis to determine if dehydration, acidosis, or other electrolyte imbalances occurred.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5 - FIRE-FIGHTING INFORMATION

Extinguishing media

Suitable extinguishing agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture

No further relevant information available.

Advice for firefighters

Protective equipment:

Full protective clothing and self-contained breathing apparatus should be worn.

SECTION 6 - ACCIDENTAL RELEASE INFORMATION

Personal precautions, protective equipment and emergency procedures:

Refer to section 8

Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to section 13.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling:

Avoid contact with skin, eyes and clothing

Information about protection against explosions and fires:

No special measures required.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

Keep container tightly closed.

Store in a well ventilated place.

Store in a cool, dry place.

Information about storage in one common storage facility:

Not required.

Further information about storage conditions:

Use plastics or stainless steel for suitable packaging.

Precautions for safe handling:

Avoid contact with skin, eyes and clothing

Specific end use(s)

No further relevant information available.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional information about design of technical systems:

No further data; see section 7.

Control parameters

Components with occupational exposure limits:

Federal guidelines suggest to treat the ingredient in this product as a nuisance dust, as no product specific guidelines have been issued for exposure.

Particulates Not Otherwise Regulated: OSHA (PEL/TWA): 15 mg/m³ (total dust); 5 mg/mg³ (resp fraction)

Additional information:

The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Breathing equipment: Not required.

Protection of hands:

(Continued of page 4)



Protective Gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/the chemical mixture.

Select glove material based on penetration times, rates of diffusion and degradation.

Material of gloves

The selection of the suitable gloves depends on the material, and marks of quality, and varies from manufacturer to manufacturer.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

Eye protection:

Have a safety shower and eyewash fountain readily available in the immediate work area

Tightly sealed goggles

Body protection: Protective work clothing

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Crystalline powder	Color:	Blue
Odor:	No significant odor	Odor threshold:	Not determined
pH-value @ 20° C (68° F):	9.5		

Change in condition:

Melting point/Melting range: Not determined.
Boiling point/Boiling range: 101° C (214° F)

Flash point: Not applicable

Flammability (solid, gaseous): Not determined

Ignition temperature:

Decomposition temperature: Not determined.

Auto igniting: Product is not self igniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined	Upper:	Not determined
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Vapor pressure:	Not applicable	Relative density	Not determined
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Density:	Not determined	Vapor density	Not applicable	(Continued of page 5)
Evaporation rate	Not applicable			
Partition coefficient (n-octanol/water): Not determined				
Viscosity:				
Dynamic:	Not applicable	Kinematic:	Not applicable	
Solvent content:				
Organic solvents:	0.0%	Solids content:	100.0%	
		Other information	No further relevant information available.	

SECTION 10 – STABILITY AND REACTIVITY

Reactivity	No further relevant information available.
Chemical stability	Product is stable under normal conditions.
Thermal decomposition / conditions to be avoided:	
Carbon dioxide and carbon monoxide may form when heated to decomposition	
Conditions to avoid:	
Avoid strong oxidizing agents, aluminum, heat, moisture and other incompatible materials as stated above.	
Incompatible materials:	
Avoid oxidizing agents and acids. Avoid contact with bare aluminum. Flammable hydrogen gas may be produced in contact with bare aluminum. Sodium carbonate reacts with fluorine, aluminum, phosphorous pentoxide, sulfuric acid, zinc, lithium, moisture, calcium hydroxide and 2,4,6-trinitrotoluene and reacts violently with acid to form carbon dioxide.	
Hazardous decomposition products:	
Carbon dioxide and carbon monoxide may form when heated to decomposition.	

SECTION 11 – TOXICOLOGICAL INFORMATION

Information on toxicological effects	
Acute toxicity	
LD/LC50 values that are relevant for classification	
Pentasodium triphosphate (CAS: 7758-29-4)	
LD50 oral rate	3900 mg/kg (rat)
Tetrasodium ethylenediaminetetraacetate (CAS: 64-02-8)	
LD50 oral rate	>2000 mg/kg (rat)
Sodium carbonate (CAS: 497-19-8)	
LD50 oral rate	4090 mg/kg (rat)
Subtilisin (CAS: 9014-01-1)	
LD50 oral rate	>2000 mg/kg (rat)
Primary irritant effect:	
On the skin:	Irritant to skin and mucous membranes.
On the eye:	Strong irritant with the danger of severe eye injury.

Sensitization:

Sensitization possible through skin contact.

(Continued of page 6)

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

Carcinogenic categories**IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

SECTION 12 – ECOLOGICAL INFORMATION**Toxicity****Aquatic toxicity:**

Persistence and degradability

Bioaccumulative potential

Mobility in soil

Toxic to aquatic life

No further relevant information available.

No further relevant information available.

No further relevant information available.

Additional ecological information:**General notes:**

Water hazard class 2 (Self-assessment):

hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Results of PBT and vPvB assessment

PBT:

Not applicable

vPvB:

Not applicable

Other adverse effects

No further relevant information available.

SECTION 13 – DISPOSAL CONSIDERATIONS**Waste disposal methods**

Waste disposal recommendation

Observe all federal, state and local environmental regulations when disposing of this material.

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Un-cleaned packaging:

Recommendation:

Disposal must be made according to official regulations.

Recommended cleansing agent:

Water, if necessary with cleansing agents.

SECTION 14 – TRANSPORT INFORMATION

<i>UN-Number</i>	
<i>DOT, ADR, ADN, IMDG, IATA</i>	Non-Regulated Material
<i>UN proper shipping name</i>	
<i>DOT, ADR, ADN, IMDG, IATA</i>	Non-Regulated Material
<i>Transport hazard class(es)</i>	
<i>DOT, ADR, ADN, IMDG, IATA</i>	
<i>Class</i>	Non-Regulated Material
<i>Packing group</i>	
<i>DOT, ADR, IMDG, IATA</i>	Non-Regulated Material
<i>Environmental hazards:</i>	
<i>Marine pollutant:</i>	No
<i>Special precautions for user</i>	Not applicable
<i>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</i>	
<i>UN "Model Regulation":</i>	-

SECTION 15 – REGULATORY INFORMATION**Safety, health and environmental regulations/legislation specific for the substance or mixture****Sara****Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

CAS: 7758-29-4 Pentasodium triphosphate

TSCA (Toxic Substances Control Act):

CAS: 7758-29-4 Pentasodium triphosphate
CAS: 64-02-8 Tetrasodium ethylenediaminetetraacetate
CAS: 497-19-8 Sodium carbonate
CAS: 9014-01-1 Subtilisin

Proposition 65

Chemicals known to cause cancer:	None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for females:	None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for males:	None of the ingredients is listed.
Chemicals known to cause developmental toxicity:	None of the ingredients is listed.

Carcinogenic categories

EPA (Environmental Protection Agency)	None of the ingredients is listed.
TLV (Threshold Limit Value established by ACGIH)	None of the ingredients is listed.
NIOSH-Ca (National Institute for Occupational Safety and Health)	None of the ingredients is listed.

GHS label elements

The product is classified and labeled according to the Global Harmonized System (GHS).

Hazard pictograms



GHS05



GHS07

Signal word: Danger

Hazard statements

Harmful if swallowed.

Causes skin irritation.

Causes serious eye damage.

May cause an allergic skin reaction.

Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray.

Wear protective gloves/protective clothing/eye protection/face protection.

Wash thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace. Take off contaminated clothing and wash before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF SWALLOWED: Rinse mouth. Call a POISON CENTER/doctor if you feel unwell.

IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.

Dispose of contents/container in accordance with local/regional/national/international regulations.

National Regulations

The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

State Right to Know

CAS No.	Description	% Range	GHS-US classification
CAS: 7758-29-4	Pentasodium triphosphate	15-40%	
CAS: 64-02-8	Tetrasodium ethylenediaminetetraacetate	10-30%	☠ Eye Dam. 1, H318 ☠ Acute Tox. 4, H302
CAS: 497-19-8	Sodium carbonate	7-13%	☠ Eye Irrit. 2, H319
CAS: NA	Surfactants	7-13%	☠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319
CAS: 9014-01-1	Subtilisin	<5%	☠ Resp Sens. 2, H317

All ingredients are listed.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16 – OTHER INFORMATION

Abbreviations and acronyms:

ADR:	Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG:	International Maritime Code for Dangerous Goods
DOT:	US Department of Transportation
IATA:	International Air Transport Association
ACGIH:	American Conference of Governmental Industrial Hygienists
EINECS:	European Inventory of Existing Commercial Chemical Substances
ELINCS:	European List of Notified Chemical Substances
CAS:	Chemical Abstracts Service (division of the American Chemical Society)
NFPA:	National Fire Protection Association (USA)
HMIS:	Hazardous Materials Identification System (USA)
LC50:	Lethal concentration, 50 percent
LD50:	Lethal dose, 50 percent
Acute Tox. 4:	Acute toxicity, Hazard Category 4
Skin Irrit. 2:	Skin corrosion/irritation
Eye Dam. 1:	Serious eye damage/eye irritation
Eye Irrit. 2:	Serious eye damage/eye irritation
Eye Irrit. 2A:	Serious eye damage/eye irritation
Skin Sens. 1:	Sensitization - Skin

Revision Summary Complies with GHS OSHA requirements.

Supersedes: 20 March 2013

Date Revised: 24 April 2015

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