

SAFETY DATA SHEETS

This SDS packet was issued with item:

070909796

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

070909812 078587308

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 08.24.2020

Page 1 of 12

Patterson Multi-Purpose Enzyme Tablets

SECTION 1: Identification

Product identifier

Product name: Patterson Multi-Purpose Enzyme Tablets

Product code: 50036790

Recommended use of the product and restriction on use

Relevant identified uses: Ultra sonic cleaner for dental instruments

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:

United States

Patterson Companies, Inc.

1031 Mendota Heights Road

St. Paul, MN 55120

1-800-328-5536

www.pattersoncompanies.com

Emergency telephone number:

United States

CHEMTREC

Within USA and Canada: 1-800-424-9300 (24 hours)

SECTION 2: Hazard(s) identification

GHS classification:

Skin irritation, category 2

Serious eye damage, category 1

Respiratory sensitization, category 1

Specific target organ toxicity - single exposure, category 3, respiratory tract irritation

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H315 Causes skin irritation

H318 Causes serious eye damage

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

H335 May cause respiratory irritation

Precautionary statements:

P264 Wash hands thoroughly after handling

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 08.24.2020

Page 2 of 12

Patterson Multi-Purpose Enzyme Tablets

P280 Wear protective gloves/protective clothing/eye protection/face protection

P261 Avoid breathing dust

P284 Wear respiratory protection

P271 Use only outdoors or in a well-ventilated area

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 Immediately call a POISON CENTER/doctor

P302+P352 IF ON SKIN: Wash with plenty of water/soap

P362 Take off contaminated clothing and wash it before reuse

P321 Specific treatment (see supplemental first aid instructions on this label)

P332+P313 If skin irritation occurs: Get medical advice/attention

P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor

P403+P233 Store in a well-ventilated place. Keep container tightly closed

P405 Store locked up

P501 Dispose of contents/container in accordance with local regulations

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 497-19-8	Sodium carbonate	15-35
CAS number: 9014-01-1	Subtilisin	15-35
CAS number: 77-92-9	Citric acid	15-35
CAS number: 532-32-1	Sodium benzoate	2-12
CAS number: 25322-68-3	Poly (ethylene oxide)	2-12

Additional Information:

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of the OSHA Hazard Communication Standard (29 CFR §1910.1200).

SECTION 4: First aid measures

Description of first aid measures

General notes:

Show this Safety Data Sheet to the doctor in attendance.

After inhalation:

If inhaled, remove person to fresh air and place in a position comfortable for breathing. Keep person at rest. If breathing is difficult, administer oxygen. If breathing has stopped, provide artificial respiration. If experiencing respiratory symptoms, seek medical advice/attention.

After skin contact:

Remove contaminated clothing and shoes. Rinse skin with copious amounts of water [shower] for several

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 08.24.2020

Page 3 of 12

Patterson Multi-Purpose Enzyme Tablets

minutes. Launder contaminated clothing before reuse. If symptoms develop or persist, seek medical advice/attention.

After eye contact:

Immediately rinse eyes with plenty of gently flowing lukewarm water for 15 minutes. Remove contact lenses if present and easy to do so. Protect unexposed eye. Seek immediate medical attention, preferably from an ophthalmologist.

After swallowing:

If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, place on the left side with head down to prevent aspiration of liquid into the lungs. If symptoms develop or persist, seek medical advice/attention.

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Skin contact may result in redness, pain, burning and inflammation.

Eye contact may result in irritation, redness, pain, inflammation, itching, burning, tearing, corneal damage and loss of vision.

Inhalation exposure may cause allergy, asthma symptoms or breathing difficulties. Symptoms may include cough, chronic phlegm, shortness of breath, wheezing and chest tightness. Symptoms may be delayed.

Inhalation may have adverse effects on the respiratory tract. Symptoms may include cough, breathing difficulties, sore throat and inflammation of the mucous membrane lining the respiratory tract.

Delayed symptoms and effects:

Effects are dependent on exposure (dose, concentration, contact time).

Immediate medical attention and special treatment

Specific treatment:

In case of eye contact, seek prompt medical attention while rinsing is continued.

If respiratory symptoms persist, seek medical attention.

Notes for the doctor:

Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Water mist/fog, carbon dioxide, dry chemical or alcohol resistant foam.

Unsuitable extinguishing media:

Do not use water jet.

Specific hazards during fire-fighting:

Thermal decomposition may produce irritating/toxic fumes/gases.

Special protective equipment for firefighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full-face piece operated in positive pressure mode.

Special precautions:

Avoid contact with skin, eyes, hair and clothing. Do not breathe fumes/gas/mists/aerosols/vapors/dusts.

Move containers from fire area if safe to do so. Use water spray/fog for cooling fire exposed containers.

Avoid unnecessary run-off of extinguishing media which may cause pollution.

SECTION 6: Accidental release measures

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 08.24.2020

Page 4 of 12

Patterson Multi-Purpose Enzyme Tablets

Personal precautions, protective equipment and emergency procedures:

Evacuate unnecessary personnel. Ventilate area. Extinguish any sources of ignition. Wear recommended personal protective equipment (see Section 8). Avoid contact with skin, eyes and clothing. Avoid breathing mist, vapor, dust, fume and spray. Do not walk through spilled material. Wash thoroughly after handling.

Environmental precautions:

Prevent further leakage or spillage if safe to do so. Prevent from reaching drains, sewers and waterways. Discharge into the environment must be avoided.

Methods and material for containment and cleaning up:

Do not touch damaged containers or spilled material unless wearing appropriate personal protective clothing. Stop leak if you can do it without risk. Contain and collect spillage and place in suitable container for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

Reference to other sections:

For personal protective equipment see Section 8. For disposal see Section 13.

SECTION 7: Handling and storage

Precautions for safe handling:

Use appropriate personal protective equipment (see Section 8). Use only with adequate ventilation. Avoid breathing mist/vapor/spray/dust. Do not eat, drink, smoke, or use personal products when handling chemical substances. Do not get in eyes. Avoid contact with skin and clothing. Wash affected areas thoroughly after handling. Keep away from incompatible materials (See Section 10). Keep containers tightly closed when not in use.

Conditions for safe storage, including any incompatibilities:

Store in cool, dry, well-ventilated location out of direct sunlight. Keep away from food and beverages. Protect from freezing and physical damage. Store away from heat, open flames and other sources of ignition. Keep container tightly sealed. Store away from incompatible materials (See Section 10).

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
United States(California)	Subtilisin	9014-01-1	STEL: 6E-05 mg/m ³
NIOSH	Subtilisin	9014-01-1	STEL: 6E-05 mg/m ³
ACGIH	Subtilisin	9014-01-1	Ceiling Limit: 6E-05 mg/m ³ (as active crystalline enzyme)
WEEL	Poly (ethylene oxide)	25322-68-3	8-Hour TWA: 10 mg/m ³

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

Emergency eye wash stations and safety showers should be available in the immediate vicinity of use or handling. Provide adequate ventilation to maintain the airborne concentrations of vapor, mists, and/or dusts below the applicable workplace exposure limits, while observing recognized national standards (or equivalent).

Personal protection equipment

Eye and face protection:

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 08.24.2020

Page 5 of 12

Patterson Multi-Purpose Enzyme Tablets

Use safety glasses with side shields or goggles. Consider the use of a face shield for splash protection. Use eye protection equipment that has been tested and approved by recognized national standards (or equivalent).

Skin and body protection:

Chemical resistant, impervious gloves approved by the appropriate standards. Gloves must be inspected prior to use. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. Avoid skin contact with used gloves. Appropriate techniques should be used to remove used gloves and contaminated clothing. Full body protection should be worn. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Ensure that all personal protective equipment is approved by recognized national standards (or equivalent).

Respiratory protection:

If engineering controls do not maintain airborne concentrations below the applicable workplace exposure limits, or to an acceptable level (if exposure limits have not been established), a respirator approved by recognized national standards (or equivalent) must be worn.

General hygienic measures:

When handling chemical products, do not eat, drink or smoke. Wash hands after handling, before breaks, and at the end of the workday. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Perform routine housekeeping.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	White and brown speckled tablets
Odor	Mint
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	None
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	1.7074 g/cm ³ (14.2483 lbs/gal)
Relative density	Not determined or not available.
Solubilities	Fully miscible in water
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Product is not self-igniting
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 08.24.2020

Page 6 of 12

Patterson Multi-Purpose Enzyme Tablets

Explosive properties	Product does not present an explosion hazard
Oxidizing properties	Not determined or not available.

Other information

VOC Content	0%
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SECTION 10: Stability and reactivity

Reactivity:

Not reactive under recommended handling and storage conditions.

Chemical stability:

Stable under recommended handling and storage conditions.

Possibility of hazardous reactions:

Hazardous reactions are not anticipated under recommended conditions of handling and storage.

Conditions to avoid:

Extreme heat, open flames, hot surfaces, sparks, ignition sources and incompatible materials.

Incompatible materials:

No further relevant information available.

Hazardous decomposition products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

Acute toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Route	Result
Sodium carbonate	oral	LD50 Rat: 4090 mg/kg
	inhalation	LC50 Rat: 2300 mg/m ³ (2 hour)
Subtilisin	oral	LD50 Rat: 1800 mg/kg
Citric acid	oral	LD50 Mouse: 5400 mg/kg
	dermal	LD50 Rat: > 2000 mg/kg
Sodium benzoate	oral	LD50 Rat: 3450 mg/kg
	inhalation	LC50 Rat: 12.2 mg/L (4 hr [Dust])
	dermal	LD50 Rabbit: >2000 mg/kg
Poly (ethylene oxide)	dermal	LD50 Rat: >2000 mg/kg
	oral	LD50 Rat: >2000 mg/kg

Skin corrosion/irritation

Assessment:

Causes skin irritation.

Product data:

No data available.

Substance data:

Name	Result
Subtilisin	Causes skin irritation.

Serious eye damage/irritation

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 08.24.2020

Page 7 of 12

Patterson Multi-Purpose Enzyme Tablets

Assessment:

Causes serious eye damage.

Product data:

No data available.

Substance data:

Name	Result
Sodium carbonate	Causes serious eye irritation.
Subtilisin	Causes serious eye damage.
Citric acid	Causes serious eye irritation.
Sodium benzoate	Irritating effect on the eyes.

Respiratory or skin sensitization**Assessment:**

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

Product data:

No data available.

Substance data:

Name	Result
Subtilisin	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

International Agency for Research on Cancer (IARC):

Name	Classification
Poly (ethylene oxide)	Not Applicable

National Toxicology Program (NTP):

Name	Classification
Poly (ethylene oxide)	Not Applicable

OSHA Carcinogens: Not applicable

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)**Assessment:**

May cause respiratory irritation.

Product data:

No data available.

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 08.24.2020

Page 8 of 12

Patterson Multi-Purpose Enzyme Tablets

Substance data:

Name	Result
Subtilisin	May cause respiratory irritation.

Specific target organ toxicity (repeated exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Information on likely routes of exposure:

Ocular, inhalation, dermal and oral.

Symptoms related to the physical, chemical and toxicological characteristics:

See section 4 of this SDS.

Other information:

No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Result
Subtilisin	EC50 Daphnia magna: 0.9 mg/L (48 hours)
Sodium benzoate	LC50 Pimephales promelas: 484 mg/L (96 h)
	EC50 Daphnia magna: 650 mg/L (48 h)
Poly (ethylene oxide)	LC50 Poecilia reticulata: 100 mg/L (96 hr)

Chronic (long-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Result
Subtilisin	EC10 Fathead minnow: 0.17 mg/L (32 days)
Sodium benzoate	NOEC Danio rerio: 10 mg/L (144 h)
Poly (ethylene oxide)	NOEC Daphnia magna: 10000 mg/L (21 days)

Persistence and degradability

Product data: No data available.

Substance data:

Name	Result
Subtilisin	Readily biodegradable (102% degradation after 29 days).
Citric acid	Readily biodegradable in water (97% degradation after 28 days).
Sodium benzoate	Readily biodegradable in water but failing the 10-day window (50%).

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 08.24.2020

Page 9 of 12

Patterson Multi-Purpose Enzyme Tablets

Name	Result
Poly (ethylene oxide)	Readily biodegradable (74.85% degradation after 28 days).

Bioaccumulative potential

Product data: No data available.

Substance data:

Name	Result
Sodium carbonate	Substance dissociates fully in water; does not bioaccumulate.
Subtilisin	Will not bioaccumulate due to low logPow value, high water solubility and fast biodegradation.
Citric acid	Low potential for bioaccumulation (BCF: 3.2 L/kg).
Sodium benzoate	Not expected to bioaccumulate (log Kow = 1.88 based on Benzoic Acid)
Poly (ethylene oxide)	BCF: 3.162 L/Kg ww

Mobility in soil

Product data: No data available.

Substance data:

Name	Result
Sodium benzoate	Expected to have very high mobility in soil.
Poly (ethylene oxide)	Koc at 20°C: 1.857

Results of PBT and vPvB assessment

Product data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

Substance data:

PBT assessment:

Sodium carbonate	PBT assessment does not apply to inorganic substances.
Subtilisin	Substance is not PBT.
Citric acid	Substance is not PBT
Sodium benzoate	The substance is not PBT.
Poly (ethylene oxide)	The substance is not PBT.

vPvB assessment:

Sodium carbonate	vPvB assessment does not apply to inorganic substances.
Subtilisin	Substance is not vPvB.
Citric acid	Substance is not vPvB
Sodium benzoate	The substance is not vPvB.
Poly (ethylene oxide)	The substance is not vPvB.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

Contaminated packages:

Not determined or not applicable.

SECTION 14: Transport information

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 08.24.2020

Page 10 of 12

Patterson Multi-Purpose Enzyme Tablets

United States Transportation of dangerous goods (49 CFR DOT)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA): All ingredients are listed or exempt.

Significant New Use Rule (TSCA Section 5): None of the ingredients are listed.

Export notification under TSCA Section 12(b): None of the ingredients are listed.

SARA Section 302 extremely hazardous substances: None of the ingredients are listed.

SARA Section 313 toxic chemicals: None of the ingredients are listed.

CERCLA: None of the ingredients are listed.

RCRA: None of the ingredients are listed.

Section 112(r) of the Clean Air Act (CAA): None of the ingredients are listed.

Massachusetts Right to Know:

497-19-8	Sodium carbonate	Not Listed
9014-01-1	Subtilisin	Not Listed
77-92-9	Citric acid	Not Listed
532-32-1	Sodium benzoate	Not Listed

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 08.24.2020

Page 11 of 12

Patterson Multi-Purpose Enzyme Tablets

25322-68-3	Poly (ethylene oxide)	Not Listed
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New Jersey Right to Know:

497-19-8	Sodium carbonate	Not Listed
9014-01-1	Subtilisin	Not Listed
77-92-9	Citric acid	Not Listed
532-32-1	Sodium benzoate	Not Listed
25322-68-3	Poly (ethylene oxide)	Not Listed

New York Right to Know:

497-19-8	Sodium carbonate	Not Listed
9014-01-1	Subtilisin	Not Listed
77-92-9	Citric acid	Not Listed
532-32-1	Sodium benzoate	Not Listed
25322-68-3	Poly (ethylene oxide)	Not Listed

Pennsylvania Right to Know:

497-19-8	Sodium carbonate	Not Listed
9014-01-1	Subtilisin	Not Listed
77-92-9	Citric acid	Not Listed
532-32-1	Sodium benzoate	Not Listed
25322-68-3	Poly (ethylene oxide)	Not Listed

California Proposition 65: None of the ingredients are listed.

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 3-0-0

HMIS: 3-0-0

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 08.24.2020

Page 12 of 12

Patterson Multi-Purpose Enzyme Tablets

Initial preparation date: 08.24.2020

End of Safety Data Sheet