SAFETY DATA SHEETS

This SDS packet was issued with item:

070909713

N/A

SAFETY DATA SHEETS

This SDS packet was issued with item:

070909713

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

071632959 075023528

Patterson Companies, Inc.

Patterson Ultrasonic Tartar & Stain Solution

Manufacturer MSDS Number: G004

SECTION 1 : Chemical Product and Company Identification

MSDS Name: Patterson Ultrasonic Tartar & Stain Solution
Manufacturer Name: Patterson Companies, Inc.
Department: General Office and Wholesale Division
Address:

1031 Mendota Heights Road
St. Paul, MN 55120

Business Phone: 651-686-1600
Business Fax: 651-686-9331
For information in North America, call: 651-686-1600
For emergencies in the US, call CHEMTREC: 800-424-9300
Manufacturer MSDS Revision Date:

4-13-10
Supersedes: 2-4-04
Supersedes: 6-5-03
Supersedes: 6-8-00
Supersedes: 2-21-97
Supersedes: 4-29-94

Synonyms:

Sulfamic Acid Solution

Product Codes:

090-9713

TOP

SECTION 2 : Hazardous Ingredients/Identity Information

Chemical Name	CAS#	% Weight	
Sulfamic Acid	5329-14-6	15%	

Hazardous Paragraph:

Corrosive

TOP

SECTION 3 : Physical And Chemical Characteristics

Physical State/Appearance:

Clear liquid

Odor:

Sweet

pH:

0.5 - 0.9

Vapor Pressure:

mm Hg: Not Determined

Vapor Density:

(Air = 1): Not Determined

Boiling Point:

214 deg F

Solubility:

In H2O: Very soluble

Specific Gravity:

(H2O = 1): 1.09 g/ml

Evaporation Point:

(Ether = 1): Not Determined

Percent Volatile:

By volume: 86%

FlashPoint:

210 deg F

TOP

SECTION 4 : Fire And Explosion Hazards

Fire:

Flammable Limits: Not determined

Flash Point:

210 deg F

Flash Point Method:

TCC

Extinguishing Media:

CO2, Dry Chemical

Fire Fighting Instructions:

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritation fumes.

Unusual Fire Hazards:

None

TOP

SECTION 5 : Health Hazards

Sulfamic Acid:

Route of Exposure:

Eye and skin contact; accidental ingestion

Potential Health Effects:

Skin Contact:

Acute: Skin irritation or burns

Chronic Health Effects:

Not known

Carcinogenicity:

Chemical Listed as Carcinogen or Potential Carcinogen: Not listed with NTP, IARC or OSHA as a suspect carcinogen.

Other Potential Health Effects:

Not known

Aggravation of Pre-Existing Conditions:

None known

OSHA Permissible Exposure Limit: None
ACGIH Threshold Exposure Limit: None
Other Exposure Limit Used: None

Sulfamic Acid:

Skin Effects:

Rabbit dermal 500 mg/24 hr.

Ingestion Effects:

Oral LD50 for Sulfamic Acid is 3160 mg/kg

Irritation:

Produced severe irritation.

Notes:

0

TOP

SECTION 6 : Emergency And First Aid Procedures

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes. Obtain medical attention if irritation continues.

Skin Contact:

Immediately flush skin with plenty of water and soap.

Ingestion:

If swallowed seek medical advice immediately.

TOP

SECTION 7 : Reactivity Data

Chemical Stability:

Stable

Conditions to Avoid:

None

Incompatibilities with Other Materials:

Materials to Avoid: Contact with strong alkaline materials.

Hazardous Polymerization:

Will Not Occur
Conditions to Avoid: None

Hazardous Decomposition Products:

None

TOP

SECTION 8 : Precautions For Safe Handling

Spill Cleanup Measures:

Spill Management: Treat as acid spill. Use absorbent to collect material.

Storage:

Keep away from heat.

Hygiene Practices:

Do not place in unlabeled container

Waste Disposal:

This material is corrosive. Dispose of in accordance with Local, State and Federal regulations.

TOP

SECTION 9 : Control Measures

Ventilation System:

None

Hand Protection Description:

Gloves: Latex gloves; non-impervious

Eye/Face Protection:

Safety glasses

Protective Clothing/Body Protection:

None

Respiratory Protection:

None

Other Protective:

None

Exposure Limits:

OSHA Permissible Exposure Limit: None
ACGIH Threshold Exposure Limit: None
Other Exposure Limit Used: None

TOP

SECTION 10 : Other Information

MSDS Revision Date:

4-13-10
Supersedes: 2-4-04
Supersedes: 6-5-03
Supersedes: 6-8-00
Supersedes: 2-21-97
Supersedes: 4-29-94

Disclaimer:

We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Since the use of this information and these opinions and the conditions of use of the product are not within the control of Patterson Dental Company, it is the users obligation to determine the conditions of safe use of the product.

Abbreviation:

ND = Not Determined

Form MD.500 (5/92)

Patterson Companies, Inc.
Patterson Ultrasonic Tartar & Stain Solution
Manufacturer MSDS Number: G004

****
SECTION 1 : Chemical Product and Company Identification
****

MSDS Name: Patterson Ultrasonic Tartar & Stain Solution
Manufacturer Name:Patterson Companies, Inc.
Department: General Office and Wholesale Division
Address:
1031 Mendota Heights Road
St. Paul, MN 55120

Business Phone:651-686-1600
Business Fax: 651-686-9331
For information in North America, call: 651-686-1600
For emergencies in the US, call CHEMTREC: 800-424-9300
Manufacturer MSDS Revision Date:
4-13-10
Supersedes: 2-4-04
Supersedes: 6-5-03
Supersedes: 6-8-00
Supersedes: 2-21-97
Supersedes: 4-29-94
Synonyms:
Sulfamic Acid Solution
Product Codes:
090-9713

****
SECTION 2 : Hazardous Ingredients/Identity Information
****
Chemical Name
Sulfamic Acid CAS#
5329-14-6 % Weight
15%

Hazardous Paragraph:
Corrosive

****
SECTION 3 : Physical And Chemical Characteristics
****

Physical State/Appearance:
Clear liquid
Odor:
Sweet
pH:
0.5 - 0.9
Vapor Pressure:

mm Hg: Not Determined
Vapor Density:
(Air = 1): Not Determined
Boiling Point:
214 deg F
Solubility:
In H2O: Very soluble
Specific Gravity:
(H2O = 1): 1.09 g/ml
Evaporation Point:
(Ether = 1): Not Determined
Percent Volatile:
By volume: 86%
FlashPoint:
210 deg F

****
SECTION 4 : Fire And Explosion Hazards
****

Fire:
Flammable Limits: Not determined
Flash Point:
210 deg F
Flash Point Method:
TCC
Extinguishing Media:
CO2, Dry Chemical
Fire Fighting Instructions:
Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritation fumes.
Unusual Fire Hazards:
None

****
SECTION 5 : Health Hazards
****

Sulfamic Acid:
Route of Exposure:
Eye and skin contact; accidental ingestion
Potential Health Effects:
Skin Contact:
Acute: Skin irritation or burns
Chronic Health Effects:
Not known
Carcinogenicity:
Chemical Listed as Carcinogen or Potential Carcinogen: Not listed with NTP, IARC or OSHA as a suspect carcinogen.
Other Potential Health Effects:
Not known
Aggravation of Pre-Existing Conditions:
None known
OSHA Permissible Exposure Limit: None
ACGIH Threshold Exposure Limit: None
Other Exposure Limit Used: None

Sulfamic Acid:
Skin Effects:
Rabbit dermal 500 mg/24 hr.

Ingestion Effects:
Oral LD50 for Sulfamic Acid is 3160 mg/kg
Irritation:
Produced severe irritation.
Notes:
0

****
SECTION 6 : Emergency And First Aid Procedures
****

Eye Contact:
Immediately flush eyes with plenty of water for at least 15 minutes.
Obtain medical attention if irritation continues.
Skin Contact:
Immediately flush skin with plenty of water and soap.
Ingestion:
If swallowed seek medical advice immediately.

****
SECTION 7 : Reactivity Data
****

Chemical Stability:
Stable
Conditions to Avoid:
None
Incompatibilities with Other Materials:
Materials to Avoid: Contact with strong alkaline materials.
Hazardous Polymerization:
Will Not Occur
Conditions to Avoid: None
Hazardous Decomposition Products:
None

****
SECTION 8 : Precautions For Safe Handling
****

Spill Cleanup Measures:
Spill Management: Treat as acid spill. Use absorbent to collect material.

Storage:
Keep away from heat.
Hygiene Practices:
Do not place in unlabeled container

Waste Disposal:
This material is corrosive. Dispose of in accordance with Local, State and Federal regulations.

****
SECTION 9 : Control Measures
****

Ventilation System:

None
Hand Protection Description:
Gloves: Latex gloves; non-impervious
Eye/Face Protection:
Safety glasses
Protective Clothing/Body Protection:
None
Respiratory Protection:
None
Other Protective:
None
Exposure Limits:
OSHA Permissible Exposure Limit: None
ACGIH Threshold Exposure Limit: None
Other Exposure Limit Used: None

****
SECTION 10 : Other Information
****

MSDS Revision Date:
4-13-10
Supersedes: 2-4-04
Supersedes: 6-5-03
Supersedes: 6-8-00
Supersedes: 2-21-97
Supersedes: 4-29-94
Disclaimer:
We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Since the use of this information and these opinions and the conditions of use of the product are not within the control of Patterson Dental Company, it is the users obligation to determine the conditions of safe use of the product.
Abbreviation:
ND = Not Determined

Form MD.500 (5/92)

SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION

Product identifier used on the label:

Product Name:	**Patterson Ultra Type 4 Tartar and Stain Remover**
Product Code:	090-9713
MSDS Manufacturer Number:	G004

Other means of identification:

Synonyms:	Sulfamic Acid Solution

Recommended use of the chemical and restrictions on use:

Product Use/Restriction:	Tartar and stain removing ultrasonic solution.

Chemical manufacturer address and telephone number:

Manufacturer Name:	Patterson Dental Company
Address:	1031 Mendota Heights St. Paul, MN 55120 USA
Website:	www.pattersoncompanies.com
General Phone Number:	(800) 328-5536

Emergency phone number:

Emergency Phone Number:	Chemtrec 1-800-424-9300

SECTION 2 : HAZARD(S) IDENTIFICATION

Classification of the chemical in accordance with Â§1910.1200(d)(f):

GHS Pictograms:

Signal Word:	DANGER.
GHS Class:	Serious Eye Damage. Category 1. Skin corrosion. Category 1.
Hazard Statements:	H318 - Causes serious eye damage. H314 - Causes severe skin burns and eye damage.
Precautionary Statements:	P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P264 - Wash hands thoroughly after handling.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do not induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.
P310 - Immediately call a POISON CENTER or doctor/physician.
P321 - Specific treatment (see ... on this label).
P363 - Wash contaminated clothing before reuse.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with Local, State, Federal and Provincial regulations.

Hazards not otherwise classified that have been identified during the classification process:

Route of Exposure:	Eyes. Skin. Inhalation. Ingestion.
Potential Health Effects:	
Eye:	Corrosive. Will cause eye burns and permanent tissue damage.
Skin:	Severely irritating; may cause permanent skin damage.
Inhalation:	May cause severe respiratory system irritation.
Ingestion:	Harmful if swallowed. Corrosive to the gastrointestinal tract.
Chronic Health Effects:	Prolonged skin contact causes burns. Repeated or prolonged inhalation may cause toxic effects.
Signs/Symptoms:	Depending on solution concentration, material may be corrosive to skin, mucous membranes and eyes. Vapors may cause respiratory irritation.
Target Organs:	Eyes. Skin. Respiratory system. Digestive system.
Aggravation of Pre-Existing Conditions:	May aggravate pre-existing respiratory disorders, allergy, eczema, or skin conditions.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

Chemical Name	CAS#	Ingredient Percent	EC Num.
Sulfamic Acid 99.8% Technical Grade	5329-14-6	5 - 10 by weight	

Notes : The remaining components of this product are non-hazardous or are in a small enough quantity as to not meet regulatory thresholds for disclosure.

SECTION 4 : FIRST AID MEASURES

Description of necessary measures:

Eye Contact:	Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Remove contacts if present and easy to do. Continue rinsing. Get medical attention, if irritation or symptoms of overexposure persists.
Skin Contact:	Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.
Ingestion:	If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

SECTION 5 : FIRE FIGHTING MEASURES

Suitable and unsuitable extinguishing media:

Suitable Extinguishing Media:	Use alcohol resistant foam, carbon dioxide, dry chemical, or water fog or spray when fighting fires involving this material.

Special protective equipment and precautions for fire-fighters:

Protective Equipment:	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA Ratings:

NFPA Health:	3
NFPA Flammability:	1
NFPA Reactivity:	2

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personnel Precautions:	Evacuate area and keep unnecessary and unprotected personnel from entering the spill area. Use proper personal protective equipment as listed in section 8.

Environmental precautions:

Environmental Precautions:	Avoid runoff into storm sewers, ditches, and waterways.

Methods and materials for containment and cleaning up:

Methods for containment:	Contain spills with an inert absorbent material such as soil or sand. Prevent from spreading by covering, diking or other means. Provide ventilation.
Methods for cleanup:	Clean up spills immediately observing precautions in the protective equipment section. Provide ventilation.

SECTION 7 : HANDLING and STORAGE

Precautions for safe handling:

Handling:	Corrosive. Use proper personal protective equipment as listed in section 8. Use with adequate ventilation. Avoid breathing vapor and contact with eyes, skin and clothing. Wash hands thoroughly after handling.
Hygiene Practices:	Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist.

Conditions for safe storage, including any incompatibilities:

Storage:	Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, and incompatible substances. Keep container tightly closed when not in use. Keep only in the original, corrosive resistant container and store locked up.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Guideline ACGIH:	Exposure limits are not established
Guideline OSHA:	Exposure limits are not established

Appropriate engineering controls:

Engineering Controls:	Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

Individual protection measures:

Eye/Face Protection:	Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.
Skin Protection Description:	Chemical-resistant gloves and chemical goggles, face-shield and synthetic apron or coveralls should be used to prevent contact with eyes, skin or clothing.

Respiratory Protection:	A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
Other Protective:	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

PPE Pictograms:

SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES:

Physical State:	Liquid.
Color:	Clear
Odor:	Sweet.
Odor Threshold:	Not determined.
Boiling Point:	214°F (101°C)
Melting Point:	Not determined.
Specific Gravity:	1.09 (Ref: water = 1).
Solubility:	Very soluble.
Vapor Density:	Not determined.
Vapor Pressure:	Not determined.
Percent Volatile:	86%
Evaporation Rate:	Not determined.
pH:	0.3 - 0.7
Viscosity:	Not determined.
Coefficient of Water/Oil Distribution:	Not determined.
Flammability:	Not determined.
Flash Point:	210 °F (99°C)
Flash Point Method:	Tag Closed Cup (T.C.C).
Lower Flammable/Explosive Limit:	Not determined.
Upper Flammable/Explosive Limit:	Not determined.
Auto Ignition Temperature:	Not determined.
Oxidizing Properties:	Not determined.

VOC Content: Not determined.

SECTION 10 : STABILITY and REACTIVITY

Chemical Stability:

Chemical Stability: Stable under normal temperatures and pressures.

Possibility of hazardous reactions:

Hazardous Polymerization: Will not occur.

Conditions To Avoid:

Conditions to Avoid: Avoid contact with incompatible materials.

Incompatible Materials:

Incompatible Materials: Strong acids.

SECTION 11 : TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

Sulfamic Acid 99.8% Technical Grade :

Eye: Administration into the eye - Rabbit Standard Draize test: 20 mg [Moderate]
Administration into the eye - Rabbit Standard Draize test: 250 ug/24H [Severe] (RTECS)

Ingestion: Oral - Rat LD50 - Lethal dose, 50 percent kill: 3160 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicity:

Ecotoxicity: No ecotoxicity data was found for the product.

Environmental Fate: No environmental information found for this product.

SECTION 13 : DISPOSAL CONSIDERATIONS

Description of waste:

Waste Disposal: Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

SECTION 14 : TRANSPORT INFORMATION

Notes : The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment.

SECTION 15 : REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product:

Sulfamic Acid 99.8% Technical Grade :

TSCA Inventory Status: Listed

Canada DSL: Listed

SECTION 16 : ADDITIONAL INFORMATION

HMIS Health Hazard:	3
HMIS Fire Hazard:	1
HMIS Reactivity:	2
HMIS Personal Protection:	X
Other Information:	HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). The customer is responsible for determining the appropriate PPE to be used for the task. The National Fire Protection Association (NFPA) rating system is based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. NFPA hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. NFPA hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. The NFPA system is intended to be interpreted and applied only by properly trained individuals to identify fire, health, and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

NFPA

HMIS

Health Hazard	**3**
Fire Hazard	**1**
Reactivity	**2**
Personal Protection	**X**

SDS Revision Date:	May 01, 2015
MSDS Revision Notes:	Supercedes MSDS 7/30/2014
MSDS Author:	Regulatory department
Disclaimer:	We believe that the information contained herein is current as of the date of this Safety Data Sheet. Since the use of this information and these opinions and the conditions of use of the product are not within our control, it is the user's obligation to determine the conditions of safe use of the product.

SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION

Product identifier used on the label:

Product Name:	**Patterson Ultra Type 4 Tartar and Stain Remover**
Product Code:	090-9713
SDS Manufacturer Number:	G004

Other means of identification:

Synonyms:	Sulfamic Acid Solution

Recommended use of the chemical and restrictions on use:

Product Use/Restriction:	Tartar and stain removing ultrasonic solution.

Chemical manufacturer address and telephone number:

Manufacturer Name:	Patterson Dental Company
Address:	1031 Mendota Heights St. Paul, MN 55120 USA
Website:	www.pattersoncompanies.com
General Phone Number:	(800) 328-5536

Emergency phone number:

Emergency Phone Number:	Chemtrec 1-800-424-9300

SECTION 2 : HAZARD(S) IDENTIFICATION

Classification of the chemical in accordance with CFR 1910.1200(d)(f):

GHS Pictograms:

Signal Word:	DANGER.
GHS Class:	Serious Eye Damage. Category 1. Skin corrosion. Category 1.
Hazard Statements:	H318 - Causes serious eye damage. H314 - Causes severe skin burns and eye damage.
Precautionary Statements:	P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P264 - Wash hands thoroughly after handling. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do not induce vomiting. P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. 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. P310 - Immediately call a POISON CENTER or doctor/physician. P321 - Specific treatment (see ... on this label). P363 - Wash contaminated clothing before reuse. P405 - Store locked up. P501 - Dispose of contents/container in accordance with Local, State, Federal and Provincial regulations.

Hazards not otherwise classified that have been identified during the classification process:

Route of Exposure:	Eyes. Skin. Inhalation. Ingestion.
Potential Health Effects:	
Eye:	Corrosive. Will cause eye burns and permanent tissue damage.
Skin:	Severely irritating; may cause permanent skin damage.
Inhalation:	May cause severe respiratory system irritation.
Ingestion:	Harmful if swallowed. Corrosive to the gastrointestinal tract.
Chronic Health Effects:	Prolonged skin contact causes burns. Repeated or prolonged inhalation may cause toxic effects.
Signs/Symptoms:	Depending on solution concentration, material may be corrosive to skin, mucous membranes and eyes. Vapors may cause respiratory irritation.
Target Organs:	Eyes. Skin. Respiratory system. Digestive system.
Aggravation of Pre-Existing Conditions:	May aggravate pre-existing respiratory disorders, allergy, eczema, or skin conditions.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

Chemical Name	CAS#	Ingredient Percent	EC Num.

Sulfamic Acid 99.8% Technical Grade	5329-14-6	5 - 10 by weight

Notes : The remaining components of this product are non-hazardous or are in a small enough quantity as to not meet regulatory thresholds for disclosure.

SECTION 4 : FIRST AID MEASURES

Description of necessary measures:

Eye Contact: Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Remove contacts if present and easy to do. Continue rinsing. Get medical attention, if irritation or symptoms of overexposure persists.

Skin Contact: Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes.
Get medical attention if irritation develops or persists.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

Ingestion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

SECTION 5 : FIRE FIGHTING MEASURES

Suitable and unsuitable extinguishing media:

Suitable Extinguishing Media: Use alcohol resistant foam, carbon dioxide, dry chemical, or water fog or spray when fighting fires involving this material.

Special protective equipment and precautions for fire-fighters:

Protective Equipment: As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA Ratings:

NFPA Health:	3
NFPA Flammability:	1
NFPA Reactivity:	2

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personnel Precautions: Evacuate area and keep unnecessary and unprotected personnel from entering the spill area. Use proper personal protective equipment as listed in Section 8.

Environmental precautions:

Environmental Precautions: Avoid runoff into storm sewers, ditches, and waterways.

Methods and materials for containment and cleaning up:

Methods for containment: Contain spills with an inert absorbent material such as soil or sand. Prevent from spreading by covering, diking or other means. Provide ventilation.

Methods for cleanup: Clean up spills immediately observing precautions in the protective equipment section. Provide ventilation.

SECTION 7 : HANDLING and STORAGE

Precautions for safe handling:

Handling: Corrosive. Use proper personal protective equipment as listed in section 8. Use with adequate ventilation. Avoid breathing vapor and contact with eyes, skin and clothing. Wash hands thoroughly after handling.

Hygiene Practices: Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist.

Conditions for safe storage, including any incompatibilities:

Storage: Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, and incompatible substances. Keep container tightly closed when not in use. Keep only in the original, corrosive resistant container and store locked up.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Guideline ACGIH:	Exposure limits are not established
Guideline OSHA:	Exposure limits are not established

Appropriate engineering controls:

Engineering Controls:	Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

Individual protection measures:

Eye/Face Protection:	Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.
Skin Protection Description:	Chemical-resistant gloves and chemical goggles, face-shield and synthetic apron or coveralls should be used to prevent contact with eyes, skin or clothing.
Respiratory Protection:	A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
Other Protective:	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
PPE Pictograms:	

SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES:

Physical State:	Liquid.
Color:	Clear
Odor:	Sweet.
Odor Threshold:	Not determined.
Boiling Point:	214°F (101°C)
Melting Point:	Not determined.
Specific Gravity:	1.09 (Ref: water = 1).
Solubility:	Very soluble.
Vapor Density:	Not determined.
Vapor Pressure:	Not determined.
Percent Volatile:	86%
Evaporation Rate:	Not determined.
pH:	0.3 - 0.7
Viscosity:	Not determined.
Coefficient of Water/Oil Distribution:	Not determined.
Flammability:	Not determined.
Flash Point:	210 °F (99°C)
Flash Point Method:	Tag Closed Cup (T.C.C).
Lower Flammable/Explosive Limit:	Not determined.
Upper Flammable/Explosive Limit:	Not determined.
Auto Ignition Temperature:	Not determined.
Oxidizing Properties:	Not determined.
VOC Content:	Not determined.

SECTION 10 : STABILITY and REACTIVITY

Chemical Stability:

Chemical Stability:	Stable under normal temperatures and pressures.

Possibility of hazardous reactions:

Hazardous Polymerization:	Will not occur.

Conditions To Avoid:

Conditions to Avoid:	Avoid contact with incompatible materials.

Incompatible Materials:

Incompatible Materials:	Strong acids.

SECTION 11 : TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

Sulfamic Acid 99.8% Technical Grade :

Eye:	Administration into the eye - Rabbit Standard Draize test: 20 mg [Moderate] Administration into the eye - Rabbit Standard Draize test: 250 ug/24H [Severe] (RTECS)
Ingestion:	Oral - Rat LD50 - Lethal dose, 50 percent kill: 3160 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicity:

Ecotoxicity:	No ecotoxicity data was found for the product.
Environmental Fate:	No environmental information found for this product.

SECTION 13 : DISPOSAL CONSIDERATIONS

Description of waste:

Waste Disposal:	Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

SECTION 14 : TRANSPORT INFORMATION

Notes :	The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment.

SECTION 15 : REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product:

Sulfamic Acid 99.8% Technical Grade :

TSCA Inventory Status:	Listed
Canada DSL:	Listed

SECTION 16 : ADDITIONAL INFORMATION

HMIS Ratings:

HMIS Health Hazard:	3
HMIS Fire Hazard:	1
HMIS Reactivity:	2
HMIS Personal Protection:	X

Health Hazard	**3**
Fire Hazard	**1**
Reactivity	**2**
Personal Protection	**X**

Other Information:	HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). The customer is responsible for determining the appropriate PPE to be used for the task. The National Fire Protection Association (NFPA) rating system is based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. NFPA hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. NFPA hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. The NFPA system is intended to be interpreted and applied only by properly trained individuals to identify fire, health, and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.
SDS Revision Date:	May 01, 2015
MSDS Revision Notes:	Supercedes MSDS 7/30/2014
MSDS Author:	Regulatory department
Disclaimer:	We believe that the information contained herein is current as of the date of this Safety Data Sheet. Since the use of this information and these opinions and the conditions of use of the product are not within our control, it is the user's obligation to determine the conditions of safe use of the product.

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Patterson Ultra Type 4 Tartar and Stain Remover

SECTION 1: Identification

Product identifier

Product name: Patterson Ultra Type 4 Tartar and Stain Remover
Synonyms: Sulfamic Acid Solution
Product code: 070909713

Recommended use of the product and restriction on use

Relevant identified uses: Tartar and stain removing ultrasonic solution.
Uses advised against: Not determined or not applicable.
Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:
Supplier
Patterson Companies, Inc.
1031 Mendota Heights Road
St. Paul, MN 55120
1-800-328-5536 Fax:1-651-686-9331

Emergency telephone number:

United States
CHEMTREC
Within USA and Canada: 1-800-424-9300 (CHEMTREC, 24 hours)
Outside USA and Canada: +1-703-527-3887 (CHEMTREC, 24 hours)

SECTION 2: Hazard(s) identification

GHS classification:

Serious eye damage, category 1
Skin corrosion, category 1A

Label elements

Hazard pictograms:

Signal word: Danger

Hazard statements:

H318 Causes serious eye damage
H314 Causes severe skin burns and eye damage

Precautionary statements:

P280 Wear protective gloves/protective clothing/eye protection/face protection
P260 Do not breathe dust/fume/gas/mist/vapors/spray
P264 Wash skin thoroughly after handling

P305+P351+P338+P310 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 CENTER or doctor/physician.
P321 Specific treatment (see supplemental first aid instructions on this label).
P363 Wash contaminated clothing before reuse
P304+P340+P310 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician
P301+P330+P331+P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.
P303+P361+P353+P310 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
P405 Store locked up
P501 Dispose of contents and container as instructed in Section 13

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 5329-14-6	Sulfamic Acid	5-10

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:

Not determined or not applicable.

After inhalation:

Loosen clothing as necessary and position individual in a comfortable position
Maintain an unobstructed airway
Get medical advice/attention if you feel unwell
Take precautions to ensure your own safety
Remove source of exposure or move person to fresh air and keep comfortable for breathing
Immediately call a POISON CONTROL CENTER or seek medical attention
If breathing has stopped, trained personnel should begin rescue breathing
Avoid mouth-to-mouth contact by using a barrier device
If the heart has stopped, immediately start cardiopulmonary resuscitation (CPR)

After skin contact:

Rinse affected area with soap and water
If symptoms develop or persist, seek medical attention
Avoid direct contact and wear chemical protective clothing, if necessary
Immediately take off all contaminated clothing
Gently blot or brush away excess product
Rinse skin with lukewarm, gently flowing water until medical aid is available
Immediately call a POISON CONTROL CENTER or seek medical attention
Wash contaminated clothing before re-use or discard

After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes
If symptoms develop or persist, seek medical attention
Avoid direct contact and wear chemical protective gloves, if necessary
Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids

open
Remove contact lenses, if present and easy to do so
Continue rinsing until medical aid is available
Immediately call a POISON CONTROL CENTER or seek medical attention

After swallowing:

Rinse mouth thoroughly
Seek medical attention if irritation, discomfort, or vomiting persists
Immediately call a POISON CONTROL CENTER or seek medical attention
Do not induce vomiting and rinse mouth
If vomiting occurs naturally, lie on your side, in the recovery position
If breathing has stopped, trained personnel should begin rescue breathing
Avoid mouth-to-mouth contact by using a barrier device
If the heart has stopped, immediately start cardiopulmonary resuscitation (CPR)

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Not determined or not applicable.

Delayed symptoms and effects:

Not determined or not applicable.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not applicable.

Notes for the doctor:

Not determined or not applicable.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

Special protective equipment for firefighters:

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

Special precautions:

Not determined or not applicable.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation
Ensure air handling systems are operational
Wear protective eye wear, gloves and clothing

Environmental precautions:

Should not be released into the environment
Prevent from reaching drains, sewer or waterway

Methods and material for containment and cleaning up:

Wear protective eye wear, gloves and clothing

Absorb with non-combustible liquid-binding material (sand, diatomaceus earth (clay), acid binders, universal binders)
Dispose of contents / container in accordance with local regulations

Reference to other sections:
Not determined or not applicable.

SECTION 7: Handling and storage

Precautions for safe handling:
Use only with adequate ventilation.
Avoid breathing mist or vapor.
Do not eat, drink, smoke or use personal products when handling chemical substances.

Conditions for safe storage, including any incompatibilities:
Keep container tightly sealed.
Protect from freezing and physical damage.
Store in a cool, well-ventilated area.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:
No occupational exposure limits noted for the ingredient(s).

Biological limit values:
No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:
Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls.
Biological monitoring may also be appropriate for some substances.

Appropriate engineering controls:
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Personal protection equipment

Eye and face protection:
Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:
Select glove material impermeable and resistant to the substance.
Wear appropriate clothing to prevent any possibility of skin contact.

Respiratory protection:
If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

General hygienic measures:
Avoid contact with skin, eyes and clothing.
Wash hands before breaks and at the end of work.
Wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Patterson Ultra Type 4 Tartar and Stain Remover

Appearance	Liquid. Clear.
Odor	Sweet.
Odor threshold	Not determined or not available.
pH	0.3 - 0.7
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	214°F (101°C)
Flash point (closed cup)	Not determined or not available.
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	Not determined or not available.
Relative density	Not determined or not available.
Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

Percent Volatile	86%

SECTION 10: Stability and reactivity

Reactivity:
Does not react under normal conditions of use and storage.

Chemical stability:
Stable under normal conditions of use and storage.

Possibility of hazardous reactions:
None under normal conditions of use and storage.

Conditions to avoid:
None known.

Incompatible materials:
None known.

Hazardous decomposition products:
None known.

SECTION 11: Toxicological information

Acute toxicity

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

Product data: No data available.

Substance data: No data available.

Skin corrosion/irritation

Assessment: Causes severe skin burns and eye damage

Product data:

No data available.

Substance data:

Name	Result
Sulfamic Acid	Causes skin irritation

Serious eye damage/irritation

Assessment: Causes serious eye damage

Product data:

No data available.

Substance data:

Name	Result
Sulfamic Acid	Causes serious eye irritation.

Respiratory or skin sensitization

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

Product data:

No data available.

Substance data: No data available.

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): None of the ingredients are listed.

National Toxicology Program (NTP): None of the ingredients are listed.

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

Product data:

No data available.

Substance data: No data available.

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:

No data available.

Symptoms related to the physical, chemical and toxicological characteristics:

No data available.

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
Sulfamic Acid	LC50 - Pimephales promelas (Fathead Minnow) - 14.2 mg/L - 96 h

Chronic (long-term) toxicity

Product data: No data available.

Substance data: No data available.

Persistence and degradability

Product data: No data available.

Substance data: No data available.

Bioaccumulative potential

Product data: No data available.

Substance data: No data available.

Mobility in soil

Product data: No data available.

Substance data: No data available.

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

SECTION 14: Transport information

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

Patterson Ultra Type 4 Tartar and Stain Remover

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
Additional Information	Because the mode of transportation is not under our control after initial distribution, and the labeling and regulatory requirements vary based on the mode, please refer to 49 CFR for the specific information.

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

5329-14-6	Sulfamic Acid	Listed

Significant New Use Rule (TSCA Section 5): Not determined.

Export notification under TSCA Section 12(b): Not determined.

SARA Section 302 extremely hazardous substances: Not determined.

SARA Section 313 toxic chemicals:

5329-14-6	Sulfamic Acid	Not Listed

CERCLA: Not determined.

RCRA: Not determined.

Section 112(r) of the Clean Air Act (CAA): Not determined.

Massachusetts Right to Know:

5329-14-6	Sulfamic Acid	Not Listed

New Jersey Right to Know:

5329-14-6	Sulfamic Acid	Listed

New York Right to Know:

5329-14-6	Sulfamic Acid	Listed

Pennsylvania Right to Know:

5329-14-6	Sulfamic Acid	Not Listed

California Proposition 65: None of the ingredients are listed.

Patterson Ultra Type 4 Tartar and Stain Remover

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: 3-1-2

HMIS: 3-1-2-X

Initial preparation date: 11.27.2017

End of Safety Data Sheet