

SECTION 1: Identification of the substance/mixture and of the company**1.1 Product identifier**

- Product Name: **Synergize™**
- Product Part Number(s): **403381, 409038, 433600, 433602, 433605, 434700**
- Brand(s): Preserve International
- ABN(s): Synergize Cool™, Synergize NF™, Synergize NP™, Synergize NP-NF™

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Use of the substance/preparation: Disinfectant
- Uses advised against: It is a violation of Federal law to use this product in a manner inconsistent with its label. Read the entire label before use and follow all Directions for Use, Use Restrictions, and Precautions.

1.3 Details of the supplier of the safety data sheet

- Manufactured By: Preserve International
- Address: 944 Nandino Blvd.
Lexington, Kentucky 40511
USA

Preserve International is a wholly-owned subsidiary of Neogen Corporation.

- Telephone: 859/254-1221 • 800/627-8829
- Email: Inform@neogen.com

1.4 Emergency telephone numbers

- Medical: 1-800-498-5743 (United States and Canada)
- Spill: 1-800-424-9300 (United States and Canada)

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture**

Classification (29 CFR 1910.1200)

- Acute toxicity, oral, Cat. 4, H302, Skin corrosion, Cat. 1B, H314, Serious eye damage, Cat. 1, H318, Sensitization, skin, Cat. 1, H317, Sensitization, respiratory, Cat. 1, H334; Aspiration hazard, Cat. 2, H305, Hazardous to the aquatic environment, acute hazard, Cat. 1, H400

Classification (WHMIS 2015 HPR)

- Acute toxicity, oral, Cat. 4, H302, Skin corrosion, Cat. 1B, H314, Serious eye damage, Cat. 1, H318, Sensitization, skin, Cat. 1, H317, Sensitization, respiratory, Cat. 1, H334; Aspiration hazard, Cat. 2, H305, Hazardous to the aquatic environment, acute hazard, Cat. 1, H400

2.2 Label elements

GHS05



GHS07



GHS08



GHS09

- Signal Word (OSHA/HPR): **DANGER**
- Signal Word (EPA-FIFRA): **DANGER**
- Symbols: GHS05, GHS07, GHS08, GHS09
- Hazard phrases
 - Harmful if swallowed.
 - Causes severe skin burns and eye damage.
 - May cause an allergic skin reaction.
 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 - May be fatal if swallowed and enters airways.
 - Very toxic to aquatic life.
- Precautionary phrases
 - Do not breathe mist/fumes/vapors/spray.
 - Wash hands thoroughly after handling.
 - Do not eat, drink or smoke when using this product.
 - Use only outdoors or in a well-ventilated area.
 - Contaminated work clothing should not be allowed out of the workplace.
 - Avoid release to the environment.

SECTION 2: Hazards identification (continued)

Wear protective gloves/protective clothing/eye protection/face protection.
 In case of inadequate ventilation wear respiratory protection.
 If swallowed: Immediately call a poison center or doctor/physician.
 Rinse mouth. Do NOT induce vomiting.
 If on skin (or hair): Immediately remove all contaminated clothing. Rinse skin with water/shower.
 If skin irritation or rash occurs: Get medical advice/attention.
 Wash contaminated clothing before reuse.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If inhaled: Remove person to fresh air and keep comfortable for breathing.
 Immediately call a poison center or doctor/physician.
 Collect spillage. Hazardous to the aquatic environment.
 Store locked up.
 Dispose of contents/container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

- Keep out of reach of children and animals.

SECTION 3: Composition/information on ingredients

3.1 Mixtures

This product is a mixture of the substances listed below with the addition of non-hazardous materials

Chemical	Concentration*	CAS No.	H-Statements	Symbols
Quaternary ammonium compounds	20.0-30.0%	68391-01-5	H302, H314, H400	GHS05, GHS07, GHS09
Glutaraldehyde	5.0-10.0%	111-30-8	H301, H314, H317, H331, H334, H400	GHS05, GHS06, GHS08, GHS09
Phosphoric acid	1.0-5.0%	7664-38-2	H314, H318	GHS05
Pine oil	1.0-2.0%	8002-09-3	H226, H305, H315, H317, H411	GHS02, GHS07, GHS08

*The exact percentage (concentration) of composition has been withheld as a trade secret.
 Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.
 For full text of H-Statements, see Section 16.

SECTION 4 First aid measures

4.1 Description of first aid measures

- General
 - Have safety data sheet, product container, or label with you when calling 1-800-498-5743, a poison control center, or doctor.
 - In case of doubt, or when symptoms persist, seek medical attention.
 - When used as directed, the hazards associated with this product can be minimized, but like any other chemical, it should be treated with care, respect, and common sense.
- Contact with skin
 - Causes severe skin burns. May cause an allergic skin reaction.
 - Immediately remove contaminated clothing.
 - Wash affected area with plenty of soap and water/shower.
 - If skin irritation or rash occurs: Call 1-800-498-5743, a poison control center, or doctor for medical advice/attention.
 - Contaminated clothing should be laundered before reuse.
- Contact with eyes
 - Causes serious eye damage.
 - If substance has gotten into eyes, rinse with plenty of water for at least 15 minutes.
 - Irrigate eyes thoroughly while lifting eyelids.
 - Remove contact lenses, if present and easy to do. Continue rinsing.
 - If eye irritation persists: Call 1-800-498-5743, a poison control center, or doctor for medical advice/attention.

SECTION 4 First aid measures (continued)

- Ingestion
Harmful if swallowed.
May be fatal if swallowed and enters airways.
If swallowed, rinse mouth with water.
Do NOT induce vomiting.
Immediately call 1-800-498-5743, a poison control center, or doctor for medical advice/attention.
- Inhalation
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
If experiencing respiratory symptoms: Call 1-800-498-5743, a poison control center, or doctor for medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

- The most important known symptoms are described in the labeling (see Section 2.2) and/or in Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically.
- Further information is available from the ProPharma Emergency Number (1-800-498-5743) provided in this document.

SECTION 5: Fire-fighting measures

5.1 Suitable (and unsuitable) extinguishing media

- In case of fire: use water spray, foam, carbon dioxide or dry agent for extinction.
- If water is to be used to fight fire, dike and collect runoff.

5.2 Special hazards arising from the substance or mixture

- Smoke from fires is toxic. Take precautions to protect personnel from exposure.
- Material is lighter than water and a fire may be spread by the use of water.
- Containers may explode in the heat of a fire.
- Vapors may be heavier than air.
- Avoid excess runoff from fire-fighting from entering lakes, streams, ponds, or other open waters.
- See Section 10 for additional Stability and Reactivity information.

5.3 Advice for firefighters

- Flammable liquid and vapor.
- Keep container(s) exposed to fire cool by spraying with water.
- Wear chemical protection suit and positive-pressure breathing apparatus.
- Wear protective clothing as per Section 8.

5.4 Hazardous Combustion Products

- Hazardous combustion products include carbon monoxide, phosphine, oxides of phosphorus, and hydrogen gas.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Spills should be cleaned up immediately to avoid slip and fall accidents and injuries.
- Wear personal protective clothing, and observe precautions outlined Section 8.
- Evacuate personnel not directly involved in spill clean-up.
- Shut off source of leak/release, if safe to do so.
- Shut down and/or remove equipment in spill area, if safe to do so.
- Avoid breathing vapors.
- Wash thoroughly after dealing with spillage.

6.2 Environmental Precautions

- Do not allow to enter public sewers and watercourses.
- Avoid releasing to the environment.

6.3 Methods and material for containment and cleaning up

- Material is lighter than water and may be spread by the use of water.
- Absorb spillage in inert material and shovel up.
- Dike large spills as necessary.

SECTION 6: Accidental release measures (continued)

- Place in sealable containers and label them.
- Ventilate the area and wash spill site after material pick-up is complete.
- Dispose of contaminated materials and wastes in accordance with local/national/international regulations.

6.4 Reference to other sections

- See Section 7 for storage. For disposal, see Section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Do not breathe vapor/mist/spray/fumes.
- Avoid contact with skin, eyes, and clothing.
- Do not eat, drink, smoke, or apply cosmetics when using this product.
- Ensure adequate ventilation.
- Eyewash bottles should be available.
- Use personal protective equipment, as required by label instructions and/or workplace procedures.
- Wash hands thoroughly after using this product.
- Do not reuse or refill product container. See label or Section 13 for disposal instructions.

7.2 Conditions for safe storage, including any incompatibilities

- Store locked up.
- Do not contaminate water, food, or feed by storage or disposal.
- Keep container tightly closed in a cool, dry, well-ventilated place.
- Carefully reseal opened containers and store upright to prevent leakage.
- Store away from metals, strong oxidizing agents, excessive heat, and ignition sources.
- Incompatible with strong oxidizing agents. Reacts with most common metals to produce hydrogen gas. Corrosive to many materials including leather, rubber, and many organics.

7.3 Specific end use(s)

- Disinfectant

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING, AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Components with workplace control parameters

Component	CAS No.	Value	Control Parameters	Basis
Glutaraldehyde	111-30-8	Ceiling	0.2 ppm, 0.8 mg/m ³	USA-NIOSH Recommended Exposure Limits
Phosphoric acid	7664-38-2	TWA	1 mg/m ³	USA-OSHA Table Z-1 Limits for Air Contaminants - 1910.1000
		TWA	1 mg/m ³	USA-NIOSH Recommended Exposure Limits
		STEL	3 mg/m ³	USA-NIOSH Recommended Exposure Limits
		TWA	1 mg/m ³	USA-ACGIH Threshold Limit Values (TLV)
		STEL	3 mg/m ³	USA-ACGIH Threshold Limit Values (TLV)

8.2 Exposure controls

- Eyewash bottles should be available.
- Wear air-purifying full-face respirators with organic vapor cartridges tested and approved under MSHA/NIOSH standards for chemicals.
- Handle with gloves. Wash the outside of gloves before removing. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good industrial hygiene. Wash and dry hands.
- Wear safety glasses and face shield (8-inch minimum) or chemical safety goggles approved under appropriate government standards such as ANSI or MSHA/NIOSH.

SECTION 8: Exposure controls/personal protection (continued)

- Handlers must wear a long-sleeved shirt, long pants, and shoes plus socks.
- Wear a chemical-resistant apron when cleaning equipment, mixing, or loading.
- Personal Protective Equipment (PPE) must be inspected before use. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables use detergent and hot water. Keep and wash PPE separately from other laundry.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Clear liquid
Odor:	Mild pine odor
pH:	4.5 – 5.25
Melting Point/Range:	No data available
Boiling Point/Range:	No data available
Flash Point (Test Method):	No data available
Evaporation Rate:	No data available
Flammable Limits (% in air):	No data available
Flammability:	Extremely flammable aerosol
Vapor Pressure:	No data available
Vapor Density:	No data available
Specific Gravity:	1.02 – 1.05
Relative Density:	8.5 – 8.75 lbs/gallon
Solubility in water:	Completely soluble
Partition Coefficient (n-Octanol/Water):	No data available
Autoignition Temperature:	Product is not self-igniting
Viscosity:	No data available
Explosive Properties:	No data available
Oxidizing Properties:	Product is not classified as an oxidizer

9.2 Other information

- No additional data available

SECTION 10: Stability and reactivity

10.1 Reactivity

- No information available

10.2 Chemical stability

- Considered stable under recommended storage and handling conditions

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose.
- Reacts with most common metals to produce hydrogen gas.

10.4 Conditions to avoid

- Ignition sources, excessive heat

10.5 Incompatible materials

- Strong oxidizing agents, metals

10.6 Hazardous decomposition products

- Carbon monoxide, phosphine, oxides of phosphorus, and hydrogen gas

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- Causes burns by all exposure routes. May cause central nervous system depression.
- Contact with skin
Causes severe skin burns. May cause an allergic skin reaction.
ATEmix=31,250 mg/kg (dermal)
Based on available data, the acute toxicity classification criteria are not met.
- Contact with eyes
Causes serious eye damage/irritation.

SECTION 11: Toxicological information (continued)

- Ingestion
Harmful if swallowed. May be fatal if swallowed and enters airways.
ATEmix=1,515 mg/kg (oral)
- Inhalation
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Inhalation of high concentrations may cause coughing and shortness of breath. May cause chemical burns to the respiratory tract.
ATEmix=9.8 mg/L (inhalation – vapors)
Based on available data, the acute toxicity classification criteria are not met.
- Carcinogenicity
Not listed in the National Toxicology Program (NTP) 13th Report on Carcinogens.
Not listed in the International Agency for Research on Cancer (IARC) Monographs, Volumes 1-112.
Not listed in OSHA standard 1910.1003 Carcinogens.
- Mutagenicity
No information available
- Teratogenicity
No information available

SECTION 12: Ecological information

12.1 Toxicity

- This product is classified as hazardous to the environment under U.S. regulations, with acute and chronic effects.
- No data available.

12.2 Persistence and degradability

- No data available

12.3 Bioaccumulation potential

- No data available

12.4 Mobility in soil

- No data available

12.5 Other adverse effects

- To the best of our knowledge, the properties of this product have not been fully evaluated.
- An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

12.6 Ecological information, as required on the FIFRA label

- Do not discharge effluent containing this product directly to water. Do not contaminate water when disposing of equipment wash water or rinsate.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

- Do not contaminate water, food, or feed by storage or disposal.
- Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law.
- If wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency, or Hazard Waste representative at nearest EPA Regional Office for guidance.
- Do not discharge into drains or the environment, dispose to an authorized hazardous waste collection point.
- Do not reuse or refill empty containers.

SECTION 14: Transport information

14.1 Domestic surface transport (US DOT)

- Proper Shipping Name: Disinfectant, liquid, corrosive, n.o.s. (Phosphoric acid mixture)
- DOT UN No.: UN1903
- DOT Hazard Class: 8
- DOT Packing Group: III
- DOT Label(s): Corrosive
- Special Provisions: Not applicable

SECTION 14: Transport information (continued)

14.2 Ocean/Sea (IMO/IMDG)

- Proper Shipping Name: DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (PHOSPHORIC ACID MIXTURE)
- IMDG UN No.: UN1903
- IMDG Hazard Class: 8
- IMDG Packing Group: III
- IMDG Label(s): Corrosive
- Special Provisions: UN Specification packagings must meet packing group II performance standards.

14.3 Air (ICAO/IATA)

- Proper Shipping Name: Disinfectant, liquid, corrosive, n.o.s. (Phosphoric acid mixture)
- ICAO UN No.: UN1903
- ICAO Hazard Class: 8
- ICAO Packing Group: III
- ICAO Label(s): Corrosive
- Special Provisions: UN Specification packagings must meet packing group II performance standards.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under Federal pesticide law (FIFRA). These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

KEEP OUT OF REACH OF CHILDREN

DANGER

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Corrosive. Causes irreversible eye damage and skin burns. May be fatal if inhaled. Harmful if swallowed or absorbed through skin. Do not get in eyes, on skin or on clothing. Do not breathe spray mist. Wear goggles or face shield and. Wear a dust/mist/filtering respirator (MSHA/NIOSH approval number TC-21C) or a NIOSH-approved respirator with any N, P, R, or HE prefilter. Wear protective clothing and rubber gloves. Prolonged or frequent repeated skin contact may cause allergic reaction in some individuals. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

EPA Registration Number: 66171-7

15.2 United States Regulatory Information

EPA SARA Title III Classifications

SARA 302 (EHS) Reportable Quantity (RQ):

No components listed

Section 311/312 Hazard Classes:

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	Yes
Reactive Hazard	No

Section 313 Toxic Chemicals:

Phosphoric acid, CAS No. 7664-38-2

CERLCA Reportable Quantity (RQ):

Phosphoric acid, CAS No. 7664-38-2 = 5,000 lbs.

RCRA Hazardous Waste Classification (40 CFR 261):

No components subject to reporting requirements

Clean Air Act (CAA) 112(r) Threshold Quantity (TQ):

No components subject to reporting requirements

Toxic Substance Control Act (TSCA):

This product is exempt from TSCA, subject to FIFRA

SECTION 15: Regulatory information (continued)

State Right-to-Know

Massachusetts

Phosphoric acid, CAS No. 7664-38-2

Glutaraldehyde, CAS No. 111-30-8

Pine oil, CAS No. 8002-09-3

New Jersey

Phosphoric acid, CAS No. 7664-38-2

Glutaraldehyde, CAS No. 111-30-8

Pennsylvania

Phosphoric acid, CAS No. 7664-38-2

Glutaraldehyde, CAS No. 111-30-8

California Prop 65

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

15.3 Canadian Regulatory Information

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR). The labelling may differ subject to the requirements of the Food and Drugs Act (FDA).

WHMIS Classification: Exempt

DIN: 02260336

Inventory Status

Domestic Substances List (DSL)

Listed

Non-Domestic Substances List (NDSL)

Not listed

SECTION 16: Other information

Document Number: SDS-1100.00, Synergize

Date of Preparation: February 8, 2017

Revision: Rev. 00

Replaces: New issue

Text not given with phrase codes where they are used elsewhere in this safety data sheet: H226: Flammable liquid and vapor. H301: Toxic if swallowed. H302: Harmful if swallowed. H305: May be fatal if swallowed and enters airways. H314: Causes severe skin burns and eye damage. H315: Causes skin irritation. H317: May cause an allergic skin reaction. H318: Causes serious eye damage. H319: Causes serious eye irritation. H331: Toxic if inhaled. H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335: May cause respiratory irritation. H372: Causes damage to organs with prolonged or repeated exposure. H400: Very toxic to aquatic life. H411: Toxic to aquatic life with long-lasting effects.

For non-emergency (e.g. current product information)
Call: **1-800-621-8829**

Synergize™ is a Trademark of Preserve International and Neogen Corporation.

This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Preserve International and Neogen Corporation shall not be held liable for any damage resulting from handling or from contact with the above product. These suggestions should not be confused with state, municipal or insurance requirements, and constitute NO WARRANTY.