



SAFETY DATA SHEET (SDS)

407 New Sanford Road
La Vergne, TN 37086

Section 1. Product And Company Identification

Product Name: Pro Advantage Glutaraldehyde 14-Day

Product Use: Liquid Sterilant/High Level Disinfectant

Manufactured for: NDC, Inc.
407 New Sanford Road
La Vergne, TN 37086
U.S.A.

Information Phone Number: 1-615-366-3230 (Customer Service)

Chemical Emergency Phone Number (Chemical Spills, Leaks, Fire, Exposure or Accident only):
CHEMTREC 1-800-424-9300 (in the US) 1-703-527-3887 (Outside the US)

SDS Date Of Preparation/Revision: 12/16/2014

Section 2. Hazards Identification

GHS / HAZCOM 2012 Classification:

Eye Irritation Category 2A

Respiratory Sensitization Category 1

Label Elements

Warning!



Hazard Phrases

Causes serious eye irritation.

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

Prevention:

Wash thoroughly after handling.

Wear eye protection and face protection.

Avoid breathing mist, vapors or spray.

In case of inadequate ventilation wear respiratory protection.

Response:

IF INHALED: remove person to fresh air and keep comfortable for breathing.

If experiencing respiratory symptoms: Call a POISON CENTER.

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

If eye irritation persists: Get medical attention.

Storage and Disposal

Dispose of contents and container in accordance with local and national regulations.

Section 3. Composition/Information On Ingredients

Component	CAS No.	Amount
Water and non-hazardous ingredients	Mixture	97.4%
Glutaraldehyde	111-30-8	2.6%

Section 4. First Aid Measures

Eye Contact: Hold eye open and rinse slowly and gently with water for 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Seek medical attention if irritation persists.

Skin Contact: Wash thoroughly with soap and water. If skin irritation develops, seek medical attention.

Inhalation: Move to fresh air. If ill effects occur, seek immediate medical attention.

Ingestion: If swallowed, get immediate medical advice by calling a Poison Control Center or hospital emergency room. If advice is not available, take victim and product container to the nearest emergency treatment center or hospital. Do not induce vomiting unless directed to do so by medical personnel. If the victim is alert, rinse their mouth with water. Do not attempt to give anything by mouth to an unconscious person.

Note to physician: Probable mucosal damage may contraindicate the use of gastric lavage.

Most important symptoms and effects, acute and delayed: May cause severe eye irritation. May cause respiratory tract irritation. Ingestion of glutaraldehyde may cause nervous system effects including nausea, dizziness, headache, and drowsiness. Repeated inhalation of vapors may cause asthmatic symptoms in some individuals.

Indication of immediate medical attention and special treatment, if needed: Treat symptomatically.

Section 5. Fire Fighting Measures

Suitable (and Unsuitable) Extinguishing Media: Use any media that is suitable for the surrounding fire.

Specific Hazards Arising from the Chemical: None known.

Special Protective Equipment and Precautions for Fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

Section 6: Accidental Release Measures

Personal precautions, Protective equipment, and Emergency procedures: Wear appropriate protective clothing and equipment.

Methods and Materials for Containment and Cleaning up: Stop leak if it is safe to do so and move containers from the spill area. Collect material with an inert absorbent material and place in appropriate, labeled container for disposal.

Section 7. Handling and Storage

Precautions for Safe Handling: Avoid breathing vapors or mists. Avoid contact with eyes, skin and clothing. Wash thoroughly with soap and water after handling. Avoid contamination of food. Use in a well-ventilated area in closed containers. Use in accordance with label directions.

Conditions for Safe Storage, Including any Incompatibilities: Store at room temperature. Keep containers closed.

Section 8. Exposure Controls / Personal Protection

Exposure Limits

Chemical	Exposure Limit
Glutaraldehyde	0.05 ppm Ceiling ACGIH TLV (sen)

Appropriate Engineering Controls: Use general or local exhaust ventilation as needed to maintain airborne concentrations below the occupational exposure limits.

Respiratory Protection: None under normal use conditions with adequate ventilation. For operations where exposure limits are exceeded, a NIOSH approved respirator with an organic vapor cartridge is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

Hand protection: Protective gloves such as butyl rubber or nitrile are recommended to avoid skin contact.

Eye Protection: Safety goggles recommended.

Skin Protection: Wear protective clothing as needed to avoid skin contact.

Hygiene measures: Suitable eye wash and washing facilities should be available in the work area.

Section 9. Physical and Chemical Properties

Appearance:	Clear, colorless liquid	Odor:	Fruity odor.
Odor Threshold:	0.038 ppm (glutaraldehyde)	pH:	3.2-4.3 inactivated, 6.5-8.5 activated
Melting/Freezing Point:	Not available	Boiling Point/Range:	100°C (212°F)
Flash Point:	Not flammable	Evaporation Rate:	Not available
Flammability: (Solid, Gas)	Not applicable	Flammability Limits:	Not applicable
Vapor Pressure:	0.3 mmHg @20°C (glutaraldehyde)	Vapor Density:	Not available
Relative Density:	>1.0	Solubilities:	Soluble in Water
Partition Coefficient: (N-Octanol/Water)	Not available	Autoignition Temperature:	Not flammable
Decomposition Temperature:	Not available	Viscosity:	Not available

Section 10. Stability and Reactivity

Reactivity: None known.

Chemical Stability: Stable.

Possibility of Hazardous Reactions: None known.

Conditions to avoid: Avoid temperatures above 100°C. Do not allow significant evaporation.

Incompatible Materials: Strong oxidizing agents, acids and bases.

Hazardous decomposition products: Thermal decomposition will produce carbon monoxide and carbon dioxide.

Section 11. Toxicological Information

Potential Health Effects:

Inhalation: Vapors may cause irritation of the nose, throat and upper respiratory tract. Repeated inhalation of glutaraldehyde vapors may cause asthmatic symptoms in some individuals, including cough, wheezing and difficulty breathing.

Skin Contact: May cause skin irritation. No signs of toxicity were observed in a dermal toxicity study in rabbits. Irritating in a primary irritation study with rabbits, effects reversed in 72 hrs. Negative in a skin sensitization study with guinea pigs.

Eye Contact: Causes severe irritation with possible burns.

Ingestion: Do not ingest. If swallowed, may irritate mouth, throat and intestinal tract. Ingestion of glutaraldehyde may cause nervous system effects including nausea, dizziness, headache, and drowsiness.

Chronic Hazards: No adverse effects expected based on the available data.

Carcinogen: None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH, or OSHA.

Acute Toxicity Values for 2.6% Glutaraldehyde Solution:
LD50 Oral Rat 3450 mg/kg; LD50 Dermal Rabbit >2000 mg/kg

Section 12. Ecological Information

This product is classified as toxic to the aquatic environment.

Toxicity: No toxicity data available for product.

Glutaraldehyde: LC50 fathead minnow 10.8 mg/L/96 hr; EC50 daphnia magna 0.69 mg/L/48 hr; EbC50 green algae 2.64 mg/L/72 hr.

Persistence and degradability: Glutaraldehyde is readily biodegradable.

Bioaccumulative Potential: Glutaraldehyde: log Kow -0.333, potential for bioaccumulation is low

Mobility in Soil: Glutaraldehyde: highly mobile in soil.

Other Adverse Effects: None known

Section 13. Disposal Considerations

Solution Disposal: Refer to product label for disposal information. Dispose in accordance with national, state/provincial and local regulations.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. If recycling is not available, discard in accordance with hospital policy.

Section 14. Transport Information

	UN Number	UN Proper Shipping Name	Hazard Class(s)	Packing Group	Environmental Hazards
US DOT	None	Not Regulated			None
EU ADR/RID	None	Not Regulated			None
IMDG	None	Not Regulated			None
IATA/ICAO	None	Not Regulated			None

Section 15. Regulatory Information

U.S. Federal Regulations:

EPA SARA 311/312 Hazard Classification: Acute Health

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

Protection Of Stratospheric Ozone: This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

CERCLA SECTION 103: This product is not subject to CERCLA reporting requirements; however, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

California Prop 65: This product may contain a chemical known to the State of California to cause cancer or birth defects or other reproductive harm.

International Inventories

US EPA TSCA Inventory: All of the components of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory or exempt.

Canadian Environmental Protection Act: All of the components in this product are listed on the Domestic Substances List (DSL) or exempt.

Section 16. Other Information

NFPA Rating: Fire: 1 Health: 2 Instability: 0

Effective Date: 12/16/2014

Supersedes Date: 11/1/2012

Revision Summary: New GHS Formatted SDS

The information and recommendations set forth herein are taken from sources believed to be accurate as of the date of preparation, however, NDC, Inc. makes no warranty with respect to the accuracy or suitability of the recommendations, and assumes no liability to any use thereof.



SAFETY DATA SHEET (SDS)

407 New Sanford Road
La Vergne, TN 37086

Section 1. Product And Company Identification

Product Name: Pro Advantage Glutaraldehyde 14-day Powder Activator

Product Use: Liquid Sterilant/High Level Disinfectant

Manufactured for: NDC, Inc.
407 New Sanford Road
La Vergne, TN 37086
U.S.A.

Information Phone Number: 1-615-366-3230 (Customer Service)

Chemical Emergency Phone Number (Chemical Spills, Leaks, Fire, Exposure or Accident only):
CHEMTREC 1-800-424-9300 (in the US) 1-703-527-3887 (Outside the US)

SDS Date Of Preparation/Revision: 12/16/2014

Section 2. Hazards Identification

GHS / HAZCOM 2012 Classification:

Germ Cell Mutagenicity Category 2

Label Elements

Warning!



Hazard Phrases

Suspected of causing genetic defects.

Prevention:

Obtain special instructions before use.

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

Wear protective gloves, protective clothing, eye protection or face protection.

Response:

IF exposed or concerned: Get medical attention.

Storage and Disposal

Store locked up.

Dispose of contents and container in accordance with local and national regulations.

Section 3. Composition/Information On Ingredients

Component	CAS No.	Amount
Water and non-hazardous ingredients	Mixture	40-60%
Reducing Agent	Proprietary	20-50%
Inorganic phosphate	Proprietary	1-10%

Section 4. First Aid Measures

Eye Contact: Hold eye open and rinse slowly and gently with water for 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. If irritation persists, seek medical advice.

Skin Contact: Wash with soap and water. If skin irritation develops and persists, seek medical attention.

Inhalation: Move to fresh air if effects occur and seek medical attention if effects persist.

Ingestion: If swallowed, seek medical advice by calling a Poison Control Center or hospital emergency room. Do not induce vomiting. Do not attempt to give anything by mouth to an unconscious person.

Most important symptoms and effects, acute and delayed: May be irritating to eyes, skin and respiratory tract.

Indication of immediate medical attention and special treatment, if needed: Treat symptomatically.

Section 5. Fire Fighting Measures

Suitable (and Unsuitable) Extinguishing Media: Use any media that is suitable for the surrounding fire.

Specific Hazards Arising from the Chemical: None known.

Special Protective Equipment and Precautions for Fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

Section 6: Accidental Release Measures

Personal precautions, Protective equipment, and Emergency procedures: Wear appropriate protective clothing and equipment.

Methods and Materials for Containment and Cleaning up: Collect spilled powder by scooping, vacuuming or sweeping. Do not create airborne dust. Place in a container for use or disposal. Use caution as surfaces may be slippery.

Section 7. Handling and Storage

Precautions for Safe Handling: Avoid generating and breathing airborne dust. Avoid contact with eyes, skin and clothing. Wash thoroughly with soap and water after handling. Use in accordance with label directions.

Conditions for Safe Storage, Including any Incompatibilities: Store at room temperature. Avoid prolonged exposure to heat and/or humidity as this reduces product effectiveness. Keep containers closed.

Section 8. Exposure Controls / Personal Protection

Exposure Limits

Chemical	Exposure Limit
Reducing Agent	5 mg/m ³ (respirable dust), 15 mg/m ³ (total dust) TWA OSHA PEL (as PNOC)
Inorganic phosphate	5 mg/m ³ (respirable dust), 15 mg/m ³ (total dust) TWA OSHA PEL (as PNOC)

Appropriate Engineering Controls: General ventilation should be adequate for normal use. For operations where the exposure limits may be exceeded, mechanical ventilation such as local exhaust may be needed to minimize exposure.

Respiratory Protection: None under normal use conditions with adequate ventilation. For operations where the occupational exposure limits are exceeded, a NIOSH approved respirator with particulate filter is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

Hand protection: Protective gloves such as rubber or nitrile are recommended.

Eye Protection: Safety goggles recommended.

Skin Protection: Wear protective clothing as needed to avoid skin contact.

Hygiene measures: None required for normal use.

Section 9. Physical and Chemical Properties

Appearance:	White/yellow powder with a slight green tint.	Odor:	No odor.
Odor Threshold:	Not available	pH:	8.5-9.3 (1% solution)

Melting/Freezing Point:	Not available	Boiling Point/Range:	Not applicable
Flash Point:	Not flammable	Evaporation Rate:	Not applicable
Flammability: (Solid, Gas)	Not flammable	Flammability Limits:	Not applicable
Vapor Pressure:	Not applicable	Vapor Density:	Not available
Relative Density:	Not available	Solubilities:	Soluble in Water
Partition Coefficient: (N-Octanol/Water)	Not available	Autoignition Temperature:	Not flammable
Decomposition Temperature:	Not available	Viscosity:	Not available

Section 10. Stability and Reactivity

Reactivity: None known.

Chemical Stability: Stable.

Possibility of Hazardous Reactions: None known.

Conditions to avoid: None known.

Incompatible Materials: Strong oxidizing agents and strong acids.

Hazardous decomposition products: Thermal decomposition will produce carbon monoxide and carbon dioxide and sulfur and phosphorus oxides.

Section 11. Toxicological Information

Potential Health Effects:

Inhalation: May cause irritation of the nose, throat and upper respiratory tract.

Skin Contact: May cause skin irritation.

Eye Contact: May cause irritation. Eye damage is not expected.

Ingestion: Do not ingest. If swallowed, may irritate mouth, throat and intestinal tract.

Chronic Hazards: Reducing agent was negative in the AMES test but was positive in an invitro mammalian cell gene mutation assay and in an in vivo mammalian erythrocyte micronucleus test.

Carcinogen: None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH, or OSHA.

Acute Toxicity Values:

Reducing Agent: Oral rat LD50 >5000 mg/kg

Inorganic Phosphate: Oral rat LD50 4150 mg/kg; LD50 Dermal Rat >7940 mg/kg

Section 12. Ecological Information

This product is not classified as harmful to the environment.

Toxicity: No toxicity data available for product.

Inorganic Phosphate: 96 hr LC50 rainbow trout >100 mg/L; 48 hr EC50 daphnia magna >100 mg/L

Reducing Agent: 96 hr LC50 Leuciscus idus >100 mg/L; 48 hr EC50 daphnia magna ~50 mg/L; 72 hr IC50 algae >100 mg/L

Persistence and degradability: No data available. Biodegradation does not apply to inorganic substances such as inorganic phosphates. Reducing agent is readily biodegradable.

Bioaccumulative Potential: The calculated BCF for the reducing agents is 3.16.

Mobility in Soil: No data available.

Other Adverse Effects: None known

Section 13. Disposal Considerations

Solution Disposal: Refer to product label for disposal information. Dispose in accordance with national, state/provincial and local regulations.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. If recycling is not available, discard in accordance with hospital policy.

Section 14. Transport Information

	UN Number	UN Proper Shipping Name	Hazard Class(s)	Packing Group	Environmental Hazards
US DOT	None	Not Regulated			None
EU ADR/RID	None	Not Regulated			None
IMDG	None	Not Regulated			None
IATA/ICAO	None	Not Regulated			None

Section 15. Regulatory Information

U.S. Federal Regulations:

EPA SARA 311/312 Hazard Classification: Acute Health

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

Protection Of Stratospheric Ozone: This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

CERCLA SECTION 103: This product has an RQ of 50,000 lbs based on the RQ of the inorganic phosphate of 5000 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

Canadian Regulations

National Pollutant Release Inventory (NPRI): This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements NPRI: None

WHMIS Classification: Class D-2-B

This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the MSDS contains all the information required by the *Controlled Products Regulations*.

International Inventories

US EPA TSCA Inventory: All of the components of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory or exempt.

Canadian Environmental Protection Act: All of the components in this product are listed on the Domestic Substances List (DSL) or exempt.

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NFPA Rating: Fire: 1 Health: 2 Instability: 0

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