

SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

Product ID: A17622-WS-1536, A17622-WS-250, A17622-WS-50, A17622-WS-10, A17622-WS
Product Name: Apostle MiniMax High Efficiency Cell-Free DNA Wash Solution (Kit Component)
Revision Date: Sep 09, 2025 **Date Printed:** Nov 05, 2025
Version: 6.0 **Supersedes Date:** Nov 07, 2025
Manufacturer's Name: Apostle Inc
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Information Phone Number: +1 888-305-3218
Fax:
Product/Recommended Uses: Life science laboratory use. For research use only.

SECTION 2) HAZARDS IDENTIFICATION

Classification

Flammable Liquids - Category 3
Acute toxicity Dermal - Category 4
Acute toxicity Inhalation Vapor - Category 4
Acute toxicity Oral - Category 4
Serious Eye Damage - Category 1
Skin Corrosion - Category 1C
Specific Target Organ Toxicity -Single Exposure (Narcotic Effects) - Category 3
Acute aquatic toxicity - Category 3
Chronic aquatic toxicity - Category 3

Safety data sheet prepared in accordance to the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

Pictograms



2.2 Label Elements

Contains Guanidine Thiocyanate, Isopropyl Alcohol.

Signal Word

Danger

Hazardous Statements - Health

H312 - Harmful in contact with skin
H332 - Harmful if inhaled
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage

H336 - May cause drowsiness or dizziness

Hazardous Statements - Physical

H226 - Flammable liquid and vapor

Hazardous Statements - Environmental

H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements - General

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P103 - Read label before use.

Precautionary Statements - Prevention

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, eye protection/face protection.

P271 - Use only outdoors or in a well-ventilated area.

P264 - Wash thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 - Keep container tightly closed.

P240 - Ground/bond container and receiving equipment.

P241 - Use explosion-proof electrical/ventilating/lighting equipment.

P242 - Use only non-sparking tools.

P243 - Take action to prevent static discharges.

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

Precautionary Statements - Response

P302 + P352 - IF ON SKIN: Wash with plenty of water.

P312 - Call a POISON CENTER/doctor if you feel unwell.

P321 - Specific treatment (see First-Aid on this label).

P362 + P364 - Take off contaminated clothing. And wash it before reuse.

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P301 + P312 - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 - Rinse mouth.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P370 + P378 - In case of fire: Use carbon-di oxide, alcohol foam, water spray or dry chemical to extinguish.

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.

P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P363 - Wash contaminated clothing before reuse.

Precautionary Statements - Storage

P403 + P235 - Store in a well-ventilated place. Keep cool.

P405 - Store locked up.

P403 + P405 - Store in a well-ventilated place. Store locked up.

Precautionary Statements - Disposal

P501 - Dispose of contents/container in accordance with local/national/international regulations.

Hazards Not Otherwise Classified (HNOC)

No Data Available.

SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0000593-84-0	THIOCYANIC ACID, COMPD. WITH GUANIDINE (1:1)	10.00% - 30.00%
0000067-63-0	ISOPROPYL ALCOHOL	10.00% - 30.00%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor. Eliminate all ignition sources if safe to do so. Immediately call a POISON CENTER or doctor. Take precautions to ensure your own safety (e.g. wear appropriate protective equipment).

Eye Contact

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. Continue rinsing for a duration of 30 minutes or until medical aid is available. Take care not to rinse contaminated water into the unaffected eye or onto the face. Immediately call a POISON CENTER or doctor.

Skin Contact

Store contaminated clothing under water and wash before re-use or discard. Take off immediately all contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Rinse skin with lukewarm, gently flowing water/shower for a duration of 30 minutes or until medical aid is available. Immediately call a POISON CENTER or doctor.

Ingestion

Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor. If vomiting occurs naturally, lie on your side, in the recovery position.

Most important symptoms and effects, both acute and delayed

No data available.

Indication of any immediate medical attention and special treatment needed

Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Small Fire : Dry chemical, foam, carbon dioxide, water-spray or alcohol-resistant foam. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Large Fire : Water spray, fog or alcohol-resistant foam.

Unsuitable Extinguishing Media

Do not use straight stream of water.

Specific Hazards Arising from the Chemical

Runoff may pollute waterways Most vapors are heavier than air. Vapors may form explosive mixtures with air Vapors will spread along ground and collect in low or confined areas (sewers, basements, tanks) Vapors may travel to source of ignition and flash back. Many liquids are lighter than water. Containers may explode in fire. May form an ignitable vapor/air mixture in closed tanks or containers. Fire will produce irritating, toxic and corrosive gases.

Precautions for Firefighters

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Cool containers with flooding quantities of water until well after fire is out. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Equipment

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

Stay uphill and/or upstream. Ventilate closed spaces before entering. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Evacuate and isolate hazard area and keep unauthorized personnel away. A vapor-suppressing foam may be used to reduce vapors.

Protective Equipment

Breathing protection is required. Wear chemical protective clothing and positive pressure self-contained breathing apparatus (SCBA). Wear liquid tight chemical protective clothing in combination with positive pressure self-contained breathing apparatus (SCBA).

Personal Precautions

Do not breathe vapor or mist. Do not get on skin, eyes or clothing.

Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Dike far ahead of liquid spill for later disposal.

Methods and Materials for Containment and Cleaning up

Ventilate area after clean-up is complete. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean, non-sparking tools to collect absorbed material.

SECTION 7) HANDLING AND STORAGE

General

Wash hands after use.

Use good personal hygiene practices.

Eating, drinking and smoking in work areas is prohibited.

Remove contaminated clothing and protective equipment before entering eating areas.

All containers must be properly labelled.

Eyewash stations and showers should be available in areas where this material is used and stored

Do not breathe vapor or mist.

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Do not get in eyes, on skin, or on clothing.

Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits.

The use of local ventilation is recommended to control emissions near the source.

Report ventilation failures immediately.

Storage Room Requirements

Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored. Keep containers securely sealed when not in use. Containers that have been opened must be carefully resealed to prevent leakage. Indoor storage should meet OSHA standards and appropriate fire codes. Empty containers retain residue and may be dangerous. Store in cool, dry, well-ventilated areas away from heat, direct sunlight and strong oxidizers. Store in approved containers and protect against physical damage. Take precautionary measures against electrostatic discharge. To avoid fire or explosion, dissipate static electricity during transfer by ground and bonding containers and equipment before transferring material.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids.

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed. Check with respiratory protective equipment suppliers.

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	OSHA Tables (Z1, Z2, Z3)	OSHA Carcinogen	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)
ISOPROPYL ALCOHOL	1		400	980			200	

Chemical Name	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)	NIOSH TWA (ppm)	NIOSH TWA (mg/m3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	ACGIH Carcinogen	NIOSH Carcinogen
ISOPROPYL ALCOHOL	400		400	980	500	1225	A4	

Chemical Name	ACGIH TLV Basis	ACGIH Notations	OSHA	OSHA Skin designation	CAN_ONsmg	CAN_ONtmg	CAN_ONsppm	CAN_ONtppm
ISOPROPYL ALCOHOL	Eye & URT irr; CNS impair	A4; BEI	1					

A4 - Not Classifiable as a Human Carcinogen, BEI - Substances for which there is a Biological Exposure Index or Indices, CNS - Central nervous system, impair - Impairment, irr - Irritation, URT - Upper respiratory tract

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

% Solids by Vol	2.00%
Density VOC Less H2O and Exempts(lb/gal)	0.00 lb/gal
lb HAPS/gal Solid	4.00 lb/gal
lb HAPS/lb Solid	0.00 lb/lb
lb VHAPS/lb Solid	0.00 lb/lb
lb VOC/gal Solid	33.00 lb/gal
lb VOC/lb Solid	0.52 lb/lb
VOC Actual(lb/gal)	1.32 lb/gal
VOC Regulatory(lb/gal)	1.32 lb/gal
lb VHAPS/gal Solid	21.00 lb/gal
VOC Actual(g/l)	158.63 g/l
Density VOC Less H2O and Exempts(g/l)	0.00 g/l
VOC Regulatory(g/l)	158.63 g/l
Density	1.03 g/cm3
% VOC	15.40%
Density VOC	0.16 g/cm3
% HAPS	0.00%
Density HAPS	0.00 g/cm3
% VHAPS	0.00%
Density VHAPS	0.00 g/cm3
% Solids By Weight	29.62%

Kinematic Viscosity	N/A
Boiling Point	N/A
Water Content	N/A
Refractive Index	N/A

Kinematic Viscosity Temperature	N/A
Water Solubility	N/A
Appearance	Clear to light yellow liquid
Odor Threshold	N/A °C/μL
Odor Description	Characteristic
pH	4 - 6
Flammability	Flash point at or above 73°F/23°C and less than 100°F/38°C
Flash Point Symbol	N/A
Flash Point	N/A
Viscosity	N/A
Lower Explosion Level	N/A
Upper Explosion Level	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Freezing Point	N/A
Melting Point	N/A
Low Boiling Point	N/A
High Boiling Point	N/A
Auto Ignition Temp	N/A
Decomposition Pt	N/A
Evaporation Rate	N/A
Coefficient Water/Oil	N/A

SECTION 10) STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical Stability

Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions/Polymerization

Will not occur.

Conditions To Avoid

Avoid all possible sources of ignition, heat, sparks, flame, build up of static electricity and contact with incompatible materials.

Incompatible Materials

Strong bases, acids, and oxidizing agents.

Hazardous Decomposition Products

Oxides of carbon.

SECTION 11) TOXICOLOGICAL INFORMATION

Acute Toxicity

Harmful in contact with skin

Harmful if inhaled

Harmful if swallowed

The Acute Toxicity Estimate (ATE) for an oral exposure to this mixture is 1576.69 mg/kg body weight

The Acute Toxicity Estimate (ATE) for a dermal exposure to this mixture is 3863.72 mg/kg body weight

The Acute Toxicity Estimate (ATE) for an inhalation (vapour) exposure to this mixture is >20 mg/l

0000067-63-0 ISOPROPYL ALCOHOL

If ingested causes drunkenness and vomiting. Inhalation can irritate the nose and throat.

LC50 (Rat, Inhalation) = 16,000 ppm/8H Reference : Registry of Toxic Effects of Chemical Substances If ingested causes drunkenness and vomiting. Inhalation can irritate the nose and throat.

Aspiration Hazard

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

Carcinogenicity

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

Germ Cell Mutagenicity

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

Respiratory/Skin Sensitization

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

Reproductive Toxicity

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

Serious Eye Damage/Irritation

Causes serious eye damage

0000067-63-0 ISOPROPYL ALCOHOL

Liquid irritates eyes and may cause injury.

Skin Corrosion/Irritation

Causes severe skin burns and eye damage

0000067-63-0 ISOPROPYL ALCOHOL

Contact can irritate and burn the skin. Prolonged or repeated contact can cause a skin rash, itching, dryness and redness.

Specific Target Organ Toxicity - Repeated Exposure

0000067-63-0 ISOPROPYL ALCOHOL

Repeated high exposure can cause headache, dizziness, confusion, loss of coordination, unconsciousness and even death.

Specific Target Organ Toxicity - Single Exposure

May cause drowsiness or dizziness

0000067-63-0 ISOPROPYL ALCOHOL

Vapors cause mild irritation of upper respiratory tract; high concentrations may be anesthetic.

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

0000067-63-0 ISOPROPYL ALCOHOL

The substance can be absorbed into the body by inhalation of its vapour.

Chronic Exposure

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

Potential Health Effects - Miscellaneous

0000067-63-0 ISOPROPYL ALCOHOL

The following medical conditions may be aggravated by exposure: dermatitis, respiratory disease. Developmental toxicity was seen in rat's offspring at doses that were maternally toxic. Contact will cause moderate to severe redness and swelling, itching, tingling sensation, painful burning. May cause injury to the cornea of the eyes. Prolonged or repeated exposure may cause damage to any of the following organs/systems: liver. Ingestion studies on laboratory animals showed that very high oral doses caused increased liver and kidney weights.

0000593-84-0 Thiocyanic acid, compd. with guanidine (1:1)

LD50 (oral, female rat): 593 mg/kg

0000067-63-0 ISOPROPYL ALCOHOL

LC50 (rat): 17000 ppm (4-hour exposure); cited as 12000 ppm (8-hour exposure) (18)

LD50 (oral, male rat): 4710 mg/kg (cited as 6.0 mL/kg) (19)

LD50 (oral, mouse): 3600 mg/kg (20, unconfirmed)

LD50 (dermal, rabbit): 12870 mg/kg (cited as 16.4 mL/kg) (14)

SECTION 12) ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life

Harmful to aquatic life with long lasting effects

Persistence and Degradability

0000067-63-0 ISOPROPYL ALCOHOL

Readily biodegradable

Bioaccumulative Potential

0000067-63-0 ISOPROPYL ALCOHOL

Substance is not expected to bioaccumulate.

Mobility in Soil

No data available.

Other Adverse Effects

No data available.

Results of the PBT and vPvB assessment

0000067-63-0 ISOPROPYL ALCOHOL

Substance is readily biodegradable and therefore not considered to be persistent. It is not expected to bioaccumulate as it has a Log Kow < 4.5 and aquatic acute toxicity greatly exceeds the screening criteria of EC50 < 0.1 mg/l.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal

It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, state and local laws. Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes.

SECTION 14) TRANSPORT INFORMATION

	U.S. DOT Information	IMDG Information	IATA Information
UN Number:	UN2924	UN2924	UN2924
UN proper shipping name:	Flammable liquids, corrosive, n.o.s. (Thiocyanic acid, compd. with guanidine (1:1))	Flammable liquids, corrosive, n.o.s. (Thiocyanic acid, compd. with guanidine (1:1))	Flammable liquids, corrosive, n.o.s. (Thiocyanic acid, compd. with guanidine (1:1))
Transport Hazard class(es)	3 (8)	3 (8)	3 (8)
Packing group	III	III	III
Environmental hazards	No Data Available	No Data Available	No Data Available
Special precautions for user	No Data Available	No Data Available	No Data Available
Transport in bulk according to Annex II of MARPOL and the IBC code	No Data Available	No Data Available	No Data Available

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0000593-84-0	THIOCYANIC ACID, COMPD. WITH GUANIDINE (1:1)	10% - 30%	DSL - Domestic Substance List, SARA312, TSCA - Toxic Substances Control Act (TSCA)
0000067-63-0	ISOPROPYL ALCOHOL	10% - 30%	SARA313, Canada_NPRI, DSL - Domestic Substance List, SARA312, IARCcarcinogen, TSCA - Toxic Substances Control Act (TSCA), Canada_ON_419, NJ_RightToKnow_HazSubList - New Jersey Right to Know Hazardous Substance List (RTKHSL), MA_RightToKnow - Massachusetts Right to Know

SECTION 16) OTHER INFORMATION

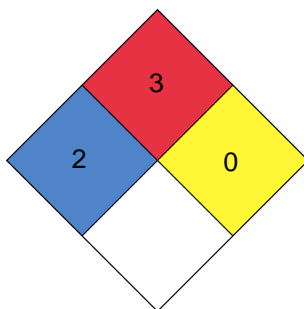
Glossary

ACGIH - American Conference of Governmental Industrial Hygienists; CAS - Chemical Abstracts Service ; Chemtrec - Chemical Transportation Emergency Center; DSL - Domestic Substances List; ESL- Effects screening levels; GHS - "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations; HMIS - Hazardous Material Information Service; IATA - Dangerous Goods Regulations (DGR) for the air transport (IATA); IMDG - International Maritime Dangerous Goods Code; LC - Lethal Concentration; LD - Lethal Dose; NFPA - National Fire Protection Association; OEL - Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL - Permissible Exposure Limit; SARA 313 - Superfund Amendments and Reauthorization Act, Section 313; SCBA - Self Contained Breathing Apparatus; ppm - parts per million; STEL - Short-term exposure limit; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act Public Law 94-469; TWA - Time-weighted average; US DOT- US Department of Transportation.

HMIS

Health	/ 2
FLAMMABILITY	3
Physical Hazard	0
Personal Protection	

NFPA



(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks

Version 6.0:

Revision Date: Sep 09, 2025

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