SAFETY DATA SHEET

Section 1: Identification

Product identifier: Vanguard
Other means of identification: Residual Bacteriostat
SDS number: 868
EPA number: 6836-63-7116
Recommended use: Laundry Sanitizer
Recommended restrictions: Not for personal care
Manufacturer/Importer/Supplier/Distributor information:

Company name: UNX Industries, Inc.
Address: 707 Arlington Blvd
Greenville, NC 27858
Telephone: Office hours (Mon-Fri)
8:00a.m. – 4:00p.m. (Eastern Time)
OFFICE NUMBER: 252-756-8616
E-mail: unx@unxinc.com

Emergency phone number: CHEMTEL (800) 255-3924 (24 HOURS)

Section 2: Hazard(s) identification

Classification of the substance or mixture:

Physical hazards:

Flammable liquids	Category 3

Health hazards:

Acute toxicity; dermal/inhalation/oral:	Category 3
Skin corrosion/irritation:	Category 1C
Serious eye damage/eye irritation:	Category 1
Specific target organ toxicity, Single exposure:	Category 2

Environmental hazards:

Hazardous to the aquatic environment, Acute:	Category 1
Hazardous to the aquatic environment, Long-term hazard:	Category 1

Label elements:

Signal word: Danger

Section 2: Hazard(s) identification (continued)

Hazard statements:

H226	Flammable liquid and vapor.
H301	Toxic if swallowed.
H311	Toxic if in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H371	May cause damage to organs.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

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.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P235	Keep cool.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/…/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe mist or vapor.
P264	Wash hands, arms, face and exposed skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this products.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.

Response:

P301+P330+P331	IF SWALLOWED: Immediately a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep 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.
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

P403+P223	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Disposal:

P501	Dispose of contents/container in accordance with local/ regional/ national/ international Regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Section 3: Composition/information on ingredients

Substance/Mixtures

Chemical name	CAS Number	Concentration (%)
Quaternary ammonium compounds, di-C8-10-alkyldimethyl, chlorides	68424-95-3	45-60
Water	7732-18-5	35-50
Propan-2-ol	67-63-0	5-15

Section 4: First-aid measures

Description of first aid measures:

Non-emergency personnel

General advice: Safely remove victims from the danger zone. Provide emergency services with this safety data sheet.

Eye contact: Rinse eye with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call poison control or get medical attention immediately.

Skin contact: Rinse immediately with plenty of water. Call poison control or get medical attention immediately. Chemical burns must be treated by a medical professional.

Ingestion: Rinse mouth with plenty of water. Do not give anything by mouth to an unconscious person. Do not induce vomiting. Get medical attention immediately.

Inhalation: Bring victim out to fresh air. If the person is conscious, call poison control or doctor for treatment advice. If the person is not breathing, get medical attention immediately.

Emergency personnel

Personal protection: Refer to Section 8 for specific personal protective equipment

Notes to physician: The concentration and length of exposure impacts the severity of the symptoms.

Most important symptoms/effects, acute and delayed:

Refer to Section 2 for hazards and Section 11 for information on health effects and symptoms. Treat symptomatically.

Indication of immediate medical attention and special treatment needed, if necessary: Provide general supportive measures. Eye contact, inhalation, and ingestion cases should be treated immediately. Have procedures and facilities in place to treat these cases of exposure.

Section 5: Fire-fighting measures

Suitable extinguishing media: Use measures that are suitable for the current situation. If fire is present, use water or an extinguisher if available. Do not use highly pressurized water to avoid spread.

Unsuitable extinguishing media: Do not use water jet as this can spread the fire. Do not use carbon dioxide in enclosed spaces with insufficient ventilation.

Specific hazards arising from the chemical: Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. Gases hazardous to health may be formed. Product containers can melt from the heat of the fire and the combustible packaging material will fuel the fire. Do not breathe in any fumes from the fire. Withdraw immediately in cases of rising sound from venting safety device or discoloration of tanks. For massive fire in cargo, use unmanned hose holder or monitor nozzles. If not, withdraw and let fire burn out.

Special protective equipment for fire-fighters: Wear full protective airtight garment and NIOSH approved self-contained breathing apparatus with independent air-supply. Fight the fire in early stages if safe to do so. Provide sufficient ventilation and be aware of hydrogen generation upon reactions with some metals. Do not allow contaminated extinguishing water to enter the soil, ground-water supply or surface waters.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures: Ventilate and restrict access to the area of leak or spill. Have emergency procedures in place for treating incidents, evacuation and informing the emergency services. Refer to Section 8 for personal protective equipment.

Environmental precautions: Clean up spills/leaks immediately and prevent it from spreading. Large or uncontrolled spills to water systems must be reported to appropriate regulatory body.

Methods and materials for containment and cleaning up: Absorb spills with non-combustible absorbent. Dam and absorb with sand, earth or other inert material for large spills/leaks. Collect spillage in containers with labeled contents and dispose according to local regulations. Flush the contaminated area with lots of water.

Section 7: Handling and storage

Precautions for safe handling: Refer to Section 8 for personal protective equipment. Do not eat, drink, or smoke when handling the product. Avoid skin and eye contact. Follow general hygiene routines after working with the product. When handling large amounts of the product, be sure to have a safety shower nearby.

Conditions for safe storage: Store in a suitable, closed and labeled container upright at temperature between 40°F and 100°F in a well-ventilated area. Opened containers must be properly resealed to avoid spillage. Store away from heat, direct sunlight and moisture. It is preferred to keep the container on sump pallets. Store in high-density polyethylene containers. See Section 10 for incompatible materials.

Section 8: Exposure control/personal protection

Control Parameters

Occupational exposure limits

US.OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Chemical Name	CAS-No.	Type	Value	
Propan-2-ol	67-63-0	PEL	400 ppm	980 mg/m^3

US. ACGIH Threshold Limit Values

Chemical Name	CAS-No.	Type	Value
Propan-2-ol	67-63-0	STEL	400 ppm
		TWA	200 ppm

US. NIOSH Pocket Guide to Chemical Hazards Components

Chemical Name	CAS-No.	Type	Value	
Propan-2-ol	67-63-0	STEL	500 ppm	1225 mg/m^3
		REL	400 ppm	980 mg/m^3

Appropriate engineering controls/ventilation system:

A general exhaust system is recommended to keep employee exposures below the limits. An additional local exhaust system is preferred in order to control emissions at its source.

Personal protective equipment (PPE)

Respiratory protection: A NIOSH approved full-face respirator with high efficiency dust/mist filter is recommended. For emergencies or when dealing with unknown exposure measures, use a full-face piece positive-pressure, air-supplied respirator fitted with a suitable cartridge for the chemical. Consult respirator supplier regarding the compatibility of the equipment. CAUTION: Air purifying respirators do not protect the user in oxygen deficient atmospheres, use an air supply system.

Hand protection: Impervious gloves, with suitable protection for workplace, are recommended any time the product is being handled. Consult glove supplier for details on suitability, breakthrough time and permeability. Frequent change of the gloves is advisable. Be aware that latex gloves can trigger an allergic reaction to sensitive individuals.

Eye protection: Use chemical safety goggles and/or full-face shield when handling the product.

Skin/Body protection: Wear impervious protective clothing, boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Take additional precaution if handling amounts past the exposure limits.

Thermal hazard: Wear thermal protective clothing when necessary.

General hygiene: Change out of clothes, thoroughly wash your hands and clothes, and shower/bathe as soon as possible. Do not eat, drink, smoke or use the bathroom while handling the product.

Other protective measures: Have an eye wash and safety shower station close by. Routinely wash all equipment to remove contaminants.

Section 9: Physical and chemical properties

Appearance: Liquid
Color: Clear liquid
Odor: Mild Odor
Odor Threshold: No data available
pH: 6.0 – 9.0 ± 0.5
Melting point/range: No data available
Boiling point/range: No data available
Flash point: 45 °C
Evaporation rate: No data available
Flammability (solid, gas): No data available
Upper/lower flammability of explosive limits: No data available
Vapor pressure (mm Hg): No data available
Vapor density (Air=1): No data available
Relative density: No data available
Solubility(ies): Excellent in warm water
Partition coefficient (n-octanol/water): No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity, dynamic: 25

Other Information: This product contains no phosphates.

Section 10: Stability and reactivity

Reactivity: No hazardous reactions are known under normal storage conditions and if handled according to standard industrial practices.

Chemical stability: Stable if under normal storage conditions and handled according to standard industrial practices.

Possibility of hazardous reactions: Hazardous polymerization will not occur.

Conditions to avoid: No hazardous conditions are known.

Incompatible materials: Strong oxidizing agents, combustible materials and flammable materials.

Hazardous decomposition products: None are known based on provided information.

Section 11: Toxicological information

Acute toxicity: Toxicological testing has not been conducted with this material. The toxicology information listed below is based on the components of this material.

Category 3- Oral/Dermal: Toxic; if swallowed/in contact with skin.
Category 3- Inhalation: Toxic if inhaled.

Propan-2-ol – ATE (Acute Toxicity Estimate)	
Oral LD_{50}	Inhalation LC_{50}
5,045 mg/kg (Rat)	73 g/m^3 4 h (Rat)

N,N-Didecyl-N,N-dimethylammonium chloride* – ATE (Acute Toxicity Estimate)	
Oral LD_{50}	Dermal LD_{50}
238 mg/kg (Rat)	3,342 mg/kg (Rabbit)

***Information given is based on data obtained from similar substances.**

Skin corrosion/ irritation: Category 1C: Causes severe skin burns and eye damage.

Serious eye damage/irritation: Category 1: Causes serious eye damage.

Respiratory sensitization: No information available.

Skin sensitization: This mixture not expected to cause skin sensitization.

Germ cell mutagenicity: Classification not possible**.**

Carcinogenicity: No product components are considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Reproductive toxicity: This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure: May cause damage to organs.

Aspiration hazard: Not applicable.

Section 12: Ecological information

Toxicity: Do not allow to escape into waterways, wastewater or soil. Ecotoxicological studies of the product are not available. Please find below the data available to us from raw materials:

Aquatic ecotoxicity:
Acute: Category 1: Very toxic to aquatic life.
Chronic: Category 1: Very toxic to aquatic life with long lasting effects.

Section 12: Ecological information (continued)

Quaternary ammonium compounds, di-C8-10-alkyldimethyl, chlorides	
LC_{50}/96 h	EC_{50}/48 h
2 mg/L (Oncorhynchus mykiss) (US-EPA)	< 1 mg/L (Daphnia magna) (EPA-FIFRA)

Propan-2-ol
LC_{50} Bluegill > 1,400 mg/L 96 hrs

Persistence and degradability: No data is available on the degradability of this product.

Bioaccumulative potential: No data available for this product.

Mobility in soil: Not available.

Other adverse effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Section 13: Disposal considerations

General information: Do not allow the product to contaminate any body of water. Refer to Section 8 for personal protection equipment.

Disposal methods: Avoid unauthorized disposal. Do not dump into any body of water. Comply with federal, state/provincial and local laws/regulations. Do not reuse empty containers.

Section 14: Transport information

UN Number: UN 1903
UN Proper shipping name: DISINFECTANTS, LIQUID, CORROSIVE, N.O.S, (DIALKYLDIMETHYLAMMONIUM CHLORIDE)
Transport hazard class(es):
DOT Hazard Class: 8
DOT Subsidiary hazard class: Not Available
Label: CORROSIVE
Packing group, if available: II
Environmental Hazards: No
Special precautions for user:

Transport in bulk according to Annex II of MARPOL 73/78[3] and the IBC Code [3]: Not applicable

Section 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture:
Unless otherwise noted, no components are SARA TITLE III, SECTION 313, 40 CFR listed materials.
The ingredients of this product are listed on the TSCA inventory.

US federal regulations: This product is U.S. EPA registered pesticide. This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

CERCLA Hazardous Substance List (40 CFR 302.4) Not listed.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard – Yes
Delayed Hazard – No
Fire Hazard – Yes
Pressure Hazard – No
Reactivity Hazard – No

SARA 302 Extremely hazardous substance: Dimethylnitrosoamine (CAS: 62-75-9)
SARA 311/312 Hazardous chemical Yes
SARA 313 (TRI reporting) Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) Not regulated.
Safe Drinking Water Act (SDWA) Not regulated.

The following components appear on one or more of the following state hazardous substance lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA
Propan-2-ol	67-63-0	No	No	Yes	No	Yes	Yes

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Section 16: Other information including date of preparation or last revision

Chemical State: Liquid
Chemical Type: Mixture

Issue Date: 05-01-2021
Revision Date: -
Version #: 01

3	Health
2	Flammability
0	Physical Hazard
C	Personal Protection

To the best of our knowledge, the information contained herein is accurate. **However, neither UNX Industries, Inc. nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.** Final determination of suitability of any material is the sole responsibility of the user. All materials may represent unknown hazards and should be used within caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.