

# VOS-5

SDS Number: 0005

Revision Date: 4/30/2020

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## 1 PRODUCT AND COMPANY IDENTIFICATION

### Manufacturer

Alliance Group Inc. 262-251-4977  
N114 W18621 Clinton Drive  
Germantown, WI 53022

Phone: 800-255-3924

Emergency: CHEMTEL

Product Identifier: VOS-5  
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Revision Date: 4/30/2020  
Product Use: Water Treatment Compound

## 2 HAZARDS IDENTIFICATION

### Classification of the Substance or Mixture

#### GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

Health, Acute toxicity, 4 Oral  
Health, Skin corrosion/irritation, 2  
Health, Skin sensitization, 1  
Health, Serious Eye Damage/Eye Irritation, 2 A  
Health, Acute toxicity, 4 Inhalation  
Health, Germ cell mutagenicity, 2  
Health, Carcinogenicity, 2  
Environmental, Hazards to the aquatic environment - Chronic, 1

### GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **WARNING**

GHS Hazard Pictograms:



GHS Hazard Statements:

H302 - Harmful if swallowed  
H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H319 - Causes serious eye irritation  
H332 - Harmful if inhaled  
H341 - Suspected of causing genetic defects  
H351 - Suspected of causing cancer  
H410 - Very toxic to aquatic life with long lasting effects

GHS Precautionary Statements:

P202 - Do not handle until all safety precautions have been read and understood.  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264 - Wash skin thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P271 - Use in a well-ventilated area.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call Poison Center or doctor/physician if not feel well  
P302+352 - IF ON SKIN: Wash with soap and water.



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P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Center or doctor/physician if you feel unwell

P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P308+313 - IF exposed or concerned: Get medical advice/attention.

P333+313 - If skin irritation or a rash occurs: Get medical advice/attention.

P337 - If eye irritation persists: get medical attention.

P362 - Take off contaminated clothing and wash before reuse.

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local, regional and international regulations.

### Hazards not Otherwise Classified (HNOC) or not Covered by GHS

**Route of Entry:** Eyes; Inhalation; Ingestion; Skin.

**Target Organs:** Eyes; Skin;

**Inhalation:** Overexposure can cause irritation and inflammation of the respiratory tract.

**Skin Contact:** May cause irritation.

**Eye Contact:** May cause eye irritation.

**Ingestion:** May be harmful if swallowed.

HMIS III: Health = 2(Chronic), Fire = 1, Physical Hazard = 0

HMIS		
HEALTH	<input checked="" type="checkbox"/>	2
FLAMMABILITY		1
PHYSICAL HAZARD		0
PERSONAL PROTECTION	<input type="checkbox"/>	

## 3 COMPOSITION/INFORMATION OF INGREDIENTS

\*Substance/Mixture: Mixture

CAS#	Chemical %	Ingredients: Chemical Name:
3710-84-7	<8%	Diethylhydroxylamine
123-31-9	2-5%	Hydroquinone

## 4 FIRST AID MEASURES

**Inhalation:** If symptoms develop, move victim to fresh air. Give oxygen or artificial respiration if needed. Consult a physician.

**Skin Contact:** Promptly flush skin with water for 15 minutes. Remove contaminated clothing immediately. Do not reuse clothing and shoes until cleaned. Consult physician if skin irritation or rash develops.

**Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation. Consult a physician if irritation persists.

**Ingestion:** Do NOT induce vomiting. Rinse mouth with water. If unconscious, take to a hospital or physician. Never induce vomiting or give anything by mouth to an unconscious victim. For spontaneous vomiting, keep head below hips.

Protection of First Aid Personnel:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing



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aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. If it is suspected that dust, vapor, or gas are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus.

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## FIRE FIGHTING MEASURES

<b>Flammability:</b>	Not Flammable or Combustible.
<b>Flash Point:</b>	None
<b>Flash Point Method:</b>	None
<b>Burning Rate:</b>	No data available
<b>Autoignition Temp:</b>	No data available.
<b>LEL:</b>	No data available
<b>UEL:</b>	No data available

## Fire Fighting Methods

Evacuate area of unprotected personal. Wear protective clothing including NIOSH Approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire exposed containers and disperse vapors.

**Extinguishing Media**

**Suitable:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray, CO<sub>2</sub>, or dry chemical.

**Unsuitable fire extinguisher:** No data available.

**Unusual Fire or Explosion Hazards:** Product may emit toxic gases under fire conditions. Diethylhydroxylamine (DEHA) vapor is heavier than air and may travel a considerable distance to a source of ignition and flash back.

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## ACCIDENTAL RELEASE MEASURES

**Personal Precautions**

Evacuate area. Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

**Environmental Precautions**

Prevent further leakage or spillage if safe to do so. Do not let products enter drains. Discharge into the environment must be avoided.

**Spill**

Keep upwind of leak or spill. Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal. Flush remaining area with water to remove trace residue and dispose of properly. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs. Use non-sparking tools and equipment.

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## HANDLING AND STORAGE

<b>Handling Precautions:</b>	Avoid contact with eyes, skin, or clothing. Avoid breathing vapors or mist. Wash thoroughly after handling. Do not eat, drink, or smoke in work area.
<b>Storage Requirements:</b>	Store in cool/dry area. Keep away from sunlight, heat, sparks, and flames. Keep away from incompatible materials. Keep container tightly closed. Do not store in unlabeled or mislabeled containers. Do not freeze.



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## EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Engineering Controls:</b>	Local exhaust ventilation or other engineering controls are normally required when using this product to avoid overexposure. Maintain adequate ventilation.
<b>Personal Protective Equipment:</b>	<p>Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.</p> <p>Respiratory Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.</p> <p>Eyes and Face Wear chemical safety goggles while handling this product. Wear additional eye protection such as a face shield when the possibility exists for eye contact with splashing or spraying liquid or airborne material.</p> <p>Skin Prevent contact with this product. Wear gloves and protective clothing depending on conditions of use. Protective gloves: gauntlet-type, neoprene, nitrile.</p>

Component	OSHA PEL	ACGIH TWA/ TLV
Hydroquinone	2 mg/m <sup>3</sup> - TWA	1 mg/m <sup>3</sup> -TWA
Diethylhydroxylamine	No data available	2 ppm - TWA

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## PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Tan to brown	<b>Odor:</b>	Mild Amine.
<b>Physical State:</b>	Liquid	<b>Molecular Formula:</b>	No data available
<b>Odor Threshold:</b>	No data available.	<b>Solubility:</b>	Complete.
<b>Particle Size:</b>	No data available	<b>Softening Point:</b>	No data available
<b>Spec Grav./Density:</b>	0.995-1.05	<b>Percent Volatile:</b>	No data available.
<b>Viscosity:</b>	No data available.	<b>Heat Value:</b>	No data available
<b>Saturated Vapor Concentration:</b>	No data available	<b>Freezing/Melting Pt.:</b>	25°F
<b>Boiling Point:</b>	No data available	<b>Flash Point:</b>	No data available
<b>Flammability:</b>	No data available.	<b>Octanol:</b>	No data available
<b>Partition Coefficient:</b>	No data available	<b>Vapor Density:</b>	>1
<b>Vapor Pressure:</b>	No data available.	<b>VOC:</b>	No data available
<b>pH:</b>	8.0-9.0	<b>Bulk Density:</b>	No data available
<b>Evap. Rate:</b>	No data available.	<b>Auto-Ignition Temp:</b>	No data available.
<b>Molecular weight:</b>	No data available	<b>UFL/LFL:</b>	No data available
<b>Decomp Temp:</b>	No data available.		

Lower Explosion Limits: 1.8- 6.7  
Upper Explosion Limits: 10.8-11.7

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## STABILITY AND REACTIVITY

<b>Reactivity:</b>	No data available
<b>Chemical Stability:</b>	Product is stable under normal conditions.
<b>Conditions to Avoid:</b>	Minimize exposure to air and light. Hydroquinone will oxidize to quinone. Avoid overheating
<b>Materials to Avoid:</b>	Strong oxidizing agents and strong acids, This product is incompatible with carbon steel, copper, and



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**Hazardous Decomposition:** PVC (polyvinylchloride).  
Carbon oxides, nitrogen oxides, ammonia. Nitrogen oxide can react with water to form corrosive nitric acid.

**Hazardous Polymerization:** Will not occur.

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## TOXICOLOGICAL INFORMATION

### Toxicity Data:

Eye Effects: Causes serious eye irritation. May cause: blurred vision, redness, pain and tearing.

- » Diethylhydroxylamine = Eyes - No data available
- » Hydroquinone = Eyes - No data available

Skin Effects: Causes irritation. Prolonged and repeated exposure to dilute solutions may cause irritation, redness, pain and drying and cracking of the skin. Hydroquinone is an active allergen so repeated and prolonged exposure may cause skin sensitization.

- » Diethylhydroxylamine = Dermal LD50 - Rabbit - 1300 mg/kg  
Skin Corrosion/irritation - Rabbit - mild skin irritation - 24H
- » Hydroquinone = Dermal LD50 - Rabbit > 2000 mg/kg  
Skin Corrosion/irritation - no data available

Inhalation Effects: May cause irritation of the nose and respiratory tract. Effects may be delayed. Headaches, dizziness, nausea, and cyanosis may result from over-exposure to vapor.

- » Diethylhydroxylamine = Inhalation LC50 - Rat - 3140 ppm
- » Hydroquinone = Inhalation LC50 - No data available

Ingestion Effects: May cause discomfort, nausea, vomiting, diarrhea if swallowed. Based on the Acute LD50 values of the components, this product is considered slightly toxic by ingestion.

- » Diethylhydroxylamine = Oral LD50 - Rat - 2190 mg/kg
- » Hydroquinone = Oral LD50 - Rat 367 mg/kg

### Carcinogenicity

(Hydroquinone) IARC3: Group 3 - Not classifiable as to its carcinogenicity to humans

### Mutagenicity

(Diethylhydroxylamine) Human- leukocyte - unscheduled DNA synthesis  
(Hydroquinone) Lab experiments have shown mutagenic effects

**Teratogenicity:** No data available

### Fertility Effects

(Diethylhydroxylamine) Reproductive toxicity - Rat - parenteral

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## ECOLOGICAL INFORMATION

### ECOTOXICITY

Toxicity to fish

- » LC50 - Oncorhynchus mykiss (rainbow trout) - 0.04 - 0.1 mg/l - 96.0 H (Hydroquinone)

Toxicity to daphnia and other aquatic invertebrates

- » EC50 - Daphnia magna (Water flea) - 0.13 mg/l - 48 (Hydroquinone)
- » EC50 - Daphnia magna (Water flea) - 110.5 mg/l - 48H (Diethylhydroxylamine)

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life.



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**13 DISPOSAL CONSIDERATIONS**

Dispose of in accordance with local, state, and federal regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied.

RCRA: This material is not listed as a hazardous waste if and when it is discarded.

**14 TRANSPORT INFORMATION**

Not DOT regulated as a hazardous product.

**15 REGULATORY INFORMATION**

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

**FEDERAL REGULATIONS**

TSCA Inventory Status: All components of this product are listed "Active" on the Toxic Substances Control Act (TSCA) 8 (b) Inventory.

CERCLA / SARA Emergency Reporting A spill or release of this material may trigger the emergency release reporting requirements under CERCLA (40 CFR Part 300) and/or SARA Title III (40 CFR Part 355). State or local reporting requirements may differ from federal requirements.

» **Hydroquinone reporting amount = 100 lbs.**

Clean Water Act (CWA): The following chemicals are listed under Section 311 as hazardous substances requiring the submission of a National Pollutant Discharge Elimination System (NPDES) permit application to EPA. » **No components listed**

RCRA: The requirements of the federal hazardous waste regulations do not apply unless the waste fails to pass any of EPA's four tests for determining hazardous wastes.

» **No components listed**

**STATE REGULATIONS**

**California- Proposition 65:** This product does not contain any chemicals known to the State of California to cause cancer and/or reproductive harm

**Massachusetts - RTK Substances:** The following components are listed: Hydroquinone (CAS# 123-31-9)

**New Jersey - RTK Substances:** The following components are listed: Diethylhydroxylamine (CAS# 3710-84-7), Hydroquinone (CAS# 123-31-9)

**Pennsylvania - RTK Substances:** The following components are listed: Diethylhydroxylamine (CAS# 3710-84-7), Hydroquinone (CAS# 123-31-9)

**16 OTHER INFORMATION**



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**Prepared By: P May**

**Reason For Revision: Updated GHS & Regulatory Information**

**Disclaimer:**

This information is given in good faith and based on our current knowledge of the product. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.

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