



## Voltreet

### 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** Voltreet  
**SDS Number:** 0108  
**Revision Date:** 5/31/2016  
**Chemical Family:** Alkanolamines  
**Product Use:** Water Treatment Compound  
**Supplier Details:** Alliance Group, Inc. 800-648-7339  
N114 W18621 Clinton Drive  
Germantown, WI 53022

**Contact:** CHEMTEL  
**Phone:** 1-800-255-3924

### 2 HAZARDS IDENTIFICATION

#### Classification of the Substance or Mixture

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

Health, Serious Eye Damage/Eye Irritation, 1  
Health, Skin corrosion/irritation, 1 B  
Health, Acute toxicity, 3 Dermal  
Environmental, Hazards to the aquatic environment - Acute, 3  
Health, Skin sensitization, 1  
Health, Acute toxicity, 4 Inhalation  
Health, Acute toxicity, 4 Oral  
Environmental, Hazards to the aquatic environment - Chronic, 3

#### GHS Label Elements, Including Precautionary Statements

**GHS Signal Word:** **DANGER**

##### GHS Hazard Pictograms:



##### GHS Hazard Statements:

H318 - Causes serious eye damage  
H314 - Causes severe skin burns and eye damage  
H311 - Toxic in contact with skin  
H402 - Harmful to aquatic life  
H317 - May cause an allergic skin reaction  
H332 - Harmful if inhaled  
H302 - Harmful if swallowed  
H412 - Harmful to aquatic life with long lasting effects

##### GHS Precautionary Statements:

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.  
P264 - Wash thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P271 - Use only outdoors or 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+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+361+353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
P310 - Immediately call a POISON CENTER or doctor/physician.  
P333+313 - If skin irritation or a rash occurs: Get medical advice/attention.  
P361 - Remove/Take off immediately all contaminated clothing.  
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:** Respiratory system; Eyes; Skin; Teeth.  
**Inhalation:** Can cause irritation and inflammation of the respiratory tract. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.  
**Skin Contact:** CORROSIVE. May cause irritation, tearing and redness. Toxic if absorbed through skin.  
**Eye Contact:** May cause irritation. May cause permanent eye damage.

## 3 COMPOSITION/INFORMATION OF INGREDIENTS

### Ingredients:

\*Substance/Mixture: Mixture

Cas#	%	Chemical Name
110-91-8	<5%	Morpholine
100-37-8	<10%	Diethylethanolamine

## 4 FIRST AID MEASURES

**Inhalation:** If symptoms develop, move victim to fresh air. Give oxygen or artificial respiration if needed. GET IMMEDIATE MEDICAL ATTENTION.  
**Skin Contact:** Promptly flush skin with water for 15 minutes. Remove contaminated clothing immediately. Get immediate medical attention. Do not reuse clothing and shoes until cleaned. Discard leather articles such as shoes and belt. Do not apply oils and ointments unless ordered by a physician.  
**Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation. Get immediate medical attention.  
**Ingestion:** Do NOT induce vomiting. Seek immediate medical attention. 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.

## 5 FIRE FIGHTING MEASURES

**Flammability:** Not Flammable or Combustible.  
**Flash Point:** 212 F  
**Flash Point Method:** No data available  
**Burning Rate:** No data available  
**Autoignition Temp:** No data available.  
**LEL:** No data available  
**UEL:** 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.

### Unusual Fire or Explosion Hazards:

Vapors are heavier than air and can settle in low or confined areas. Vapors concentrated in a confined or poorly ventilated area can be ignited upon contact with a high energy spark, flame, or high intensity source of heat. This material may produce a floating fire hazard in extreme fire conditions.

### Extinguishing Media

**Suitable:** Water spray. Foam. Carbon dioxide. Dry chemical. Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

**Unsuitable fire extinguisher:** No data available

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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

CORROSIVE MATERIAL. 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

### Handling Precautions:

Avoid contact with eyes, skin, or clothing. Avoid breathing vapors or mist. Wash thoroughly after handling. Do not puncture or drop containers.

Do not expose containers to open flame, excessive heat, or direct sunlight. Take precautionary measures against static discharges. Use non-sparking tools and equipment. Do not add nitrites or other nitrosating agents. A nitrosamine, which may cause cancer, may be formed.

### Storage Requirements:

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. Explosive/flammable concentration of hydrogen gas may accumulate inside metals containers.

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## EXPOSURE CONTROLS/PERSONAL PROTECTION

### Engineering Controls:

Provide local exhaust ventilation. Maintain adequate ventilation.

### Personal Protective Equipment:

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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.

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.

Skin

Prevent contact with this product. Wear gloves and protective clothing depending on conditions of use.

Protective gloves: gauntlet-type, neoprene, nitrile.

Component	OSHA PEL	ACGIH TWA/ TLV
Morpholine	20 ppm TWA; 70 mg/m <sup>3</sup> TWA (Skin)	20 ppm TWA (Skin)
Diethylethanolamine	2 ppm TWA	10 ppm TWA

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## PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Clear, Water white

**Physical State:** Liquid

**Odor Threshold:** No data available.

**Particle Size:** No data available

**Spec Grav./Density:** 0.996

**Viscosity:** No data available.

**Odor:** Amine.

**Molecular Formula:** No data available

**Solubility:** Complete.

**Softening Point:** No data available

**Percent Volatile:** No data available.

**Sat. Vap. Conc.:** No data available  
**Boiling Point:** 212-326  
**Flammability:** No data available.  
**Partition Coefficient:** No data available  
**Vapor Pressure:** No data available.  
**pH:** 11.7  
**Evap. Rate:** No data available.  
**Molecular weight:** No data available  
**Decomp Temp:** No data available.

**Heat Value:** No data available  
**Freezing/Melting Pt.:** No data available.  
**Flash Point:** No data available.  
**Octanol:** No data available  
**Vapor Density:** No data available.  
**VOC:** 10%, 0.83 lbs/gal  
**Bulk Density:** No data available  
**Auto-Ignition Temp:** No data available.  
**UFL/LFL:** No data available

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

**10 STABILITY AND REACTIVITY**

**Reactivity:** No data available  
**Chemical Stability:** Product is stable under normal conditions.  
**Conditions to Avoid:** Avoid contact with heat, sparks, electric arcs, other hot surfaces, and open flames. Warning: Do not mix this product with nitrites or other nitrosating agents because nitrosamines may be formed. Nitrosamines may cause cancer.  
**Materials to Avoid:** Strong Oxidizing Agents, acids, Sodium hypochlorites, calcium hypochlorites, nitrates, perchlorates, heat, isocyanates, nitrites. Product slowly corrodes copper, aluminum, zinc, and galvanized surfaces. Metals such as aluminum, zinc, tin, etc.  
**Hazardous Decomposition:** Irritating and/or toxic gases. Carbon oxides, nitrogen oxides, ammonia. Nitrogen oxide can react with water to form corrosive nitric acid.  
**Hazardous Polymerization:** Will not occur under normal conditions.

**11 TOXICOLOGICAL INFORMATION**

**Toxicity Data:**

**Eye Effects:** Corrosive- Causes severe eye irritation and burns. May cause: blurred vision, redness, pain, conjunctivitis, ulcerations, tissue destruction, permanent eye damage, blindness.  
**Skin Effects:** Corrosive- Causes severe irritation and burns. Concentrated solutions may cause: severe burns, severe necrosis, permanent skin damage. Prolonged and repeated exposure to dilute solutions may cause irritation, redness, pain and drying and cracking of the skin.  
**Inhalation Effects:** Corrosive- Cause severe irritation and burns. Vapors and mists may damage: mucous membranes, respiratory tract. Vapors or mists may cause: coughing, sore throat, shortness of breath, labored breathing, choking, bronchospasms, chemical pneumonitis, pulmonary edema, death. Effects may be delayed. Chronic exposure may cause: dental erosions, discoloration of teeth, bronchitis, and bronchial emphysema.  
**Ingestion Effects:** Corrosive- Causes severe irritation and burns. May cause damage to the: mouth, throat, esophagus, stomach, gastrointestinal tract. May cause: pain, vomiting, diarrhea, bleeding, labored breathing, burns or perforation of the gastrointestinal tract leading to ulceration and secondary infection, and death. Effects may be delayed. Aspiration into the lungs may cause chemical pneumonia and lung damage.  
**Chronic Effects:** No data available

**Carcinogenicity:** Morpholine.  
 IRAC: 3- Group 3: Not classifiable as to its carcinogenicity to humans.  
 Mouse- oral: tumorigenic- neoplastic by RTECS criteria. Lungs, thorax, or reparation: brochiogenic carcinoma. Liver: tumors.

**Mutagenicity:** Morpholine  
 Mouse- lymphocyte- morphological transformation  
 Hamster - ovary- sister chromatid exchange

**Teratogenicity:** No data available  
**Fertility Effects:** No data available

Component	Oral LD50	Dermal LD50	Inhalation LC50
Morpholine	Rat: 1450 mg/kg	Rabbit: 500 mg/ kg	8H Rat: 8000 ppm
Diethylethanolamine	Rat: 1300 mg/kg	Rabbit: 1113 mg/kg	Mouse: 5000 mg/ m3

**Acute Toxicity Estimate (ATE):**  
 No data available.

**Biodegradability** No data available.

**Ecotoxicity** Toxicity to fish:

LC50- *Leuciscus idus* (Golden orfe) - 100-220 mg/L- 96 hr (Diethylethanolamine)

LC50- *Oncorhynchus mykiss* (Rainbow trout) - 180-380 mg/L- 96 hr (Morpholine)

Toxicity to aquatic invertebrates:

EC50- *Daphnia magna* (Water flea) - 83.6 mg/L- 48 hr (Diethylethanolamine)

EC50- *Daphnia magna* (Water flea) - 80 mg/L- 48 hr (Morpholine)

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

Dispose of in accordance with local, state, and federal regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied. DO NOT pressurize, cut, weld, solder, drill, grind, or expose empty containers to heat, flame, sparks or other sources of ignition.

Hazardous Waste Number: None.

UN3267, Corrosive liquid, basic, organic, n.o.s., 8, PGII, (Diethylethanolamine, Morpholine)

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### FEDERAL REGULATIONS

TSCA Inventory Status: All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

SARA Title III Section 311/312 Category:

Immediate(Acute) Health Hazard: YES

Delayed (Chronic) Health Hazard: YES

Fire Hazard: NO

Sudden Release of Pressure Hazard:NO

Reactive Hazard: NO

SARA Section 302/304/313/HAP:

Component	CERCLA RQ (LBS)	SARA RQ(LBS)	SARA TPQ(LBS)	SARA SEC 313	US EPA HAP
Diethylethanolamine	N.A.	N.A.	N.A.	No	No
Morpholine	N.A.	N.A.	N.A.	No	No

### STATE REGULATIONS

**California-** The following components are listed under Prop 65: Ethylene glycol monomethyl ether (Trace).

**Wisconsin-** The following components are listed as a Wisconsin HAP: Diethylethanolamine, Morpholine.

HMIS III: Health = 3(Chronic), Fire = 1, Physical Hazard = 0

HMIS		
HEALTH	<input checked="" type="checkbox"/>	3
FLAMMABILITY		1
PHYSICAL HAZARD		0
PERSONAL PROTECTION	<input type="checkbox"/>	

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**Prepared By:** T. Hartmann

**Reason for Revision:** Update to Section 9

This information is given in good faith and based on our current knowledge of the product.

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