

MATERIAL SAFETY DATA SHEET
Emergency Telephone (262) 251-4977

Name: **Alliance Group, Inc.** Address: N114 W18621 Clinton Drive
City: Germantown State: Wisconsin Zip Code: 53022
Product name: **Voltreet Preferred**
Product code: 0110

Section II - Hazardous Ingredient

CAS Number	Chemical Component	%	OSHA Hazard
108-91-8	Cyclohexylamine	<15	Yes
110-91-8	Morpholine	<10	Yes

Section III Hazard Identification

Physical State: Liquid

Color: Colorless to faint yellow

Odor: Amine odor

Emergency Overview: DANGER, CORROSIVE, COMBUSTIBLE LIQUID AND VAPOR. Causes severe burns to the eyes, skin, and respiratory tract. Keep away from heat, sparks, and open flame. Harmful or fatal if swallowed. Aspiration may cause lung damage. Harmful if inhaled. Harmful if absorbed through skin. DO NOT ADD NITRITES or OTHER NITROSATING AGENTS-MAY FORM SUSPECTED CANCER CAUSING NITROSAMINES.

Potential Health Effects

Routes of exposure: Absorption, Eyes, Ingestion, Inhalation, Skin

Target organs: Eyes, Skin, Respiratory System, Central Nervous System, Liver, Kidneys.

Eyes: Corrosive-Causes severe irritation and burns.

Liquid, aerosols and vapors of this product can cause pain, tearing, reddening blindness, corneal edema, optical halos, and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes. If not removed promptly, will injure eye tissue, which may result in permanent damage.

Low vapor concentrations may cause: tearing, conjunctivitis, irritation.

Exposure to the vapor may cause minor transient edema of the corneal epithelium.

This condition, known as "glauropsia", "blue haze" or "blue-gray haze" produces a blurring of vision against a general bluish haze and the appearance of halos around bright objects. This condition will disappear spontaneously within a few hours of the exposure and leaves no sequelae. Although not detrimental to the eye, skilled tasks such as driving a motorized vehicle should not be undertaken. Repeated exposure may cause: conjunctivitis, corneal clouding, cataracts, retinal atrophy.

Skin: Corrosive, causes severe irritation and burns. Contact may cause: pain, severe excess redness, swelling, blistering, necrosis, permanent injury, tissue destruction, dermatitis, sensitization. Repeated exposure may cause sensitization.

Skin Absorption: Toxic. Harmful if absorbed through skin. May be absorbed in toxic amounts. Absorption may cause: general discomfort, malaise, injury, liver injury, kidney injury, lung injury, death.

Ingestion: Corrosive-Causes severe irritation and burns
Toxic by ingestion. May cause burns to the: mouth, throat, esophagus, stomach. Causes: chest pain, abdominal pain, nausea, vomiting, diarrhea, thirst, weakness, collapse. May cause: cardiovascular effects, death. Aspiration into lungs may occur during ingestion or vomiting, resulting in lung injury.

Inhalation: Corrosive-Causes severe irritation and burns. Vapors or mists may irritate: nose, throat, respiratory tract. Vapors or mist may cause: nasal discomfort and discharge, coughing, olfactory fatigue, difficult breathing, chest pain, headache, nausea, vomiting, dizziness, incoordination, lightheadedness, drowsiness, anxiety, pulmonary edema. Symptoms of pulmonary edema may be delayed. Prolonged or repeated contact may cause: damage to the respiratory tract. Prolonged or repeated overexposure may result in the absorption of potentially harmful amounts of materials. May cause damage to the: lungs, kidneys, liver.

Medical conditions aggravated by exposure to product:
Skin disorders, Asthma, Eye disorders, Respiratory system disorders, Bronchitis, Inflammatory or fibrotic pulmonary diseases.

Other:
This products contains one or more amines, which may produce temporary and reversible hazy or blurred vision. Symptoms disappear when exposure is terminated. Do not use sodium nitrite or other nitrosating agents in formulations containing this product. Suspected cancer causing nitrosamines could be formed.

Carcinogenic Ingredients: OSHA: NO NTP: NO IARC: NO
ACGIH lists Cyclohexylamine as an A4-Not Classifiable as a Human Carcinogen.

Section IV First Aid Procedures

**First Aid Procedure - Never give fluids or induce vomiting if patient is unconscious or having convulsions.
CALL A PHYSICIAN**

Eyes: Immediately flush with large amounts of cool water for 15 minutes, holding lids apart. Tilt head to avoid contaminating unaffected eye. Get medical attention immediately. Washing within one minute is essential to achieve maximum effectiveness. Continue flushing for an additional 15 minutes if medical attention is not immediately available. Do not attempt to neutralize with chemical agents.

Skin: Wash contaminated area with cool water for at least 15 minutes. Remove contaminated clothing and wash before reuse. Seek medical attention immediately.

Do not reuse clothing or shoes until cleaned. Do not apply oils or ointments unless ordered by a physician. Do not attempt to neutralize with chemical agents. Discard contaminated leather articles such as shoes, belt. Discard footwear that cannot be decontaminated.

Ingestion: Do not induce vomiting. Give a quart of water. CALL A PHYSICIAN IMMEDIATELY. IF UNCONSCIOUS or in convulsions, take immediately to a hospital or a physician. Never induce vomiting or give anything by mouth to an unconscious victim. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs.

Inhalation: Remove victim to fresh air. If breathing has stopped, resuscitate and administer oxygen if available. If breathing is difficult, give oxygen. GET MEDICAL ATTENTION IMMEDIATELY.

Note to physician: Treat as an alkaline substance (similar to ammonia). Swallowing of this corrosive material may result in severe ulceration, inflammation, and possible perforation of the upper alimentary tract, with hemorrhage and fluid loss. Aspiration of this product during induced emesis can result in severe lung injury. If evacuation of stomach is necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation.

Section V - Fire and Explosive Data

Flash Point: 125°F (TCC):

Autoignition Temperature: ~560 Deg. F (Cyclohexylamine)
~590 Deg. F (Morpholine)

Lower Explosive Limit: ~1.5% Upper Explosive Limit: ~10.8%

Extinguishing Media: water fog, CO₂, foam, dry chemical. Alcohol foam

Water may be ineffective but should be used to cool fire exposed structures and vessels.

Special Fire Hazards and Equipment Required: Evacuate area of unprotected personnel. Wear protective clothing. Firefighters should wear NIOSH approved self-contained breathing apparatus and impervious clothing. Cool fire exposed containers with water spray, since containers can build up pressure if exposed to heat (fire). Remain upwind of fire to avoid hazardous vapors and decomposition products. Runoff from fire control may cause pollution.

Fire and Explosion Hazards: Vapors are heavier than air and can settle in low or confined areas, or travel long distances to a source of ignition and flash back. Can release vapors that form explosive mixtures at temperatures at or above the flashpoint. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of. Toxic fumes may be given off when material is exposed to fire. This material may produce a floating fire.

Hazardous Combustion Products:

Carbon dioxide, Carbon monoxide, Nitrogen oxides, Ammonia, Aldehydes, Ketones, Toxic and / or hazardous gases, Irritating gases.

Section VI - Accidental Release Measures

Spill Clean Up Procedures:

Corrosive Material. Combustible Liquid.

Steps to be taken in case of spills: Wear suitable protective equipment. Eliminate all sources of ignition. Evacuate unprotected personnel. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8. Never exceed occupational exposure. Stop the flow of material, if this is without risk. If fire potential exists, blanket spill with alcohol type aqueous film forming foam or use water spray to disperse vapors. Contain spill. Collect for disposal on inert non-flammable absorbent medium in a labeled approved chemical waste container. Do not use sawdust or other cellulose-type material. Toxic to fish. Avoid discharge to natural waters. Notify authorities if entry occurs. Follow all governmental regulations.

Section VII - Handling and Storage

Storage:

Corrosive material, combustible liquid. Store in a cool, well ventilated area away from all sources of ignition and out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep container tightly closed. Do not store in unlabeled or mislabeled containers. Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground transfer containers and equipment.

Handling:

Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink or smoke in work areas. Wash thoroughly after handling. Empty containers retain product residue (vapor, dust, or liquid) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

Always open containers slowly to allow any excess pressure to vent. Use non-sparking tools. Ground lines and equipment used during transfer to reduce the possibility of static spark-initiated fire or explosion. Ground all equipment and containers before opening to prevent accumulation of static charge.

Section VIII - Exposure Controls/Personal Protection

Engineering Controls: Local exhaust ventilation, process enclosures, or other engineering controls are imperative when handling or using this product to avoid over exposure. Use explosion proof ventilation equipment. Maintain adequate ventilation. Do not use in a closed or confined spaces. Avoid creating dust or mist. Keep levels below exposure limits. To determine exposure limits, monitoring should be performed regularly.

Respiratory Protection: Respiratory protection must be worn if ventilation does not eliminate symptoms or keep levels below recommended exposure levels. If limits are exceeded wear: NIOSH - approved air purifying respirator with: Organic vapor cartridge and ammonia/methylamine cartridge. NIOSH approved full face piece positive pressure air supplied respirator. NIOSH approved self contained breathing apparatus (with full face shield). Do not exceed limits established by the respirator manufacture. All respiratory protection programs must comply with OSHA 20 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Protective Equipment:

Eyes: Chemical goggles, full face shield. Do not wear contact lenses.
Gloves: Prevent contact with this product. Consult your glove manufacture for compatibility. Impervious gloves.

Other: Impervious protective clothing, apron, gauntlets, eyewash, safety shower

Hygienic Practices: Wash hands before eating. Remove contaminated clothing and wash before reuse. Use only in a well ventilated area. Follow all MSDS/label precautions even after the container is emptied because they may retain product residues. Avoid contact with skin, eyes, and clothing. Ground and bond containers when transferring material.

Exposure Guidelines	OSHA	ACGIH
Component	PEL	STEL/C TWA STEL/C
Cyclohexylamine	10 ppm+	N.E. 10 ppm N.E.
Morpholine	20 ppm S	N.E. 20 ppm S N.E.
	20 ppm S+	30 ppm S+

Note: + Vacated 1989 OSHA PEL(S). S= Skin notation
N.E. = Not Established

Section IX - Physical Data

Solid:	Liquid: X	Appearance: water white to light yellow
Specific Gravity: .9938 at 20/20 °C		Odor: amine
Solubility in water: Complete		Freezing Point: unknown
pH: 12.31 as is		Boiling Point: 212-274 °F
Vapor Pressure: N.D.		Vapor Density: N.D.
Evaporation Rate: N.D.		% Volatile: N.D.
Odor Threshold: N.D.		Viscosity: N.D.
VOC (wt%): 8.5		VOC (lbs/gal): .70

Section X - Reactive Hazards

Hazardous Polymerization: will not occur under normal conditions
Stability: Stable under normal storage conditions.

Conditions to avoid: Heat and open flames, sparks, electric arcs

Incompatibility: Acids and strong oxidizing agents. Sodium hypochlorite, Calcium hypochlorite. Heat. Do not mix this product with nitrites or nitrosating agents because nitrosamines may be formed. Nitrosamines may cause cancer. Product slowly corrodes copper, aluminum, zinc, and galvanized. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. A reaction accompanied by large heat release occurs when the product is mixed with acids. Heat generated may be sufficient to cause vigorous boiling creating a hazard due to splashing or splattering of hot material.

Hazardous Decomposition Products: Burning can produce CO, CO₂, nitrogen oxide, ammonia, aldehydes, ketones and unknown TOXIC gases. Nitrogen oxides can react with water to form corrosive nitric acid.

Section XI Toxicological Properties

No product data available.

Component toxicological information is available. Contact the address in Section 1 of this MSDS.

Section XII Ecological Information

Keep away from heat, sparks, and flame

Ecotoxicological Information:

Extensive data on individual chemicals, call for information.

Chemical Fate Information:

Extensive data on individual chemicals, call for information.

Section XIII Disposal Considerations

Dispose of in a permitted hazardous waste management facility following all local, state and federal regulations.

Since emptied containers retain product residues, follow label warnings even after container is emptied. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

Hazardous Waste Number: D001; D002

Note: An additional EPA Hazardous Waste Number may include: D018

Section XIII Transporation Information

DOT Proper Shipping Name: Corrosive Liquid, Basic, Organic N.O.S.
(Contains Cyclohexylamine, Morpholine)

DOT Hazard Class: Class 8

DOT UN/NA Number: UN3267

Packing Group I

Resp. Guide Page:

Label Required: Corrosive

Note: This material is not classified as a flammable liquid per 49 CFR 173.120 (a) (5)

Section XV Regulatory Information

CERCLA-SARA Hazard Category:

This product has been reviewed according to the EPA Hazard Categories promulgated under Section 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

SARA Title III Section 311/312 Category

Immediate (Acute) Health Hazard: Yes
Delayed (Chronic) Health Hazard: Yes
Fire Hazard: Yes
Sudden Release of Pressure Hazard: No
Reactive Hazard: No

SARA Section 302/304/313/HAP

Component	RQ (lbs) (*1)	RQ (lbs) (*2)	TPQ (lbs) (*3)	SEC 313 (*4)	HAP (*5)
Cyclohexylamine	N.A.	10000	10000	No	No
Morpholine	N.A.	N.A.	N.A.	No	No

-----Footnotes-----

*1 = CERCLA Reportable Quantity *3 = SARA EHS Threshold Planning Quantity
*2 = SARA Reportable Quantity *4 = SARA 313 Toxic Chemical/Category
*5 = U.S. EPA Hazardous Air Pollutant

State Regulations:

Wisconsin: The following components are listed as a Wisconsin HAP:

Cyclohexylamine

California: The following components are listed under Prop 65:

Benzene (<0.007%)

Aniline (<0.007%)

Ethylene glycol monomethyl ether (trace)

Toxic Substance Control Act:

The chemical substances in this product are on the TSCA Section 8 Inventory.

Section XVI Other Information

	HMIS	NFPA	Key
Health	3*	3	0- minimal
Flammability	2	2	1- slight
Reactivity	0	0	2- moderate
Warning	N/A	N/A	3- serious 4- severe

Legend: N.A. - Not Applicable N.E. - Not Established
N.D. - Not Determined * - Chronic Health Hazard
HAP - Hazardous Air Pollutant
VOC - Volatile Organic Compound

The above information is believed to be accurate and discloses the known hazards for this product as of this date. No additional warranties are made.
Date: January 5, 2004 By Dennis C. Miller