MATERIAL SAFETY DATA SHEET

SECTION - I : PRODUCT AND COMPANY IDENTIFICATION

Trade Name
VEEDOL ANTIFREEZE 100 %

Manufacturer's / Supplier's Name
VEEDOL INTERNATIONAL DMCC

Street Address
1501, Indigo Icon, JLT

City
Dubai, UAE

P. O. Box
117019

Emergency Telephone No.
+971 4 3688416

SECTION II : COMPOSITION AND INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mono Ethylene Glycol</td>
<td>107-21-1</td>
</tr>
<tr>
<td>Di-Ethylene Glycol</td>
<td>111-46-6</td>
</tr>
<tr>
<td>De Ionised Water</td>
<td>7732-18-5</td>
</tr>
<tr>
<td>Anti-Corrosion Inhibitor Package</td>
<td>MIXTURE</td>
</tr>
</tbody>
</table>

This product meets the definition of a hazardous chemical when evaluated according to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Hazards:
Flammable/Combustible -- Acute Toxin X Chronic Toxin X Carcinogen --
Pressure -- Reactive -- Exposure Limit X Target Organ X Other --
Other: No information available

SECTION III : HAZARDOUS IDENTIFICATION

Emergency and Hazards Overview
WARNING: HARMFUL OR FATAL IF SWALLOWED
If swallowed, IMMEDIATELY contact a poison control center, emergency treatment center or physician

NFPA Ratings: Health 2 Flammability 1 Reactivity 0
Primary Route of Exposure: Skin X Inhalation -- Eye --

Health Effect Information
Eye Contact
Avoid eye contact. This product may be slightly irritating to the eyes upon direct contact. This product has a low vapour pressure and is not expected to present a hazard to the eyes at ambient conditions. Exposure to mists and vapors may be irritating to the eyes.

Skin
Avoid skin contact. Prolonged or repeated contact may result in slight skin irritation.
Inhalation Avoid prolonged inhalation of mist or vapors. This product has a low vapor pressure and is not expected to present an inhalation hazard at ambient conditions. Caution should be taken to prevent aerosolization or misting of this product. This product may be considered a low health hazard unless inhaled in very high concentrations. Acute and chronic overexposures may be irritating to the respiratory tract. Symptoms of overexposure include respiratory tract irritation, headache, drowsiness and narcosis.

Ingestion Do not ingest. Harmful or fatal if swallowed. Signs and symptoms include behavioural disorders, drowsiness, vomiting, diarrhea, visual disturbances, thirst, convulsions, cyanosis and rapid heart rate. Signs and symptoms are central nervous system stimulation followed by depression, cardiopulmonary effects and later potentially fatal kidney damage. (See Section XI for Toxicological Information)

Medical Conditions Aggravated by Exposure: No information available

Other: A hazard due to inhalation may exist in circumstances where ethylene glycol is handled hot or where agitation or other mechanical operations may create an excessive fog or heavy mist. Ethylene glycol is not readily absorbed through skin in acutely toxic amounts. However, animal studies and human case reports suggest that absorption through the skin repeatedly over a prolonged period of time can present a health hazard.

SECTION IV : FIRST AID INFORMATION

Eye Contact Immediately flush eyes with large amounts of water and continue flushing for 15 mins or until irritation subsides. If irritation persists, seek medical attention.

Skin Contact Wash contaminated area thoroughly with soap and water

Inhalation This material has a low vapor pressure and is not expected to present an inhalation exposure at ambient conditions. If vapor or mist is generated when the material is heated or handled, remove victim from exposure. If discomfort persists seek medical attention.

Ingestion If person is conscious, give large quantities of water immediately. Induce vomiting. Seek immediate medical attention. Do not attempt to give anything by mouth to an unconscious person.

Notes to Physician Immediate medical treatment is imperative, especially if a large dose has been ingested. Administer alkali to correct acidosis. Hemodialysis is effective in the management of poisoning. Intravenous administration of ethanol has been effective.

Other No information available.
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E-mail: office@veedol.ae | www.veedol.ae

<table>
<thead>
<tr>
<th>PRODUCT NAME</th>
<th>Sheet</th>
<th>Revision No.</th>
<th>Last Revision</th>
<th>Issue Date</th>
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<tbody>
<tr>
<td>VEEDOL ANTIFREEZE 100 %</td>
<td>3</td>
<td>0</td>
<td>25-10-2012</td>
<td></td>
</tr>
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</table>

SECTION V : FIRE AND EXPLOSION INFORMATION

Flammable Properties
Flash Point
Flammable Limits in Air  
Upper Percent 15.30%
Lower Percent 3.20%
Autoignition Temperature 748 F, 397.8 C  
NFPA Classification Class III-B combustible liquid  
Extinguishing Media Use dry chemical, alcohol foam or carbon dioxide

Test Method: ASTM D 3828-81-Setaflash

Test Method: No information available

Fire Fighting Measures

Water may be ineffective but can be used to cool containers exposed to heat or flame to prevent vapor pressure build-up and possible container rupture. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid.

Unusual Fire and Explosion Conditions

Dense smoke may be generated while burning. Carbon monoxide, carbon dioxide and other oxides may be generated as products of combustion.

Hazardous Combustion By-Products No information available

Others No information available

SECTION VI : ACCIDENTAL RELEASE MEASURES

Personnel Safeguards
Consult Health Effect Information in Section III, Personal Protection Information in Section VIII, Fire and Explosion Information in Section V and Stability and Reactivity Information in Section X.

Regulatory Notification
Notify appropriate authorities of spill.

Containment and Clean up
Contain spill immediately. Do not allow spill to enter sewers or watercourses. Absorb with appropriate inert material such as sand, clay, etc. Large spills may be picked up using vacuum pumps, shovels, buckets or other means and placed in drums or other suitable containers.

Other No information available.
SECTION VII : HANDLING AND STORAGE INFORMATION

Handling  No special handling procedures are necessary
Storage    Do not transfer to unmarked containers. Store in closed containers away from heat, sparks, open flame or oxidising materials

Empty Containers Warnings
Drums     Empty containers retain product residue and can be dangerous
Plastic   Do not reuse this container. Empty container may retain product residues.
Other     No information available

SECTION VIII : EXPOSURE CONTROLS / PERSONAL PROTECTION INFORMATION

Exposure Limits and Guidelines
Components CAS No. Exposure Limit
ETHYLENE GLYCOL 107-21-1 ACGIH-TLV:Ceiling 50 ppm

Personal Protective Equipment
Eye/face Protection Eye protection is not required under conditions of normal use. If material is handled such that it could be splashed into eyes, wear plastic face shield or splash-proof safety goggles.
Skin Protection Skin protection is not required under conditions of normal use. For prolonged or repeated exposures, use impervious clothing (boots, gloves, aprons, etc) over parts of the body subject to exposure. Impervious clothing should not consist of polyvinyl alcohol, launder soiled clothes.
Respiratory Protection Respiratory protection is not required under conditions of normal use. If vapor or mist is generated when the material is heated or handled, use an organic vapor respirator with a dust and mist filter. All respirators must be NIOSH certified.
Personal Hygiene Consumption of food and beverage should be avoided in work areas where hydrocarbons are present. Always wash hands and face with face with soap and water before eating, drinking or smoking.

Engineering Controls / Work Practices
Ventilation General room ventilation is normally sufficient to prevent buildup of hazardous concentrations. If vapor or mist is generated when the material is heated or handled, adequate ventilation must be provided
Other No information available
SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

<table>
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<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Green</td>
</tr>
<tr>
<td>Odour</td>
<td>Mild</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>&lt; 0.1 mm Hg @ 20 °C</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Vapour Density</td>
<td>(air=1):2.1</td>
</tr>
<tr>
<td>pH</td>
<td>8 - 9</td>
</tr>
<tr>
<td>Percent Volatile by Volume</td>
<td>97</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>171 °C</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.103 Average</td>
</tr>
<tr>
<td>Alkalinity mg KOH/gm</td>
<td>18</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>- 18 °C</td>
</tr>
<tr>
<td>Corrosion</td>
<td>Pass</td>
</tr>
<tr>
<td>Viscosity</td>
<td>8 cSt @ 40 °C</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Completely soluble in water</td>
</tr>
<tr>
<td>Octanol / Water Coefficient: Log Kow</td>
<td>No data available</td>
</tr>
</tbody>
</table>

SECTION X: STABILITY AND REACTIVITY

- Chemical stability: Stable
- Conditions to avoid: None
- Incompatible Materials to avoid: May react with strong oxidizing agents
- Other: No information available

SECTION XI: TOXICOLOGICAL INFORMATION

- Primary Eye Irritation: 15-25/110 (Draize-rabbit); slightly irritating for ethylene glycol
- Primary Skin Irritation: 0.5-3.0/8.0 (Draize-rabbit); slightly irritating for ethylene glycol
- Acute Dermal Toxicity: No information available
- Subacute Dermal Toxicity: No information available
- Dermal Sensitization: No information available
- Inhalation Toxicity: If warning discomfort from excessive concentrations are heeded, no health problems are expected. May lead to kidney, liver, blood and CNS disorders.
- Inhalation Sensitization: No information available
- Oral Toxicity: Ingestion of small quantities (100 ml) of ethylene glycol may be fatal
- Mutagenicity: The absence of carcinogenic potential for ethylene glycol has been supported by numerous in vitro genotoxicity studies showing that it does not produce mutagenic or clastogenic effects.
- Carcinogenicity: Based on data from long-term animal studies, ethylene glycol does not pose a carcinogenic risk to humans
Reproductive and Development Toxicity: Ethylene glycol has been shown to produce reproductive and developmental effects in experimental animals. The no-affect doses for development toxicity for ethylene glycol given by gavage over the period of organogenesis is has been shown to be 150 mg/kg/day for the mouse and 500 mg/kg/day for the rat. The relevance of these reproductive and developmental animal studies to human exposures to ethylene glycol is currently unknown.

Teratogenicity: Ethylene glycol has been shown to produce dose-related teratogenic effects in rats and mice when given by gavage or in drinking water at high concentrations or doses.

Immunotoxicity: No information available.

Neurotoxicity: No information available.

Other: No information available.

SECTION XII: ECOLOGICAL INFORMATION

Aquatic Toxicity: This product is practically non-toxic to aquatic organisms on an acute basis LC50 > 100 mg/L.

Terrestrial Toxicity: No information available.

Chemical Fate and Transport: Bio concentration potential is low (Log Kow<3).

Other: No information available.

SECTION XIII: DISPOSAL INFORMATION

Regulatory Information: All disposals must comply with federal, state and local regulations. The material, if spilled or discarded, may be regulated waste. Refer to the state and local regulations. Department of transportation (DOT) regulations may apply for transporting this material when spilled.

Waste Disposal: Waste material may be landfilled or incinerated at an approved facility.

Methods: Material should be recycled if possible.

Other: No information available.

SECTION XIV: TRANSPORT INFORMATION

Department of Transportation (DOT): Not Regulated.
Highway / Rail (Bulk): Not Regulated.
Highway / Rail (Non-Bulk): Non Regulated.
SECTION XV : REGULATORY INFORMATION

Regulatory Lists Searched : The components listed in Section 2 of this MSDS were compared to substances that appear on the following regulatory lists. Each list is numerically identified. See Regulatory Search below.

DIETHYLENE GLYCOL: 23, 33, 35, 50, 65, 66, 69, 80, 81, 82, 83, 84, 85
ETHYLENE GLYCOL: 15, 20, 23, 30, 33, 35, 42, 46, 50, 61, 63, 65, 66, 67, 68, 69, 80, 81, 82, 83, 84, 85
WATER: 80, 81, 83, 84, 85

SECTION XVI : OTHER INFORMATION

Health and Environmental Label Language

WARNING: Contains ethylene glycol. Can cause central nervous system, cardiopulmonary and kidney disorders.

PRECUATIONARY MEASURES: Do not drink antifreeze or solution. Do not store in open or unlabeled containers.

FIRST AID: If swallowed, IMMEDIATELY contact a poison control center, emergency treatment center or physician. Ethylene glycol base.

NOTE TO PHYSICIAN: Immediate treatment is extremely important

DISPOSAL OF USED ANTIFREEZE COOLANT

Observe local laws and regulations. Recycling used antifreeze recommended instead of disposal. Dispose in local sewage treatment systems only where permitted. Do not drain on the ground or into storm water drainage systems

KEEP OUT OF REACH OF CHILDREN AND PETS

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