

VEEDOL INTERNATIONAL DMCC

Unit 1501 | Indigo Icon | Jumeirah Lakes Towers
P.O. Box No. 117019 | Dubai | UAE
Tel: +971-4-3688416 | Fax: +971-4-3688418
E-mail: office@veedol.ae | www.veedol.ae



MATERIAL SAFETY DATA SHEET

PRODUCT NAME VEEDOL ANTIFREEZE 100 %	Sheet Revision No. Last Revision Issue Date	1 of 7 0 ----- 25-10-2012
--	--	------------------------------------

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

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

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.

VEEDOL INTERNATIONAL DMCC

Unit 1501 | Indigo Icon | Jumeirah Lakes Towers

P.O. Box No. 117019 | Dubai | UAE

Tel: +971-4-3688416 | Fax: +971-4-3688418

E-mail: office@veedol.ae | www.veedol.ae



PRODUCT NAME VEEDOL ANTIFREEZE 100 %	Sheet Revision No. Last Revision Issue Date	2 of 7 0 ----- 25-10-2012
--	--	------------------------------------

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.

VEEDOL INTERNATIONAL DMCC

Unit 1501 | Indigo Icon | Jumeirah Lakes Towers
P.O. Box No. 117019 | Dubai | UAE
Tel: +971-4-3688416 | Fax: +971-4-3688418
E-mail: office@veedol.ae | www.veedol.ae



PRODUCT NAME VEEDOL ANTIFREEZE 100 %	Sheet Revision No. Last Revision Issue Date	3 of 7 0 ----- 25-10-2012
--	--	------------------------------------

SECTION V : FIRE AND EXPLOSION INFORMATION

Flammable Properties

Flash Point >247 F, >119.4 C **Test Method:** ASTM D 3828-81-Setaflash

Flammable Limits in Air

Upper Percent 15.30%

Lower Percent 3.20%

Autoignition Temperature 748 F, 397.8 C **Test Method:** No information available

NFPA Classification Class III-B combustible liquid

Extinguishing Media Use dry chemical, alcohol foam or carbon dioxide

Fire Fighting Measures

Special Fire Fighting Procedures and Equipment 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.

VEEDOL INTERNATIONAL DMCC

Unit 1501 | Indigo Icon | Jumeirah Lakes Towers
P.O. Box No. 117019 | Dubai | UAE
Tel: +971-4-3688416 | Fax: +971-4-3688418
E-mail: office@veedol.ae | www.veedol.ae



PRODUCT NAME VEEDOL ANTIFREEZE 100 %	Sheet Revision No. Last Revision Issue Date	4 of 7 0 ----- 25-10-2012
--	--	------------------------------------

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

VEEDOL INTERNATIONAL DMCC

Unit 1501 | Indigo Icon | Jumeirah Lakes Towers
P.O. Box No. 117019 | Dubai | UAE
Tel: +971-4-3688416 | Fax: +971-4-3688418
E-mail: office@veedol.ae | www.veedol.ae



PRODUCT NAME VEEDOL ANTIFREEZE 100 %	Sheet Revision No. Last Revision Issue Date	5 of 7 0 ----- 25-10-2012
--	--	------------------------------------

SECTION IX : PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Green
Odour	Mild
Vapor Pressure	< 0.1 mm Hg @ 20 °C
Physical State	Liquid
Vapour Density	(air=1):2.1
pH	8 - 9
Percent Volatile by Volume	97
Boiling Point	171 °C
Specific Gravity	1.103 Average
Alkalinity mg KOH/gm	18
Freezing Point	- 18 °C
Corrosion	Pass
Viscosity	8 cSt @ 40 °C
Solubility in Water	Completely soluble in water
Octanol / Water Coefficient: Log K _{ow}	No data available

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

VEEDOL INTERNATIONAL DMCC

Unit 1501 | Indigo Icon | Jumeirah Lakes Towers

P.O. Box No. 117019 | Dubai | UAE

Tel: +971-4-3688416 | Fax: +971-4-3688418

E-mail: office@veedol.ae | www.veedol.ae



PRODUCT NAME VEEDOL ANTIFREEZE	Sheet Revision No. Last Revision Issue Date	6 of 7 0 ----- 25-10-2012
--	--	------------------------------------

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 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 K _{ow} <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 Methods	Waste material may be land filled or incinerated at an approved facility. Material should be recycled if possible.
Other	No information available

SECTION XIV : TRANSPORT INFORMATION

Department of Transportation (DOT)	
Highway / Rail (Bulk)	Not Regulated
Highway / Rail (Non-Bulk)	Non Regulated

VEEDOL INTERNATIONAL DMCC

Unit 1501 | Indigo Icon | Jumeirah Lakes Towers
P.O. Box No. 117019 | Dubai | UAE
Tel: +971-4-3688416 | Fax: +971-4-3688418
E-mail: office@veedol.ae | www.veedol.ae



PRODUCT NAME VEEDOL ANTIFREEZE 100 %	Sheet Revision No. Last Revision Issue Date	7 of 7 0 ----- 25-10-2012
--	--	------------------------------------

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.

PRECAUTIONARY 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

DISCLAIMER

The data and information contained herein are being furnished for informational purposes only, upon the express condition that each customer shall make its own assessment of appropriate use, appropriate shipping, transfer and storage of materials manufactured by Veedol International DMCC. Although based on information sources it is considered to be accurate and reliable, Veedol International DMCC makes no warranty, either express or implied, including any warranties of merchantability or fitness for a particular purpose, regarding the validity of this information, the information sources upon which the same are based, or results to be obtained, and expressly disclaims liabilities for damages or injuries resulting from the use thereof.