

# ABU DHABI NATIONAL OIL COMPANY FOR DISTRIBUTION

## PRODUCT HEALTH & SAFETY DATA SHEET



### 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION

Product : **ADNOC AUTOCOOL 40%**

Date of Issue : **APRIL, 2004**

#### Company Information :

Abu Dhabi National Oil Company For Distribution  
P.O Box: 4188,  
Abu Dhabi ,  
United Arab Emirates.

Tel : +971-2-6771300.

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

Mono Ethylene Glycol based with Ethylene Glycol 40%  
R22 – Harmful if swallowed.  
Xn – Harmful.

### 3. HAZARD IDENTIFICATION

Liquid or vapours may cause slight irritation. However, in common with most mineral oils, prolonged and repeated skin contact may cause dermatitis. Handling precautions should be strictly observed.

### 4. FIRST AID:

#### INHALATION :

At ambient/normal handling temperature, inhalation of vapors is normally not a problem. If overexposed to oil mist, remove from further exposure. Administer artificial respiration if breathing is irregular or has stopped. Get prompt medical attention.

#### SKIN CONTACT :

Wash thoroughly with plenty of water, using soap . Remove contaminated clothing, If irritation persists, get medical attention.

#### EYE CONTACT :

Rinse immediately with plenty of water until irritation subsides. If irritation persists, obtain medical advice.

#### INGESTION:

If swallowed , DO NOT induce vomiting , keep at rest and call a physician.

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### 5. FIRE – FIGHTING MEASURES

#### **EXTINGUISHING MEDIA:**

Foam, dry chemical powder, carbon dioxide, **alcohol-resistant foam, water fog/spray**

#### **FIRE AND EXPLOSION HAZARDS:**

Combustible material, low hazard. The product can form flammable mixtures or can burn only on heating above the flash point. However, minor contamination by hydrocarbons of higher volatility may increase the hazard.

#### **SPECIAL FIRE-FIGHTING PROCEDURES:**

Water fog or spray, to cool fire-exposed surfaces (e.g. containers) and to protect personnel, should only be used by personnel trained in fire fighting.

**Cut off “fuel”, depending on circumstances, either allow the fire to burn out under controlled conditions or use foam or dry chemical powder to extinguish the fire.**

**Respiratory and eye protections required for fire fighting personnel exposed to fumes or smoke.**

#### **HAZARDOUS COMBUSTION PRODUCTS:**

Smoke, oxides of sulphur, phosphorus and nitrogen, and carbon monoxide in the event of incomplete combustion.

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### 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS :** See Section 8.

#### **LAND SPILL :**

Shut off source taking normal safety precautions. Prevent liquid from entering sewers, water courses or low lying areas, advise the relevant authorities if it has, or if it contaminates soil/vegetation. Take measures to minimize the effects on ground water.

Recover by skimming or pumping using explosion proof equipment, or contain spilled liquid with booms, sand, or other suitable absorbent and remove mechanically into containers.

If necessary, dispose of adsorbed residues as directed in Section 13.

#### **WATER SPILL:**

Confine the spill immediately with booms. Warn other shipping. Notify port and other relevant authorities. Remove from the surface by skimming or with suitable absorbents. Disperse the residue in unconfined waters, if permitted by local authorities and environmental agencies.

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### 7. HANDLING AND STORAGE

Store the product in cool, well ventilated surroundings, well away from sources of ignition.

Provide suitable mechanical equipment for the safe handling of drums and heavy packages.

Electrical equipment and fittings must comply with local regulations regarding fire prevention with this class of product.

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### 7. HANDLING AND STORAGE (continued)

Load/Unload °C : (Ambient to 40 °C)

Storage °C : (Ambient to 40 °C)

**PACKING MATERIALS** : Steel drums or tanks , Do not use galvanized containers.

#### **SPECIAL PRECAUTIONS :**

Keep containers closed when not in use.

Prevent small spills and leakages to avoid slip hazard, Keep away from foodstuffs.

### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### **OCCUPATIONAL EXPOSURE LIMIT:**

Ethylene Glycol - 10 mg/m<sup>3</sup> (particulate) , 60 mg m<sup>3</sup> (vapour) , 125 mg m<sup>3</sup> (vapour). STEL,  
Diethylene Glycol – 23 ppm (100 mg/ m<sup>3</sup>)

#### **PERSONAL PROTECTION:**

In open systems where contact is likely, wear safety goggles, chemical- resistant overalls, and chemically impervious gloves.

Where only incidental contact is likely, wear safety glasses with side shields. No other special precautions are necessary provided skin/eye contact is avoided.

When concentrations in air may exceed the occupational exposure limit, and where engineering, work practices, or other means of exposure reductions are not adequate, approved respirators may be required.

### 9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance/Odour	: Clear liquid
Specific Gravity @ 25°C , Kg/ltr	: 1.05
Reserve Alkalinity , min	: -
Freezing Point 50% vol in water , °C	: -17 max.
Vapour Pressure, kPa	: ---
Vapour Density @ 1 Bar (air=1)	: ---
Evaporation Rate (n-butyl acetate=1)	: Non-volatile
pH 50% volume in water	: 7.9
Flash Point, COC , °C	: -
Auto ignition Temperature , °C	: ----
Partition co-efficient (n-octanol/water)	: Data not available

### 10. STABILITY AND REACTIVITY

**STABILITY (Thermal, Light, etc)** : Stable

**CONDITIONS TO AVOID** : Keep away from heat sources, open flames and other sources of ignition.

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### **10. STABILITY AND REACTIVITY (continued)**

#### **INCOMPATIBLE MATERIALS:**

Avoid contact with strong oxidants such as liquid chlorine and concentrated oxygen.

#### **HAZARDOUS DECOMPOSITION PRODUCTS:**

Product does not decompose at ambient temperature.

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### **11. TOXICOLOGICAL INFORMATION**

#### **EFFECTS OF OVER EXPOSURE:**

##### **INHALATION:**

Negligible hazard at ambient / normal handling temperatures.  
Elevated temperatures or mechanical action may form vapours, mists, or fumes which may be irritating to the eyes, nose, throat and lungs.  
Avoid breathing vapours, mists or fumes.

##### **SKIN CONTACT:**

Low order of acute toxicity.  
Prolonged or repeated contact may lead to mild skin irritation.  
Low vapour pressure at ambient temperatures therefore low risk. At elevated temperatures, vapour may irritate respiratory tract.

##### **EYE CONTACT:**

Slightly irritating, but does not injure eye tissues.

##### **INGESTION:**

Low order of acute / systemic toxicity.

##### **CHRONIC:**

Continued exposure to the vapours of MEG is reported to induce unconsciousness, nystagmus and lymphocytosis.

#### **TOXICITY DATA:**

**LD50 oral rat: 5840 mg/kg (MEG)**

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### 12. ECOLOGICAL INFORMATION

Autocool immediately following a release into the environment, will remain largely on the soil surface, and in water will remain largely on the water surface. Based on chemical/physical information from the literature for this product category, no harmful effects to terrestrial or aquatic habitats would be expected. This product is expected to be resistant to biodegradation and to persist in the environment. This product may contain additives for which no environmental data is available.  
Ecotoxicity : LD50 G.Orfe: >1000 mg/l

### 13. DISPOSAL CONSIDERATIONS

Collect and dispose of waste product at an authorized disposal facility, in conformance with national and local regulations, and in accordance with EEC Directives on the disposal of waste oil.

### 14. TRANSPORT INFORMATION

USUAL SHIPPING CONTAINERS : Rail Cars, tank trucks, and drums

TRANSPORT TEMPERATURE °C : Ambient to 40 °C

### 15. REGULATORY INFORMATION

**EC DANGEROUS SUBSTANCES/PREPARATIONS CLASSIFICATION** : Not Regulated.

Refer to your national legislation implementing the EC Directive 91/155/EC

### 16. OTHER INFORMATION

#### PRODUCT TYPE/USES :

Monethylene Glycol based anticool for all types of passenger cars, trucks & buses.

#### Corrosion Test Results

Weight Loss (mg)						
Product	Copper	Solder	Brass	Steel	Cast Iron	Al Alloy
Antifreeze Hot Test	0.3	1.8	0.4	3.2	3.1	2.9
Antifreeze Cold Test	0	4.2	0	0.5	1.3	0
BS 6580 Spec	10	15	10	10	10	15

The results show the very satisfactory performance against the BS 6580 specs in both hot & cold test