



## MAK REDI COOL

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### MATERIAL SAFETY DATA

#### 1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

TRADE NAME : MAK REDI KOOL

CAS NO. : Mixture

GENERIC/CHEMICAL NAME : Mixture

PRODUCT TYPE : Ethylene Glycol Base Engine Coolant

SUPPLIER : Bharat Petroleum Corporation Limited,  
4 & 6, Currimbhoy Road, Ballard Estate,  
Mumbai – 400 001. Maharashtra  
India.  
Tel. No. 022 – 24176354  
  
Fax No. 022 – 24166512/24182511

#### 2. COMPOSITION AND INFORMATION ON INGREDIENTS

100% Bharat Super Kool containing :

<u>Components</u>	<u>Amount, % Wt.</u>	<u>CAS No.</u>	<u>EC No.</u>
Ethylene Glycol	20 – 30	107 21 1	202 473.3
Organic acid, sodium salt	Harmful if swallowed 2 – 6 Possible risk of harm to the unborn child	Confidential	-
Additives & Water	1 – 71.5	Mixture	-

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### 3. HAZARDS IDENTIFICATION

- WARNING** : Harmful if swallowed. It may enter lungs and cause damage, if swallowed.  
May cause dizziness and drowsiness  
Based on animal data, it may cause adverse reproductive effects and birth defects
- EXPOSURE** : Causes severe effect to man.
- INHALATION** : Vapours of mist, in excess of permissible concentrations, or in unusually high concentrations, generated from the material, spraying or from exposure in poorly ventilated areas or confined space, may cause irritation of the nose and throat, headache, nausea and drowsiness.
- SKIN** : May cause a light irritation. Prolonged contact, as with clothing wetted with material, may cause more severe irritation and discomfort, seen as local redness and swelling.
- EYE** : May cause irritation to eye on contact. It gives mild discomfort and seen as slight excess redness of the eye
- INGESTION** : Ethylene glycol is toxic when swallowed. A lethal dose for an adult is 1gm. per kilogram. Symptoms include staggering, slurred speech, loss of coordination, confusion, faintness, nausea, vomiting, increased heart rate, difficulty breathing, difficulty seeing, convulsions, and collapse. Symptoms may be delayed. Decreased urine output, kidney failure, and nervous system damage may also occur. Aspiration may occur during swallowing or vomiting, resulting in lung damage.
- Repeated ingestion may cause kidney damage.
- Repeated overexposure may aggravate an existing kidney disease. It has irritating properties and repeated skin contact may aggravate an existing dermatitis (skin condition).
- ENVIRONMENT** : May not be toxic to aquatic species

#### 4. FIRST AID MEASURES

INHALATION	:	If irritation, headache, nausea or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or symptoms persist.
SKIN CONTACT	:	Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists
EYE CONTACT	:	Immediately flush eyes with plenty of water for at least 15minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention.
MEDICAL TREATMENT	:	Get immediate medical attention. If person is conscious and can swallow, immediately give two glasses of water (500 ml.) but do not induce vomiting. If vomiting occurs, give fluids again. Have physician determine if condition of person will permit induction of vomiting or evacuation of stomach. Do not give anything by mouth to an unconscious or convulsing person
OTHER RECOMMENDATIONS	:	Ethylene glycol poisoning may initially produce behaviour changes, drowsiness, vomiting, diarrhoea, thirst and convulsions. Renal damage or failure with metabolic acidosis are late signs of poisoning. Immediate treatment may reduce toxic effects, supplemented, if necessary with haemodialysis. Intravenous ethanol in sodium bicarbonate solution is a recognized antidote. Contact a poison centre for further treatment information.

#### 5. FIRE FIGHTING MEASURES

IGNITION TEMPERATURE DEGREE C	:	Not determined
FLASH POINT (COC) °C	:	115
FLAMMABLE LIMITS (%)	:	LOWER : Not known UPPER : Not known
FIRE EXTINGUISHING MEDIA	:	Use water fog, dry powder, foam or carbon dioxide. Water or foam may cause frothing. Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water fog to disperse the vapours and to provide protection for persons attempting to stop the leak

## SPECIAL EXPOSURE HAZARDS ARISING FROM THE SUBSTANCE OR PREPARATION ITSELF, COMBUSTION PRODUCTS, RESULTING GASES

None

## SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTING

It will depend upon the size of the fire, the degree of confinement of the fire and the natural ventilation available. Fire-resistant clothing and self-contained breathing apparatus is recommended for fires in confined spaces and poorly-ventilated areas. Full fireproof clothing is recommended for any large fires involving this product.

## 6. ACCIDENTAL RELEASE MEASURES

### PROCEDURES IN CASE OF ACCIDENTAL RELEASE OR LEAKAGE :

Ventilate area. Avoid breathing vapour. Use self-contained breathing apparatus or supplied air for large spills or confined areas. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes or clothing.

## 7. HANDLING AND STORAGE

Handling\_– Avoid of exposure to high temperatures and water contamination

Storage – Transport, handle and store in accordance with applicable local regulations and only in labeled containers designed for this product.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

RESPIRATORY SYSTEM	:	Airborne concentrations should be kept to lowest levels possible. If vapour, mist or dust is generated, use approved respirator as appropriate. Supplied air respiratory protection should be used for cleaning large spills or upon entry into tanks, vessels, or other confined spaces. See below for applicable permissible concentrations
SKIN	:	Protective clothing such as uniforms, coveralls or lab coats should be worn. Launder or dry-clean when soiled. Gloves and boots resistant to chemicals and petroleum distillates required.

EYE	:	Chemical type goggles or face shield recommended to prevent eye contact
EXPOSURE LIMIT FOR THE PRODUCT	:	Ethylene glycol; OSHA PEL-STEL 50 ppm; ACGIH TLV-STEL 50 ppm

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Clear liquid dyed green
Odour	:	Mild odour
Flash Point (PMCC) °C	:	115 min.
Relative density @ 20 °C	:	1.05 min.
Viscosity mm <sup>2</sup> /s @ 20 °C	:	37
pH Value	:	8.04
Solubility in water	:	100 %

## 10. STABILITY & REACTIVITY

CONDITIONS TO AVOID	:	Sources of ignition such as naked flames, sparks, hot surfaces
MATERIALS TO AVOID	:	Avoid contact with strong oxidising agents
HAZARDOUS DECOMPOSITION PRODUCTS	:	Oxides of carbon, aldehydes and ketones

## 11. TOXICOLOGICAL INFORMATION

### INHALATION

High concentrations of vapours or mist are likely to be irritating to the respiratory tract and may cause nausea, dizziness, headache and drowsiness.

#### SKIN CONTACT

Slightly irritating to the skin.

#### EYE CONTACT

Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.

#### INGESTION

Harmful. Causes headache, weakness, confusion, loss of coordination, dizziness, difficulty in walking, nausea, vomiting, decreased blood pressure, increased heart rate, pulmonary edema, kidney failure, unconsciousness, convulsions, and coma. Symptoms may be delayed. Severe poisoning may cause death.

Repeated ingestion may cause kidney damage. Repeated overexposure may aggravate an existing kidney disease. Based on animal data, it may cause adverse reproductive effects and birth defects.

### 12. ECOLOGICAL INFORMATION

#### MOBILITY

Not determined

#### BIODEGRADABILITY

According to EC criteria, it is likely to be readily biodegradable

#### BIOACCUMULATE

This product is estimated to have a low potential to bioconcentrate.

#### AQUATIC TOXICITY

Believed not to be toxic to aquatic species.

#### REMARKS

Releases of small quantities are unlikely to affect adversely the functioning of water treatment plants.

### 13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local laws and regulations governing disposal of chemicals.

### 14. TRANSPORT INFORMATION

UN NUMBER	:	Not available
HAZCHEM CODE	:	Not available
DANGEROUS GOODS CLASS	:	Not available
SPECIFIC PRECAUTIONARY TRANSPORT MEASURES AND CONDITIONS	:	Not available

### 15. REGULATORY INFORMATION

#### LABELING INFORMATION

#### RISK PHRASES

Harmful if swallowed  
Possible risk of harm to the unborn child

#### SAFETY PHRASES

S 2	Keep out of the reach of children
S 36 / 37	Wear suitable protective clothing and gloves.

### 16. OTHER INFORMATION

Refer to any national measures that may be relevant

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