



SAFETY DATA SHEET

Antifreeze

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME Antifreeze
 PRODUCT NO. 7860
 INTERNAL ID 10437
 APPLICATION Antifreeze liquid Corrosion inhibitor
 SUPPLIER Morris Lubricants
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 Shrewsbury
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2 HAZARDS IDENTIFICATION

Harmful if swallowed.

CLASSIFICATION Xn;R22.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
ETHANEDIOL	203-473-3	107-21-1	60-100%	Xn;R22

The Full Text for all R-Phrases are Displayed in Section 16

4 FIRST-AID MEASURES

GENERAL INFORMATION

Get medical attention if any discomfort continues.

INHALATION

Remove victim immediately from source of exposure. Place unconscious person on the side in the recovery position and ensure breathing. Get medical attention.

INGESTION

Do not induce vomiting. When risk of unconsciousness, place and transport the victim in secured side position. Immediately rinse mouth and drink plenty of water or milk. Keep person under observation. Do not induce vomiting. If vomiting occurs, keep head low. Transport immediately to hospital and take these instructions. Get medical attention immediately!

SKIN CONTACT

Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.

EYE CONTACT

Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention promptly if symptoms occur after washing.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Stop flow of material to fire. Fire can be extinguished using: Alcohol resistant foam. Carbon dioxide (CO₂). Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

SPECIAL FIRE FIGHTING PROCEDURES

Avoid breathing fire vapours. Use water to keep fire exposed containers cool and disperse vapours. Keep run-off water out of sewers and water sources. Dike for water control.

UNUSUAL FIRE & EXPLOSION HAZARDS

Heat from fire could result in drums bursting

SPECIFIC HAZARDS

By heating and fire, harmful vapours/gases may be formed.

Antifreeze

PROTECTIVE MEASURES IN FIRE

Use air-supplied respirator, gloves and protective goggles.

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

For personal protection, see section 8. In case of spills, beware of slippery floors and surfaces.

ENVIRONMENTAL PRECAUTIONS

Prevent entry into drains.

SPILL CLEAN UP METHODS

Stop leak if possible without risk. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Wear necessary protective equipment. Absorb in vermiculite, dry sand or earth and place into containers. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

Avoid spilling, skin and eye contact. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level.

STORAGE PRECAUTIONS

Store in tightly closed original container in a dry and cool place. Do not store near heat sources or expose to high temperatures.

STORAGE CLASS

Chemical storage.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	TWA - 8 hrs		STEL - 15 min		Notes
ETHANEDIOL	WEL		52 mg/m3(Sk)		104 mg/m3(Sk)	

WEL = Workplace Exposure Limit.

PROTECTIVE EQUIPMENT



PROCESS CONDITIONS

Use engineering controls to reduce air contamination to permissible exposure level.

ENGINEERING MEASURES

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined workplace exposure limit is not exceeded.

RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection must be used if the general level exceeds the Recommended Workplace Exposure Limit.

HAND PROTECTION

The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

EYE PROTECTION

If risk of splashing, wear safety goggles or face shield.

OTHER PROTECTION

Use barrier creams to prevent skin contact.

HYGIENE MEASURES

Wash promptly with soap & water if skin becomes contaminated. When using do not eat, drink or smoke.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Liquid Hygroscopic Viscous
COLOUR	Blue
ODOUR	Odourless
SOLUBILITY	Miscible with water. Miscible with Acetone Alcohol

Antifreeze

BOILING POINT (°C)	165 760 mm Hg	MELTING POINT (°C)	<-12
RELATIVE DENSITY	1.13 20	VAPOUR DENSITY (air=1)	2.14
VAPOUR PRESSURE	0.05 kPa 20	VISCOSITY	21 cps 20
FLASH POINT (°C)	111 PM Closed cup.	AUTO IGNITION TEMPERATURE (°C)	400
FLAMMABILITY LIMIT - LOWER(%)	3.2		

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions and recommended use.

CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition. Water, moisture.

MATERIALS TO AVOID

Strong oxidising substances. Strong acids. Flammable/combustible material.

HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

11 TOXICOLOGICAL INFORMATION

TOXIC DOSE 1 - LD 50 >5000 mg/kg (oral rat)

INGESTION

Harmful if swallowed.

SKIN CONTACT

May be absorbed through the skin. Skin irritation is not anticipated when used normally.

EYE CONTACT

May cause temporary eye irritation.

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Not regarded as dangerous for the environment.

LC 50, 96 Hrs, FISH mg/l 22810

EC 50, 48 Hrs, DAPHNIA, mg/l 41000

MOBILITY

The product is water soluble and may spread in water systems.

BIOACCUMULATION

The product is not bioaccumulating.

DEGRADABILITY

The product is expected to be biodegradable.

ACUTE FISH TOXICITY

Not considered toxic to fish.

13 DISPOSAL CONSIDERATIONS

GENERAL INFORMATION

Waste is classified as hazardous waste. When handling waste, consideration should be made to the safety precautions applying to handling of the product.

DISPOSAL METHODS

Do not allow runoff to sewer, waterway or ground. Dispose of waste and residues in accordance with local authority requirements.

14 TRANSPORT INFORMATION

GENERAL

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

ROAD TRANSPORT NOTES

Not Classified

RAIL TRANSPORT NOTES

Not Classified.

AIR TRANSPORT NOTES

Not Classified.

Antifreeze**15 REGULATORY INFORMATION**

LABELLING



Harmful

CONTAINS

ETHANEDIOL

RISK PHRASES

R22 Harmful if swallowed.

SAFETY PHRASES

S2 Keep out of the reach of children

S13 Keep away from food, drink and animal feeding stuffs.

S46 If swallowed, seek medical advice immediately and show this container or label.

S56 Dispose of this material and its container to hazardous or special waste collection point.

UK REGULATORY REFERENCES

Health and Safety at Work Act 1974.

EU DIRECTIVES

Dangerous Preparations Directive 1999/45/EC. Dangerous Substance Directive 67/548/EEC.

STATUTORY INSTRUMENTS

Chemicals (Hazard Information and Packaging) Regulations.

APPROVED CODE OF PRACTICE

Safety Data Sheets for Substances and Preparations.

GUIDANCE NOTES

Workplace Exposure Limits EH40.

16 OTHER INFORMATION

REVISION COMMENTS

NOTE: Lines within the margin indicate significant changes from the previous revision.

REVISION DATE 18/06/2009

REV. NO./REPL. SDS GENERATED 1

RISK PHRASES IN FULL

R22 Harmful if swallowed.

DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in a process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.