

Date Revised : 01-05-2012

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FOUR SEASONS 59009 & 59099 / 26600, 26601, 26602, 26603 NAPA 801650 &409500

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

Product Name	ZEROL ESTER 100
Supplier	Shrieve Products International Ltd, Suite 21, 70 Churchill Square, Kings Hill, West Malling, Kent ME19 4YU.
Contact Numbers	Tel. 1 800 367 4226
Emergency Telephone Number	NCEC: 1 800 367 4226

2. COMPOSITION / INFORMATION ON INGREDIENTS

Description	Polyol Esters.
Dangerous Components	None.

3. HAZARDS IDENTIFICATION

Human Health	No specific hazards.
Safety	No specific hazards.
Environmental	No specific hazards.

4. FIRST AID MEASURES

Inhalation	if adverse effects are observed, remove to fresh air. If rapid recovery does not occur, obtain medical attention.
Skin	Remove contaminated clothing. Wash skin with soap and water. If persistent discomfort occurs, obtain medical attention. Wash contaminated clothing.
Eye	Flush the eye immediately with water. If discomfort persists, obtain medical attention.
Ingestion	If swallowed, do not induce vomiting. Wash out the mouth with water and obtain medical attention.

5. FIRE FIGHTING MEASURES

Extinguishing Means	Carbon dioxide, dry chemical, or foam.
Fire Fighting Procedures	Do not enter any enclosed or confined fire space without proper protective equipment including self contained breathing apparatus. Water may cause splattering. Material will float on water. Water can be used to cool and protect exposed material.
Combustion Products	Toxic fumes, gases or vapours may evolve on burning.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid contact with skin, eyes and clothing.
Personal Protection	Wear protective clothing specified for normal operations (see section 8).
Environmental Protection	Prevent contamination of soil and water. Prevent from spreading or entering into drains or watercourses by using sand, earth, or other appropriate barriers.
Clean up methods - small spillage	Absorb or contain liquid with sand, earth, or spill control material. Shovel up and place in a labelled, sealable container for subsequent safe disposal.
Clean up methods - large spillage	Transfer to a salvage tank for recovery or safe disposal. Treat residues as for small spillages.

7. HANDLING AND STORAGE

Handling	Avoid prolonged or repeated contact with skin. Do not breathe vapour.
Storage	Keep container tightly closed in a cool, well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standards	None established.
Engineering Control Measures	Use with adequate ventilation.
Respiratory Protection	Not normally required.
Hand Protection	Neoprene rubber gloves.

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Eye Protection	Wear chemical monogoggles or full-face shield if splashes are likely to occur.
Body Protection	Standard issue work clothes, safety shoes or boots – chemical resistant.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Colourless
Odour	Mild ester
Boiling point initial	Not determined
Melting point	Not determined
Pour point	-40°C (typical)
Flash point	258°C (typical)
Relative Density	0.967 at 15°C (typical)
Solubility	Insoluble in water.
Viscosity at 40°C	97 mm ² /s (typical)

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions of use.
Conditions To Avoid	None known.
Materials To Avoid	Strong acids. Strong bases. Oxidising agents.
Hazardous Decomposition Products	Toxic fumes, gases or vapours may evolve on burning.

11. TOXICOLOGICAL INFORMATION

Basis For Assessment	Information given is based on the toxicology of closely related products.
Acute Toxicity - Oral	Expected to be of low toxicity. LD ₅₀ (oral, rat) : >5000 mg/kg

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Acute Toxicity - Dermal	Expected to be of low toxicity. LD ₅₀ (rat) : >2000 mg/kg
Acute Toxicity - Inhalation	Not Established
Eye Irritation	Not expected to be an eye irritant.
Skin Irritation	Not expected to be a skin irritant. Prolonged or repeated contact may cause dermatitis.
Skin Sensitisation	Not expected to be a skin sensitiser.

12. ECOLOGICAL INFORMATION

Basis For Assessment	Ecotoxicological data have not been determined specifically for this product. The information given below is based on knowledge of the components and the ecotoxicology of similar products.
Acute Toxicity - Fish	Expected to be not toxic at limit of water solubility.
Acute Toxicity - Invertebrates	Expected to be not toxic at limit of water solubility.
Acute toxicity - Algae	Expected to be not toxic at limit of water solubility.
Acute toxicity - Bacteria	Expected to be not toxic at limit of water solubility.
Mobility	Data not available.
Persistence/Degradability	Expected to be readily biodegradable.
Bioaccumulation	Data not available.

13. DISPOSAL CONSIDERATIONS

Precautions	Recover or recycle if possible. Otherwise: Dispose to licensed disposal contractor.
Product Disposal	Recover or recycle if possible. Otherwise: Incineration.
Container Disposal	Drain container thoroughly. Dispose to licensed disposal contractor.
Local Legislation	The recommendations given are considered appropriate for safe disposal. However, local regulations may be more stringent and these must be complied with.

14. TRANSPORT INFORMATION

Not Dangerous for Conveyance

15. REGULATORY INFORMATION

Classification - Labelling	Under the criteria of directive EEC/67/548 (dangerous substances) and EEC/88/379 (dangerous preparations):
EC Classification	None
EC Symbols	None
EC Risk Phrases	None
EC Safety Phrases	None
WGK Classification	WGK = 2

INTERNATIONAL REGISTRATION:

EC (EINECS)	Listed.
US (TSCA)	Listed.
Japan (MITI)	Listed.
Canada (DSL)	Listed.
Australia (AICS)	Listed.
Philippines (PICCS)	Listed.
Korea (ENCS)	Listed.

16. OTHER INFORMATION

Uses and Restrictions	Use as a lubricant for refrigeration and air conditioning compressors.
National Regulations	Reference should be made to national laws that implement the relevant regulatory provisions and any other national measures not covered in this data sheet.
SDS Distribution	The information in this document should be made available to all who may handle the product.
SDS Preparation	This Safety Data Sheet has been prepared in accordance with the requirements of the Data Sheet Directive 91/155/EEC and the amendments 93/112/EC and 2001/58/EC.

The information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the result of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.