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## Four Seasons Part Numbers 59883/801653 4-26-2005

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

<b>Product Name</b>	<b>ZEROL® PAG 150</b>
<b>Product Use</b>	Lubricant
<b>Supplier</b>	Shrieve Products International Ltd, Suite 21, 70 Churchill Square, Kings Hill, West Malling, Kent ME19 4YU, United Kingdom.
<b>Contact Numbers</b>	Tel. 1-800-367-4226 Tel. +44 (0) 1732 520600 Fax. +44 (0) 1732 520601
<b>Emergency Telephone Number</b>	NCEC: +44 (0) 1865 407333

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### 2. COMPOSITION / INFORMATION ON INGREDIENTS

<b>Chemical Characterisation</b>	Polyalkylene glycol. (Based on major component)
<b>Additional information</b>	All components are either EINECS listed or classified as polymers.

<b>Dangerous Components</b>	<b>Product Name</b>	<b>CAS No.</b>	<b>Conc. (m/m)</b>	<b>Classification</b>
	Oxirane, methyl-, polymer with oxirane, monobutyl ether.	9038-95-3	5 - 9%	Xn; R20

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### 3. HAZARDS IDENTIFICATION

<b>Hazard description</b>	Not classified as hazardous.
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### 4. FIRST AID MEASURES

<b>General information</b>	Immediately remove any clothing soiled by the product.
<b>After Inhalation</b>	Remove from exposure. Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
<b>After skin contact</b>	Immediately wash with water and soap and rinse thoroughly.
<b>After eye contact</b>	Rinse opened eye for several minutes under running water. Then consult a doctor.

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<b>After swallowing</b>	Wash out the mouth with water. Never administer anything by mouth if a casualty is losing consciousness, is unconscious or is convulsing. Do not induce vomiting; call for medical help immediately.
<b>Information for doctor</b>	Treat symptomatically.

## **5. FIRE FIGHTING MEASURES**

<b>Suitable Extinguishing Means</b>	Water spray, alcohol resistant foam, fire-extinguishing powder, carbon dioxide.
<b>Unsuitable extinguishing media</b>	Water with full jet.
<b>Special hazards caused by the substance, its products of combustion or resulting gases</b>	Formation of toxic gases is possible during heating or in the case of fire.
<b>Protective equipment</b>	Wear self-contained breathing apparatus.
<b>Additional information</b>	Keep containers and surroundings cool with water spray.

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## **6. ACCIDENTAL RELEASE MEASURES**

<b>Personal Precautions</b>	Wear protective clothing.
<b>Environmental Protection</b>	Do not allow product to reach sewage system or any watercourse. Inform authorities in case of seepage into watercourse or sewage system.
<b>Measures for cleaning/collecting</b>	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Send for recovery or disposal in suitable containers.
<b>Additional Information</b>	See Section 8 for information on personal protection equipment.

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## **7. HANDLING AND STORAGE**

<b>Handling</b>	Store in cool, dry place in tightly closed containers. Use only in well ventilated areas. Avoid breathing mist or vapour from heated material. Local exhaust ventilation should be provided if there is risk of mist or aerosol formation.
<b>Information about fire and explosion protection</b>	The product is not flammable.
<b>Storage Requirements to be met by storerooms and receptacles</b>	Suitable storage materials are: mild steel. Stainless steel.
<b>Information about storage in one common storage facility</b>	Store away from oxidising agents. Store away from reducing agents.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Ingredients with limit values that require monitoring at the workplace</b>	The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
<b>Personal protective equipment: General protective and hygienic measures</b>	Do not inhale gases/fumes/aerosols. Avoid contact with eyes and skin.
<b>Respiratory Protection</b>	Respiratory protection if there is a risk of breathing mists or vapours from heated material. Respiratory protection if there is risk of uncontrolled exposure to aerosols.
<b>Recommended filter device for short term use</b>	Combination filter A-P3
<b>Protection of hands – material of gloves</b>	PVC gloves - recommended material thickness: $\geq 1.1$ mm. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
<b>Eye Protection</b>	Chemical goggles must be worn during all handling operations.
<b>Body Protection</b>	Protective work clothing.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### General Information

<b>Form</b>	Liquid
<b>Colour</b>	Yellow
<b>Odour</b>	Characteristic
<b>Change in condition</b>	
<b>Boiling point/Boiling range</b>	Decomposes before boiling
<b>Pour Point</b>	$< -35^{\circ}\text{C}$
<b>Flash point (COC)</b>	$> 250^{\circ}\text{C}$ (ASTM D6450)
<b>Ignition temperature</b>	$> 370^{\circ}\text{C}$
<b>Self-igniting</b>	Product is not self-igniting.
<b>Danger of explosion</b>	Product does not present an explosion hazard.
<b>Vapour Pressure</b>	Negligible vapour pressure at ambient conditions
<b>Density at <math>20^{\circ}\text{C}</math></b>	$1.051\text{ g/cm}^3$ (typical)

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<b>Solubility in / Miscibility with water</b>	Partially soluble
<b>Viscosity Kinematic at 40 °C</b>	150 mm <sup>2</sup> /s (typical)

## **10. STABILITY AND REACTIVITY**

<b>Thermal decomposition / conditions to be avoided</b>	Stable under normal conditions. Can decompose slowly with localised heating above 150 °C.
<b>Dangerous reactions</b>	Reacts with strong acids and oxidising agents. Toxic fumes may be released if heated above the decomposition point.
<b>Dangerous Decomposition Products</b>	Carbon monoxide and carbon dioxide. Aldehyde.

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## **11. TOXICOLOGICAL INFORMATION**

<b>Acute Toxicity</b>	Based on major component.
<b>LD/LC values relevant for classification</b>	Oral LD <sub>50</sub> (rat) : >5000 mg/kg Dermal LD <sub>50</sub> (rabbit) : >5000 mg/kg
<b>Primary irritant effect</b>	
<b>On the skin</b>	Repeated or prolonged contact may produce defatting of the skin leading to irritation and dermatitis.
<b>On the eye</b>	May cause slight transient irritation.
<b>Sensitisation</b>	No sensitising effects known.
<b>Additional toxicological information</b>	Swallowing may have the following effects: Irritation of mouth, throat and respiratory tract. Vomiting. Diarrhoea. Exposure to vapour at high concentrations may have the following effects: irritation of nose, throat and respiratory tract. Low volatility makes acute effects unlikely at ambient temperatures. Repeated exposure to aerosols may result in lung damage.



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## 12. ECOLOGICAL INFORMATION

### Behaviour in environmental systems

#### Mobility and bioaccumulation potential

Product is not expected to bioaccumulate.

#### Other information

BOD20 =< 5% ThOD.

#### Ecotoxicological effects Aquatic toxicity

The product is rated as non-hazardous to aquatic species (based on major component).

#### General Notes

Water hazard class 1 (German Regulations): slightly hazardous for water.  
Do not allow product to reach ground water, watercourse or sewage system.

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## 13. DISPOSAL CONSIDERATIONS

### Product Recommendation

Dispose of in accordance with all applicable local and national regulations. Incineration is the recommended method of disposal. Must not be disposed together with household rubbish. Do not allow product to reach sewage system.

### Uncleaned packaging Recommendation

Labels should not be removed from containers until they have been cleaned. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Disposal must be in accordance with local regulations.

### Recommended cleansing agents

Water – with cleansing agents if required.

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## 14. TRANSPORT INFORMATION

### Transport/Additional information

Not classified as dangerous for transport.

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## 15. REGULATORY INFORMATION

### Labelling according to EU guidelines

The product is not subject to classification according to the calculation methods of the "General Classification Guideline for Preparations of the EU" as issued in the latest valid version.

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**National Regulations:** All components listed

USA – TSCA  
Australia – AICS  
Canada – DSL  
Korea  
Philippines – PICCS  
China

## **16. OTHER INFORMATION**

**Relevant R-phrases** R 20 Harmful by inhalation.

**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 date 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 their own determination of the suitability of the material for their particular purpose.