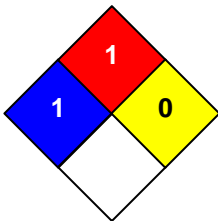


# ZERFLO 68

SECTION 1:	PRODUCT AND COMPANY IDENTIFICATION													
Product Name	ZERFLO 68													
Manufacturer	PETRON CORPORATION JESUS ST., PANDACAN, MANILA PHILIPPINES													
Chemical Family	Petroleum Hydrocarbons with Additives													
Product Type	Refrigeration Oil													
Emergency Phone No.	(632) 563-3121													
NFPA Hazard Identification		<table> <thead> <tr> <th>Hazard</th> <th>Degree of Hazard</th> </tr> </thead> <tbody> <tr> <td>Blue - Health</td> <td>0 - Least</td> </tr> <tr> <td>Red - Flammability</td> <td>1 - Slight</td> </tr> <tr> <td>Yellow - Reactivity</td> <td>2 - Moderate</td> </tr> <tr> <td>White - Special</td> <td>3 - High</td> </tr> <tr> <td></td> <td>4 - Extreme</td> </tr> </tbody> </table>	Hazard	Degree of Hazard	Blue - Health	0 - Least	Red - Flammability	1 - Slight	Yellow - Reactivity	2 - Moderate	White - Special	3 - High		4 - Extreme
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	4 - Extreme													
SECTION 2:	COMPOSITION / INFORMATION ON INGREDIENTS													
Hazardous Ingredients	<p>The composition of this product is proprietary information. In general, the product does not contain any component that may be a significant health and safety hazard as long as normal precautions in handling petroleum products are observed and good standards of industrial and personal hygiene are maintained. However, in the event of a medical emergency, compositional information will be provided to the attending physician or nurse if necessary.</p>													
SECTION 3:	HAZARDS IDENTIFICATION													
Primary Entry Routes	Eye contact, skin contact or absorption, inhalation of vapors													
Target Organs	Eyes, skin, respiratory system													
Eye Contact	Slightly irritating on direct contact													
Skin Contact	Low order of toxicity. However, like other petroleum-based products, prolonged or repeated contact may result in the defatting of skin, leading to irritation and possibly dermatitis.													
Inhalation	Negligible hazard at ambient temperature (-18 to 38 °C; 0 to 100 °F). However, if this product is overheated, especially in the presence of water, hydrogen sulfide may be released; this can cause respiratory													



collapse, coma and death without necessarily any warning odor being sensed. Furthermore, overexposure to oil mists may result in droplet deposition, oil granuloma formation, inflammation and increased incidence of infection.

Ingestion	Minimal toxicity
Workplace Exposure Limits	Due to oil-based components of the product, exposure to oil mist or vapors should be controlled to 5 mg/m <sup>3</sup> or less.

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**SECTION 4: FIRST AID MEASURES**


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Eye Contact	Immediately flush eyes with large amount of water for at least 15 minutes or until irritation subsides. If irritation persists, get prompt medical attention.
Skin Contact	Immediately flush with large amount of water; use soap if available. Remove contaminated clothing, including shoes, and launder before reuse.
Inhalation	This product has a low vapor pressure and is not expected to present an inhalation problem at ambient temperature. However, if overexposed to oil mist, using proper respiratory protection, immediately remove the affected person immediately to fresh air. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.
Ingestion	If swallowed, DO NOT induce vomiting. If individual is conscious, give milk or water to dilute stomach contents. Keep warm and quiet. Get immediate medical attention. DO NOT attempt to give anything by mouth to an unconscious person.

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**SECTION 5: FIRE FIGHTING MEASURES**


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Flash Point, COC, °C	166
Extinguishing Media	In case of fire use foam, carbon dioxide or dry chemical extinguishers.
Special Fire-fighting Procedures	Water jets should not be used directly on igniting products. Avoid spraying water directly into storage containers due to danger of boil-over. However, water may be used to cool exposed containers, structures and equipment adjacent to fire. Respiratory and eye protection required for fire-fighting personnel.
Decomposition Products Under Fire Conditions	Fumes, smoke, oxides of sulfur, nitrogen, carbon and other toxic gases may be formed.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**


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Land Spill	Taking normal safety precaution, eliminate sources of ignition. Prevent additional discharge of material, if possible to do so without hazard. For small spills, implement cleanup procedures. For large spills, implement clean-up procedures and, if in public area, keep public away and advise authorities. Prevent liquid from entering sewers, water courses, or low
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areas. Contain spilled liquid with sand or earth. Recover by pumping or with a suitable absorbent. If liquid is too viscous for pumping, scrape up. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

#### Water Spill

Use booms to confine spills immediately. Remove from water surface by skimming or with suitable adsorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in non-confined waters. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

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### SECTION 7:

### HANDLING AND STORAGE

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#### Handling Procedures

Keep away from potential sources of ignition. Open container in a well-ventilated area. Avoid breathing vapors. Keep containers closed when not in use. Wash thoroughly after handling. "Empty" containers and retain product residue (liquid or vapor) can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat, flame, sparks, static electricity or other sources of ignition; they may explode and cause death or injury. Empty drums should be completely drained, properly bunged and promptly returned to a drum re-conditioner, or properly disposed of.

#### Storage Procedures

Do not store near potential sources of ignition. Store in well-ventilated area. Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 60 °C for extended periods of time or if heat sources in excess of 70 °C are used.

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### SECTION 8:

### EXPOSURE CONTROLS/PERSONAL PROTECTION

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#### Ventilation Procedures

The use of local exhaust ventilation is recommended to control mists or vapors. Additional ventilation or exhaust may be required to maintain air concentrations below exposure limits.

#### Gloves Protection

Use chemical resistant gloves.

#### Eye Protection

Where contact may occur, wear safety glasses with side shields.

#### Respiratory Protection

Use NIOSH/MSHA approved full-face respirator with a combination organic vapor and high efficiency filter cartridge if the recommended exposure limit is exceeded. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.

#### Clothing Recommendation

Wear either a chemical protective suit or apron when potential for contact with material exists. Use neoprene or nitrile rubber boots when necessary to avoid contaminating shoes. Do not wear rings, watches or similar apparel that could entrap the material and cause a skin reaction.



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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**


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Specific Gravity at 15.6°C	0.8968
Water Solubility	Insoluble
Odor	Characteristic of petroleum products
Appearance	Clear
Viscosity at 40 °C, cSt	66.9
Viscosity at 100 °C, cSt	7.98

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**SECTION 10: STABILITY AND REACTIVITY**


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Stability	This product is stable and hazardous polymerization will not occur. However, the product should not be heated above 70 °C to avoid possible release of highly toxic hydrogen sulfide and odorous alkyl mercaptans.
Incompatibility	Strong oxidizing agents
Polymerization	Not Applicable
Hazardous Decomposition Products	Hydrogen Sulfide (toxic)

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**SECTION 11: TOXICOLOGICAL INFORMATION**


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**Acute:**

Inhalation	Negligible hazard under ambient temperature conditions (-18 to 38°C; 0 to 100 °F). If overheated especially in the presence of water, hydrogen sulfide may be released. This can cause respiratory collapse, coma, even death without necessarily any odor being sensed. Avoid breathing vapor or mists. Repeated and prolonged over-exposure to oil mists may result in droplet deposition, oil granuloma formation, inflammation and increased incidence of infection.
Skin Contact	Low order of toxicity. Frequent or prolonged contact may cause mild skin discomfort.
Eye Contact	Will cause eye discomfort; may injure eye tissue if not removed promptly.
Ingestion	Minimal toxicity

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**SECTION 12: ECOLOGICAL INFORMATION**


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Environmental Mobility	Oil component of this product floats and can migrate from water to land.
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**Environmental Degradability** Data have not been determined specifically for this product, but it is not expected that it will be "readily" biodegradable.

**Ecotoxicity & Bioaccumulation** Data have not been determined specifically for this product, but it is expected to be harmful to aquatic organisms.

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**SECTION 13: DISPOSAL CONSIDERATIONS**

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**Waste Disposal** Material, if discarded, is expected to be hazardous waste due to toxicity. Waste management should be in compliance with local and national regulations.

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**SECTION 14: TRANSPORT INFORMATION**

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**Land** This product is not regulated for road/rail transport.

**Sea** IMDG (Packaged Goods and BLCs). This product is not regulated for sea transport.

**Air** (ICAO/IATA). This product is not regulated for air transport.

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**SECTION 15: REGULATORY INFORMATION**

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The chemical substances present in this product are included in, or exempted from the PICCS inventories.

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**SECTION 16: OTHER INFORMATION**

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**Approvals** Technical Department  
Petron Corporation

This is a computer-generated form and does not require a signature.

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