

HYDROTUR R

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

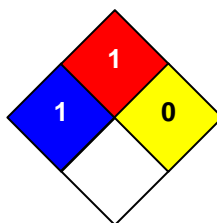
Product Name: HYDROTUR R

Manufacturer: PETRON CORPORATION
JESUS ST., PANDACAN, MANILA
PHILIPPINES

Chemical Family: Petroleum Hydrocarbons with Additives

Product Type: Circulating Oil

Emergency Phone No.: (632) 563-3121

NFPA Hazard Identification


Hazard	Degree of Hazard
Blue - Health	0 - Least
Red - Flammability	1 - Slight
Yellow - Reactivity	2 - Moderate
White - Special	3 - High
	4 - Extreme

SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients

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.

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/m³ or less.

SECTION 4:**FIRST AID MEASURES**

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.

SECTION 5:**FIRE FIGHTING MEASURES**

Flash Point, COC, °C

210 (Hydrotur R 32)
218 (Hydrotur R 46)
230 (Hydrotur R 68)
254 (Hydrotur R 100)
254 (Hydrotur R 125)
260 (Hydrotur R 150)
268 (Hydrotur R 185)
272 (Hydrotur R 220)
280 (Hydrotur R 320)
290 (Hydrotur R 400)

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 over-boil. 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.



SECTION 6: ACCIDENTAL RELEASE MEASURES

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 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.

SECTION 7: HANDLING AND STORAGE

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.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Gravity at 15.6°C
 0.8705 (Hydrotur R 32)
 0.8686 (Hydrotur R 46)
 0.8735 (Hydrotur R 68)
 0.8883 (Hydrotur R 100)
 0.8911 (Hydrotur R 125)
 0.8951 (Hydrotur R 150)
 0.8974 (Hydrotur R 185)
 0.8985 (Hydrotur R 220)
 0.9024 (Hydrotur R 320)
 0.9042 (Hydrotur R 400)

Water Solubility Insoluble

Odor Characteristic of petroleum products

Appearance Clear

Viscosity at 40 °C, cSt
 31.10 (Hydrotur R 32)
 45.00 (Hydrotur R 46)
 65.20 (Hydrotur R 68)
 105.0 (Hydrotur R 100)
 125.0 (Hydrotur R 125)
 149.0 (Hydrotur R 150)
 187.0 (Hydrotur R 185)
 220.0 (Hydrotur R 220)
 320.0 (Hydrotur R 320)
 407.0 (Hydrotur R 400)

Viscosity at 100 °C, cSt
 5.40 (Hydrotur R 32)
 6.82 (Hydrotur R 46)
 8.61 (Hydrotur R 68)
 11.51 (Hydrotur R 100)
 12.90 (Hydrotur R 125)
 14.50 (Hydrotur R 150)
 16.80 (Hydrotur R 185)
 18.80 (Hydrotur R 220)
 23.96 (Hydrotur R 320)
 27.80 (Hydrotur R 400)

SECTION 10: STABILITY AND REACTIVITY

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)

SECTION 11: TOXICOLOGICAL INFORMATION

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

SECTION 12: ECOLOGICAL INFORMATION

Environmental Mobility	Oil component of this product floats and can migrate from water to land.
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.

SECTION 13: DISPOSAL CONSIDERATIONS

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

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.



SECTION 15: REGULATORY INFORMATION

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

SECTION 16: OTHER INFORMATION

Approvals Technical Department
 Petron Corporation

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

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