

MATERIAL SAFETY DATA SHEET

TURBINE OILS

1. PRODUCT & COMPANY IDENTIFICATION:

Product Name: QATOL GST OIL (32,46,68,100)

Use of the substance/ mixture: turbine oil. For specific application advice see appropriate Technical Data Sheet or consult our company representative.

Company Identification:

QATOL INDUSTRIES

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2. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/mixture: Mixture

Highly refined base oil (IP 346 DMSO extract < 3%). Proprietary performance additives

Ingredients:

| Product/ingredient name | CAS no. | Classification | Concentration (%) |
|--|-------------|--------------------------------|-------------------|
| Highly refined mineral oil (C15 - C50) | Mixture | Asp. Tox. 1 (H304) (EUH066) | 70 - 99 %weight |
| Additives | PROPRIETARY | *** | <1 |

3. HAZARDS IDENTIFICATION

NON-HAZARDOUS SUBSTANCE.

NON-DANGEROUS GOODS

| NFPA 704 Hazard Class: | HMIS Hazard Class: |
|--------------------------|--------------------------|
| Health: 1 (Minor) | Health: 1 (Minor) |
| Flammability: 1 (Slight) | Flammability: 1 (Slight) |
| Instability: 0 (Least) | Instability: 0 (Least) |

4. FIRST AID MEASURES

Skin: First aid is normally required. Immediately remove all soiled or stained clothing. Wash the affected area immediately and repeatedly with soap and water.

Eye: Keep eyes open and rinse immediately and repeatedly with water for at least 15 minutes.

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Inhalation (Breathing): First aid is normally required. Inhalation of heavy concentrations of vapors, fumes or spray, may cause mild irritation of the throat. If breathing difficulties develop, move victim away from source of exposure and into fresh air, keep warm and allow to rest. Seek immediate medical attention.

Ingestion (Swallowing): First aid is normally required. Possible risk of vomiting and diarrhea. Do not induce vomiting to avoid the risk of aspiration into the respiratory tract. Give nothing to drink. However, if swallowed and symptoms develop, seek medical attention.

aspiration: If the product is believed to have entered the lungs (in case of vomiting, for example), take the person to hospital for immediate care.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Dry chemical, carbon dioxide, foam, or water spray is recommended. Water or foam may cause frothing of materials heated above 212°F. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Fire Fighting Instructions: For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self-contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant.

Isolate immediate hazard area, keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

6. ACCIDENTAL RELEASE MEASURES

This material may burn, but will not ignite readily. Keep all sources of ignition away from spill/release. Stay upwind and away from spill/release. Notify persons downwind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant.

Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Dike far ahead of spill for later recovery or disposal. Spilled material may be absorbed into an appropriate absorbent material.

Notify fire authorities and appropriate federal, state, and local agencies. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines.

7. HANDLING AND STORAGE

Handling: "Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death.

"Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioned. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

Storage: Keep container(s) tightly closed. Use and store this material in cool, dry, well-ventilated areas away from heat and all sources of ignition. Store only in approved containers. Keep away from any incompatible material. Protect container(s) against physical damage.

Ventilation: Normal ventilation is adequate.

8. EXPOSURE CONTROL/ PERSONAL PROTECTION

Engineering Measures: If current ventilation practices are not adequate to maintain air-borne concentrations below the established exposure limits (see Section 2), additional engineering controls may be required.

Personal Protection Equipment:

Respiratory- A NIOSH certified air purifying respirator with a Type 95 (R or P) particulate filter may be used under Protection provided by air purifying respirators is limited. Use a NIOSH approved self-contained breathing apparatus (SCBA) or equivalent operated in a pressure demand or other positive pressure mode if there is potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection

Skin: The use of gloves impervious to the specific material handled is advised to prevent skin contact and possible irritation (see manufacturers literature for information on permeability). Examples of approved materials are nitrile and neoprene.

Eye/Face: While contact with this material is not expected to cause irritation, the use of approved eye protection to safeguard against potential eye contact is considered good practice.

Other Protective Equipment: A source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color: Colorless to yellow

Odor: Petroleum (Hydro carbon) odor

Boiling Point/ Range: >300 deg C

Pour Point: < -6 deg C

Decomposition: None

Kinematic Viscosity: 28.80 mm²/s - 100 mm²/s @ 40°C (104°F)

Water Solubility: Insoluble

Density at 15 deg C: (0.8500 – 0.8800) g/ml

Evaporation Rate: N/A

Sediment: (0) %

Flash Point (PMCC): >190 deg C

10. STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Incompatibility with Other Materials: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Hazardous Decomposition Products: none

Hazardous Polymerization: Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydro treating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

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These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as:

Confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

During use in engines, contamination of oil with low levels of cancer-causing combustion products occurs.

Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water.

12. ECOLOGICAL INFORMATION

ECOTOXICITY

This material is not expected to be harmful to aquatic organisms.

ENVIRONMENTAL FATE

This material is not expected to be readily biodegradable.

13. DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a

manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

14. TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate

Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode specific or quantity-specific shipping requirements.

DOT Shipping Description: PETROLEUM LUBRICATING OIL, NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

Additional Information:

NOT HAZARDOUS BY U.S. DOT. ADR/RID HAZARD CLASS NOT APPLICABLE.

IMO/IMDG Shipping Description: PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

ICAO/IATA Shipping Description: PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

15. REGULATORY INFORMATION

EPCRA 311/312 CATEGORIES:

1. Immediate (Acute) Health Effects: YES

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- 2. Delayed (Chronic) Health Effects: YES
- 3. Fire Hazard: YES
- 4. Sudden Release of Pressure Hazard: NO
- 5. Reactivity Hazard: NO

16. OTHER INFORMATION

Revision No ; Rev-00

Risk Phases in Full: Not classified

REGULATORY LISTS SEARCHED:

01-1 =IARC Group 103=EPCRA 313 07=PA RTK

01-2A =IARC Group 2A 04=CA Proposition 65

01-2B =IARC Group 2B 05=MA RTK

02 =NTP Carcinogen 06=NJ RTK

No components of this material were found on the regulatory lists above.

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value

TWA - Time Weighted Average

STEL - Short-term Exposure Limit

PEL - Permissible Exposure Limit

CAS - Chemical Abstract Service Number

ACGIH - American Conference of Government Industrial Hygienists

IMO/IMDG - International Maritime Dangerous Goods

Code

API - American Petroleum Institute

MSDS - Material Safety Data Sheet

NFPA - National Fire Protection Association (USA)

DOT - Department of Transportation (USA)

NTP - National Toxicology Program (USA)

IARC - International Agency for Research on Cancer

OSHA - Occupational Safety and Health Administration.

The Information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and is not valid for such material used in combination with any other material or in any process, unless specified in the text.