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MATERIAL SAFETY DATA SHEET

PRODUCT TRADE NAME: Steward R&O Turbine Oil ISO 32

PREPARATION/REVISION DATE: 12/22/10
REVISED FROM (DATE): 03/26/09

EMERGENCY PHONE #: (920)-734-4146

NFPA CODE:	Health: 1	Fire:	1	Reactivity:	1
HMIS CODE:	Health: 1	Fire:	1	Reactivity:	1

SECTION 1 - HAZARDOUS INGREDIENTS

This material is not known to contain greater than 0.1% of any carcinogen required to be listed under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Component	Cas #	OSHA PEL	ACGIH TLV
Distillate solvent dewaxed oils	64742-65-0	5 mg/m^3	5 mg/m^3
Butylated phenol	N.E.	N. E.	N. E.
Substituted triazole	N.E.	N. E.	N. E.
Diphenylamine	122-39-4	10 mg/m^3	10 mg/m^3

SECTION 2 - FIRE AND EXPLOSION HAZARDS

FLASH POINT: 396°F
UPPER FLAMMABLE LIMIT: 10% (Estimated value)
LOWER FLAMMABLE LIMIT: 1% (Estimated value)
EXTINGUISHING MEDIA:

CO_2, dry chemical, foam, water spray, water fog

SPECIAL FIRE FIGHTING PROCEDURES:

Wear self contained breathing apparatus with full face piece. Cool exposed containers with water spray. Avoid breathing fumes.

UNUSUAL FIRE & EXPLOSION HAZARDS:

Toxic fumes may be evolved on burning or exposure to heat. Pressure may increase in overheated closed containers. Store below 120°F.

SECTION 3 - HEALTH HAZARD DATA

« ACUTE EXPOSURE »

ORAL TOXICITY: The LD50 in rats is > 5000 mg/kg. Based on data from components or similar materials.

EYE IRRITATION: Material can cause slight eye irritation. Based on data from components or similar material.

SKIN IRRITATION: Material can cause slight skin irritation. Based on data from components or similar materials. Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

DERMAL TOXICITY: The LD50 in rabbits is > 2000 mg/kg. Based on data from components or similar materials.

INHALATION TOXICITY: No data available to indicate product or components may be a toxic inhalation hazard.

RESPIRATORY IRRITATION: If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract similar to that observed with mineral oil. Based on data from components or similar materials. Under good industrial hygiene practices where all exposure limits are observed respiratory irritation should not be a problem.

DERMAL SENSITIZATION: No data available to indicate product or components may be a skin sensitizer.

INHALATION SENSITIZATION: No data available to indicate product or components may be a respiratory sensitizer.

« CHRONIC EXPOSURE »

CHRONIC TOXICITY: No data available to indicate product or components present at greater than 1% are chronic health hazards.

CARCINOGENICITY: No data available to indicate any components present at greater than 0.1% may present a carcinogenic hazard. This product is formulated with mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC.

MUTAGENICITY: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

REPRODUCTIVE TOXICITY: No data available to indicate either product or components present at greater than 0.1% that may cause reproductive toxicity.

TERATOGENICITY: No data available to indicate either product or components contained at greater than 0.1% may cause birth defects. There are conflicting reports in the literature

concerning the teratogenicity of diphenylamine. However, because the predominant route of exposure was oral (via gavage or diet) and relatively high dose levels were administered in the studies where positive effects were observed, it would not seem to present a workplace hazard.

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« ADDITIONAL INFORMATION »

OTHER: No other health hazards known.

EXPOSURE LIMITS: See Hazardous Ingredients Section for any applicable exposure limits for components.

SECTION 3A - EMERGENCY FIRST AID PROCEDURES

SKIN: Wash with soap and water. Get medical attention if irritation develops. Launder contaminated clothing before reuse.

EYE: Flush with water at least 15 minutes. Get medical attention if eye irritation develops or persists.

INHALATION: Remove exposed person to fresh air if adverse effects are observed.

ORAL: DO NOT INDUCE VOMITING! If conscious, give 2 glasses of water. Get immediate medical attention.

ADDITIONAL: Note to physician: treat symptomatically.

SECTION 4 - SPECIAL PROTECTION INFORMATION

VENTILATION PROCEDURE: Use local exhaust ventilation to control dust.

GLOVE PROTECTION: Neoprene or Nitrile Gloves Recommended.

EYE PROTECTION: Safety glasses recommended.

RESPIRATORY PROTECTION: Normally not required, mask or respirator for mists.

CLOTHING RECOMMENDATION: Launder as needed to prevent repeated or prolonged contact.

SECTION 5 - PHYSICAL DATA

VAPOR PRESSURE:	Less than 0.01 mm Hg @ 20°C
PH:	Essentially Neutral
SPECIFIC GRAVITY:	0.8
LB/GAL:	7.2
API GRAVITY:	31.6
WATER SOLUBILITY:	Insoluble
PERCENT VOLATILE:	Negligible from open container in 4 hours @ 38°C (100°F)
VAPOR DENSITY:	Greater than 1 (Air = 1)
EVAPORATION RATE:	Less than 0.01 (@1 ATM and 25°C. n-butyl acetate = 1)
ODOR:	Mild Petroleum oil like
APPEARANCE:	Amber Viscous Liquid
VISCOSITY:	30 - 34 cSt @ 40°C 5.2 ref. cSt. @ 100°C

SECTION 6 - STABILITY

STABILITY:	Stable
INCOMPATIBILITY:	Oxidizing agents and acids.
POLYMERIZATION:	Will not occur.
THERMAL DECOMPOSITION:	Oxides of carbon and nitrogen. May yield methacrylate monomers.

SECTION 7 - SPILL OR LEAK PROCEDURES

SPILL PROCEDURES:	Prevent entry into sewers and waterways. Pick up free liquid for recycle or disposal. Absorb small amounts with an inert material.
WASTE DISPOSAL:	If disposed of, this material is believed to be non-hazardous per Wisconsin DNR. Disposal should be in compliance with Federal, State, and Local laws.

SECTION 8 - SPECIAL PRECAUTIONS

SPECIAL PRECAUTIONS:	Keep containers closed when not in use. Do not handle or store near high heat or flames. Avoid breathing oil mists, wash skin thoroughly with soap and water after handling.

SECTION 9 - TRANSPORTATION AND OSHA LABELING INFORMATION

TRANSPORTATION INCIDENT INFORMATION: For further information relative to spills resulting from transportation incidents, refer to latest Department of Transportation Emergency Response Guidebook for Hazardous Materials Incidents.

U.S. DOT HAZARDOUS MATERIALS SHIPPING DESCRIPTION: Not Regulated.

OSHA REQUIRED LABEL INFORMATION: In compliance with hazard and right-to-know requirements, where applicable OSHA Hazard Warnings may be found on the label, bill of lading or invoice accompanying this shipment.

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of seller's knowledge, however, seller makes no warranty whatsoever, expressed, implied or of merchantability regarding the accuracy of such data or the results to be obtained from the use thereof, seller assumes no responsibility for injury to buyer or to third persons or for any damage to any property and buyer assumes all such risks.

N.A. = Not Applicable N.D. = Not Determined N.E. = Not Established