

TEK BIO HYDRAULIC ISO 32, 46, 68

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Use: Bio Hydraulic Oil

Product Number(s): TEK20064,

Synonyms: TEK Hydraulic ISO 32, 46, 68

Company Identification : PORT CONSOLIDATED INC.
 11550 NW 36 AVE
 MIAMI FL 33167-2909
 USA
www.portconsolidated.com

Emergency Phone: (954) 763-3390

Product Information: email : Info@tekstarlubricants.com
 Web: www.tekstarlubricants.com
 Product Information: (800) 683-5823
 MSDS Requests: (800) 683-5823

SECTION 2 : HAZARDS IDENTIFICATION

This material is not considered hazardous under OSHA criteria.

Hazard Ratings	NFPA	(US)	WHMIS	(Can.)
HEALTH:		<u>0</u>	HEALTH:	<u>0</u>
FLAMMABILITY:		<u>1</u>	FLAMMABILITY:	<u>1</u>
REACTIVITY:		<u>0</u>	REACTIVITY:	<u>0</u>
PERSONAL PROTECTION:		<u>C</u>	PERSONAL PROTECTION:	<u>C</u>

NFPA Health	0 = No usual hazard	1 = May be irritating	2 = may be harmful if inhaled or absorbed	3 = corrosive or toxic. Avoid skin contact or inhalation	4 = May be fatal on short exposure. Specialized protective equipment required
NFAP Flammability	0 = Not Combustible	1 = Combustible if heated	2 = Combustible liquid flash point of 100 to 200 deg F	3 = Flammable liquid flash point below 100 deg F	4 = Flammable gas or extremely flammable liquid
NFPA Reactivity	0 = Not reactive when mixed with water	1 = May react if heated or mixed with water but not violently	2 = Unstable or may react if mixed with water	3 = May be explosive if shocked, heated under confinement or mixed with water	4 = Explosive material at room temperature
Recommended Personal Protection	A = Goggles	B = Goggles + Gloves	C = Face Shield, Gloves, Apron	D = Special, See section VII of this sheet	XXXXXXXXXXXXX

(*) Petroleum base oils are classified as hazardous according to OSHA 1910.1200 because a Permissible Exposure Limit (PEL) has been determined for MINERAL OIL MIST (only). Under conditions of normal use, misting is

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not expected to occur. (Refer to the Health Hazards Section of this MSDS for further information and to the Regulatory Information Section for other federal and state regulatory information.)

Appearance: Clear-Yellow (ASTM D-1500) 0.5-2.0

Physical form: Liquid

Odor: Mild Hydrocarbon

OSHA Regulatory Status

This material is not considered hazardous by the OSHA Communication Standard (29 CFR 1910.1200)

Potential Health Effects

Eye: Contact may cause irritation, watering and redness.

Skin: Contact may cause mild irritation, redness and a burning sensation. Prolonged or repeated contact can dry or cracking of skin which may lead to dermatitis. No harmful effects are expected.

Inhalation: Studies show a low degree of toxicity by inhalation. Inhalation of oil mist or vapors at elevated temperatures may cause respiratory irritation.

SECTION 3 : COMPOSITION / INFORMATION ON INGREDIENTS

<u>Components:</u>	<u>CAS number</u>	<u>%</u>
Lubricant Base Oil (Petroleum)	VARIOUS	80-100
Proprietary additives	PROPRIETARY	<20
Mist Oil (If Generated)	DP 5017-68-9	N/A

SECTION 4: FIRST AID MEASURES

INHALATION: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

SKIN CONTACT: Wash thoroughly with soap and water. Wash contaminated clothing before reusing. Discard oil-soaked clothing. If irritation develops, consult a physician.

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EYE CONTACT: In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes lifting the eyelids for maximum effectiveness. **See a physician.**

INGESTION: If swallowed, do not induce vomiting. **Get medical attention.** May cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

PRIMARY ROUTE OF EXPOSURE/ENTRY: Skin, Inhalation, eyes

SIGNS AND SYMPTOMS OF EXPOSURE:

Acute: Extreme exposure or aspiration into the lungs may cause pneumonia. Overexposure may cause weakness, headache, nausea, confusion, blurred vision, drowsiness, and other nervous system effects; greater exposure may cause dizziness, slurred speech, flushed face, unconsciousness or convulsions.

Chronic: This product contains mineral oil. As with many petroleum products, it may cause irritation to the eyes, lungs, or skin after prolonged or repeated exposure. Avoid prolonged or repeated contact.

It is highly unlikely that human exposure at or below the recommended exposure level poses a significant health hazard. In this regard, good workplace practices and proper engineering designs will minimize exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None. However, like others, people with dermatitis should avoid prolonged or repeated contact with this material.

SECTION 5: FIRE FIGHTING MEASURES

NFPA 704 Hazard Class

Health: 0 Flammability: 1 Instability: 0 (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme)

FLASH POINT (ASTM D-92 C.O.C.) : **375 °F (min)**

AUTOIGNITION TEMPERATURE : Not determined

FLAMMABLE LIMITS IN AIR, (% volume)

Lower Explosive Limit- LEL : Not determined

Upper Explosive Limit- UEL : Not determined

UNUSUAL Fire and Explosion Hazards: This material may burn, but will not ignite readily. If container is not properly cooled, it can rupture in the heat of a fire. Vapors are heavier than air and can accumulate in low areas.

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EXTINGUISHING MEDIA: Water Spray, Foam, Dry Chemical, CO₂.

SPECIAL FIRE FIGHTING INSTRUCTIONS:

Special Fire Fighting Procedures: Water or Foam may cause frothing. Carbon dioxide may displace oxygen. Use care when using carbon dioxide in confined areas.

Unusual Fire and Explosion Hazards: This material may burn, but will not ignite readily. If container is not properly cooled, it can rupture in the heat of a fire. Vapors are heavier than air and can accumulate in low areas.

Procedural Notes: Use water to keep fire-exposed containers cool. Water spray may be used to flush spills away from exposures. Dike fires for disposal. Consult fire protection authorities or appropriate specialists to plan response strategy.

Firefighters should wear Self-contained Breathing Apparatus (SCBA) when fighting oil or chemical fires. Firefighters or other personnel should not enter enclosed or confined space without proper protective equipment including respiratory protection and protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPILL, LEAK, OR RELEASE

Review FIRE AND EXPLOSION HAZARDS and SAFETY PRECAUTIONS before proceeding with clean up.

Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up.

Remove all sources of heat, sparks, flame, impact, friction or electricity. Dike spill. Prevent liquid from entering sewers, waterways, or low areas. Recover free liquid for reuse or reclamation. Soak up any remaining material with sawdust, sand, oil-dry or other absorbent material. Recover absorbent for disposal. If a spill of any kind is made upon navigable waters, the contiguous zone, or adjoining shorelines notify the National Response Center (phone number 800-424-8802)

SECTION 7: HANDLING AND STORAGE

Handling: Do not enter confined spaces without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. Use appropriate respiratory protection when concentration exceeds established exposure limit.

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"Empty" (emptied) containers contain residues (vapor and liquid) which can 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.

NFPA CLASS IIIB STORAGE - Store in accordance with all National Fire Protection Association regulations.

Store in approved containers only. Keep containers tightly closed. Store in a cool dry ventilated area. Storage temperatures above 113 deg F could result in thermal breakdown of the product resulting in the generation of hydrogen sulfide and other sulfur containing gases.

Avoid contact with strong oxidizing agents, strong acids and strong bases.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS TLV (ACGIH): 5 mg/m³ TWA, 10 mg/m³ STEL for mineral oil mist in air if generated
PEL (OSHA): 5 mg/m³ for mineral oil mist in air if generated

Other : Exposure limit for Petroleum Distillate: PEL: 400 PPM; 1600 mg/m³ - 8 Hr. TWA

Note: State and local agencies may have established more stringent limits. Consult local agencies for further information.

ENGINEERING CONTROLS Ventilation practices must be maintained to keep airborne concentrations below the established exposure limits.

PERSONAL PROTECTION EQUIPMENT (PPE)

RESPIRATORY PROTECTION: Select appropriate NIOSH-approved respiratory protection where necessary to maintain exposures below acceptable limits. A respiratory protection program that meets OSHA's

20 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirators use.

PROTECTIVE GLOVES: Impermeable gloves should be worn when potential exists for skin contact. Chemical-resistant, Neoprene types are recommended.

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EYE PROTECTION: Recommended. Use chemical-resistant splash goggles or face shield when splashing or eye contact may occur.

OTHER PROTECTIVE EQUIPMENT: Sufficient to minimize skin exposure. Use chemical-resistant apron or other impervious clothing to avoid contaminating regular clothing that could result in prolonged or repeated skin contact. Launder contaminated clothing before reuse. Extremely contaminated leather shoes should be discarded.

Suggestions for the use of protective solutions are based on published available data. Users should check manufacturers recommendations and confirm with manufacturers representatives to confirm the suitability for the situation at hand.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear-Yellow (ASTM D-1500) 0.5-2.0

Odor: Mild Hydrocarbon

Odor threshold: Not determined

PH: N/A 20:1 (oil/water): N/A

Melting point/Freezing point: (°F): -10

Boiling point/Range: (°F) Wide Range

Flash Point: (ASTM D-92 C.O.C.) (°F): 375

Evaporation rate: (n-BUTYL ACETATE=1): <0.001

Flammability (solid, gas): All States

Upper/lower flammability or explosive limits: Not determined

Vapor pressure: (mmhg): <0.0001

Vapor density: (AIR=1): 12+

Relative density: (lbs/US gal 60/60 °F): 7.3-7.4

Solubility in water: Insoluble

Partition coefficient, n-octanol/water: Not determined

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Auto-ignition temperature: Not determined

Decomposition temperature: Not determined

Viscosity: (cSt @ 40°C): 32.0-74.8

SECTION 10: STABILITY AND REACTIVITY

Chemical stability: This product is considered stable under normal and anticipated storage conditions

Possibility of hazardous reactions: May react with strong acids and oxidizing agents, such as nitrates, chlorates, peroxides, etc.

Conditions to avoid: Strong acids or oxidizing agents, sparks, fire, extreme heat.

Incompatible materials: Strong acids and oxidizing agents

Hazardous decomposition products: May include sulfur oxides, carbon monoxide (CO), carbon dioxide (CO₂), oxides of carbon and nitrogen, as products of combustion. Hazardous polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

PRIMARY ROUTE OF EXPOSURE/ENTRY: Skin, Ingestion, Inhalation, eyes

SIGNS AND SYMPTOMS OF EXPOSURE:

Acute: Extreme exposure or aspiration into the lungs may cause pneumonia. Overexposure may cause weakness, headache, nausea, confusion, blurred vision, drowsiness, and other nervous system effects; greater exposure may cause dizziness, slurred speech, flushed face, unconsciousness or convulsions.

Chronic: This product contains mineral oil. As with many petroleum products, it may cause irritation to the eyes, lungs, or skin after prolonged or repeated exposure. Avoid prolonged or repeated contact.

It is highly unlikely that human exposure at or below the recommended exposure level poses a significant health hazard. In this regard, good workplace practices and proper engineering designs will minimize exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None. However, like others, people with dermatitis should avoid prolonged or repeated contact with this material.

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CARCINOGENICITY: None of the components in this material are listed as a carcinogen. (IARC, NTP, OSHA)

MUTAGENICITY: None of the components of this material are listed as a mutagen. (IARC, NTP, OSHA)

REPRODUCTIVE: No data. None listed.

EXPOSURE LIMITS TLV (ACGIH): None Established

PEL (OSHA): 5 mg/m³ for mineral oil mist in air

Other : Exposure limit for Petroleum Distillate: PEL: 400 PPM; 1600 mg/m³ - 8 Hr. TWA

SAFETY PRECAUTIONS : Wash thoroughly after handling. Wash clothing after use.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: Acute and chronic toxicity studies have been performed on lubricant base oils. Acute toxicity test results have shown that acute toxicity to fish, Diaphnia, Ceriodaphnia and algae species are above 1000 mg/L using either water accommodated fractions or oil in water dispersions. Lube oil base stocks have a very low solubility in water. Due to low water solubility it is predicted that acute toxicity would not be observed.

PERSISTANCE AND DEGRADABILITY: The petroleum hydrocarbon that make up this product are not readily biodegradable.

BIOACCUMULATIVE POTENTIAL: There is a potential for bioaccumulation but metabolic processes may reduce bio-concentration.

MOBILITY IN SOIL: The hydrocarbon components in this product will show low mobility in soil and sediment. Absorption will be the primary process.

OTHER ADVERSE EFFECTS: None expected.

SECTION 13: DISPOSAL CONSIDERATIONS

SPILL, LEAK, OR RELEASE

Review FIRE AND EXPLOSION HAZARDS and SAFETY PRECAUTIONS before proceeding with clean up.

Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up.

Remove all sources of heat, sparks, flame, impact, friction or electricity. Dike spill. Prevent liquid from entering sewers, waterways, or low areas. Recover free liquid for reuse or reclamation. Soak up any remaining material with sawdust, sand, oil-dry or other absorbent material. Recover absorbent for disposal.

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WASTE DISPOSAL

If this product becomes a waste, it DOES NOT meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D. As a nonhazardous waste, it should be disposed of in accordance with all local, state, and federal regulations by incineration. CARE MUST BE TAKEN TO AVOID CONTAMINATION FROM THE USE OF THIS MATERIAL. THE USER OF THIS MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF ALL USED AND UNUSED MATERIAL, RESIDUES, AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE, AND DISPOSAL OF HAZARDOUS AND NON-HAZARDOUS WASTES. Improper disposal may be regarded as a criminal offense.

SECTION 14: TRANSPORT INFORMATION

DOT Proper Shipping Name : PETROLEUM LUBE OIL, NOIBN

Hazard Class : Not a hazardous material for DOT shipping.

UN/NA Number : N/A

DOT Label(s) : None

DOT Placard : None

IATA/IMO Proper Shipping Name: NOT REGULATED

SECTION 15: REGULATORY INFORMATION

CERCLA, (40 CFR 302): The material is NOT known to contain any ingredient(s) subject to the act.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA), TITLE III

TITLE III HAZARD CLASSIFICATIONS : Not Regulated under SARA Title III.

Acute : not applicable

Chronic : not applicable

Fire : not applicable

Reactivity : not applicable

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Pressure : not applicable

SECTIONS 302/304 - Extremely Hazardous Substances, 40 CFR 355 This material is NOT known to contain any extremely hazardous substances at greater than 1.0% concentration; however, it is possible that this material may contain extremely hazardous substances at a lower concentration so that a large enough spill could warrant an Emergency Release Report under Sect. 304.

SECTION 313 - List of Toxic Chemicals, 40 CFR 372:

This material does not contains chemical(s) at a level of 1.0% or greater (0.1% for carcinogens) on the list of Toxic Chemicals.

TOXIC SUBSTANCES CONTROL ACT (TSCA), 40 CFR 261:

All components of this material are listed in the TSCA inventory.

(Section 13: Federal Regulations, continued)

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), 40 CFR 261:

This material-when discarded or disposed of- is NOT listed as a hazardous waste in Federal regulations; *however*, it could be considered hazardous if it meets criteria for being toxic, corrosive, ignitable or reactive according to current U.S. EPA definitions (40 CFR 261). This material could also become a hazardous waste if it is mixed with or comes in contact with a listed hazardous waste. If it becomes a hazardous waste, then regulations 40 CFR 262-266 and 40 CFR 268 may apply.

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT (40 CFR 116.4A, SECTION 311)

The material contains the following ingredient(s) which is considered hazardous if spilled in navigable waters:

Ingredient: Petroleum Hydrocarbon

Reportable Quantity: Film or sheen upon or discoloration of the water surface or adjoining shoreline.

HAZARDOUS MATERIALS TRANSPORTATION REGULATIONS, (49 CFR 171-178)

The material is NOT known to contain any ingredient(s) subject to the act.

FOREIGN REGULATIONS:

CANADIAN HAZARDOUS PRODUCTS ACT (WHMIS): This material is NOT a WHMIS regulated product.

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STATE REGULATIONS:

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 ("PROPOSITION 65")

Not applicable.

PENNSYLVANIA WORKER AND COMMUNITY RIGHT TO KNOW ACT

The material contains the following substances found on the Pennsylvania Hazardous Substance List:

Ingredient(s):	CAS Reg. No.	Category:
Not applicable	Not applicable	Not applicable

Nonhazardous ingredient(s) information is withheld as a trade secret in accordance with Section 11 of the act.

SECTION 16: OTHER INFORMATION

Date of issue: 01/01/2014

Disclaimer or Expressed and Implied Warranties:

The above data are based on test, experience, and other information which Port Consolidated, Inc. believes reliable and are supplied for information purposes only. However, some ingredients may have been purchased or obtained from third-party manufacturers. In these instances, Port Consolidated, Inc. in good faith, relies on information provided by those third parties. Since conditions of use are outside our control, PORT CONSOLIDATED INC. DISCLAIMS ANY LIABILITY FOR DAMAGE OR INJURY WHICH RESULTS FROM USE OF THE ABOVE DATA. NOTHING CONTAINED HEREIN SHALL CONSTITUTE A GUARANTEE, WARRANTY (INCLUDING WARRANTY OF MERCHANTABILITY) OR REPRESENTATION (INCLUDING FREEDOM FROM PATENT LIABILITY) BY PORT CONSOLIDATED, INC. WITH RESPECT TO THE DATA, THE MATERIAL DESCRIBED, OR ITS USE FOR ANY SPECIFIC PURPOSE, EVEN IF THAT PURPOSE IS KNOWN TO PORT CONSOLIDATED, INC.

END OF MATERIAL SAFETY DATA SHEET