

PERFORMANCE PLUS AW ZF HYDRAULIC OIL ISO 46
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA



SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: PERFORMANCE PLUS AW ZF HYDRAULIC OIL ISO 46

SYNONYMS: Petroleum oil; Lube oil; Petroleum hydrocarbon; Lubricant.

PRODUCT CODE: Prefix 31

PRODUCT USE: For lubricating hydraulic systems.
If this product is used in combination with other products, refer to the Material Safety Data Sheet for those products.

This number is for emergency use only. If you desire non-emergency product information, please call a phone number listed below.

**24-HOUR EMERGENCY PHONE NUMBERS
MEDICAL AND TRANSPORTATION (SPILL):**

1-800-468-1760

SUPPLIER: Safety-Kleen Systems, Inc.
5360 Legacy Drive
Building 2, Suite 100
Plano, Texas 75024
USA
1-800-669-5740
www.Safety-Kleen.com

TECHNICAL INFORMATION: 1-800-669-5740 Press 1, then 1, then Extension 7500

MSDS FORM NUMBER: 82961

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PREPARED BY: Product MSDS Coordinator

APPROVED BY: MSDS Task Force

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SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE
Liquid, amber, petroleum odor.

CAUTION!

HEALTH HAZARDS
May irritate the eyes and skin.
May be harmful if swallowed.

POTENTIAL HEALTH EFFECTS

INHALATION (BREATHING): This product is not likely to present an inhalation hazard at normal temperatures and pressures. However, when aerosolizing, misting, or heating this product, high concentrations of generated vapor or mist may irritate the respiratory tract (nose, throat, and lungs).

EYES: May cause irritation.

SKIN: May cause irritation. Not likely to be absorbed through the skin in harmful amounts.

INGESTION (SWALLOWING): May be harmful if swallowed. May cause throat irritation, nausea, vomiting, and diarrhea. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with pre-existing respiratory tract (nose, throat, and lungs), eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

CHRONIC: Prolonged or repeated inhalation of oil mist may cause oil pneumonia, lung tissue inflammation, and/or fibrous tissue formation. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis).

CANCER INFORMATION: No known carcinogenicity. For more information, see **SECTION 11: CARCINOGENICITY**.

Also see **SECTION 15: CALIFORNIA**.

POTENTIAL ENVIRONMENTAL EFFECTS

Not available. Also see **SECTION 12: ECOLOGICAL INFORMATION**.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component	Synonyms	Percent
64742-58-1	Lubricating oils, petroleum, hydrotreated spent	Hydrotreated paraffinic base oil	98-99

The remainder of the ingredients are additives. Each individual additive ingredient is present in concentrations of less than 1 WT% (or 0.1 WT% for carcinogens). Each individual additive is not present in concentrations that would exceed an established OSHA Permissible Exposure Limit or ACGIH Threshold Limit Value® or present at concentrations that present a health risk. The total of all additives in this product is approximately 1 WT%.

SECTION 4: FIRST AID MEASURES

INHALATION (BREATHING): Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.

EYES: If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.

SKIN: Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists. If product is injected under pressure into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, a physician should immediately evaluate the individual as a medical emergency.

INGESTION (SWALLOWING): Do NOT induce vomiting. Immediately get medical attention. Call 1-800-468-1760 for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything by mouth to an unconscious person.

NOTE TO PHYSICIANS: Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-468-1760 for additional information.

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SECTION 5: FIRE FIGHTING MEASURES

HAZARDOUS COMBUSTION PRODUCTS:

Decomposition and combustion materials may be toxic. Burning may produce carbon monoxide and unidentified organic compounds.

CONDITIONS OF FLAMMABILITY:

Flame. Product may burn, but does not ignite readily.

PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:

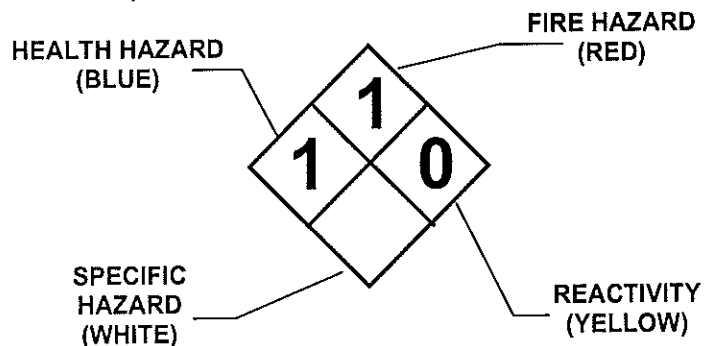
A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

EXTINGUISHING MEDIA:

Carbon dioxide, regular foam, dry chemical, water spray, or water fog. Water or foam may cause frothing.

NFPA 704 HAZARD IDENTIFICATION:

This information is intended solely for the use by individuals trained in this system.



FIRE FIGHTING INSTRUCTIONS:

Keep storage containers cool with water spray.

FIRE AND EXPLOSION HAZARDS:

Heated containers may rupture. "Empty" containers may retain residue and can be dangerous. Product is not sensitive to mechanical impact or static discharge.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal.

Additionally, for large spills: Dike far ahead of liquid spill for collection and later disposal.

SECTION 7: HANDLING AND STORAGE

HANDLING: Keep away from flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean tools. This product has a low vapor pressure and is not expected to present an inhalation hazard under normal temperatures and pressures. However, when aerosolizing, misting, or heating this product, do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes.

SHIPPING AND STORING: Keep container tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from flame or other sources of ignition. Empty product containers may retain product residue and can be dangerous.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES:

- Lubricating oils, petroleum, hydrotreated spent (64742-58-1)**
- ACGIH: 5 mg/m³ TWA (sampled by method that does not collect vapor) (related to Oil mist, mineral)
10 mg/m³ STEL (related to Oil mist, mineral)
- OSHA: 5 mg/m³ TWA (related to Oil mist, mineral)
- NIOSH: 5 mg/m³ TWA (related to Oil mist (mineral))
10 mg/m³ STEL (related to Oil mist (mineral))

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ENGINEERING CONTROLS: Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: Use NIOSH-certified P- or R- series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Do not use N-rated respirators. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

EYE PROTECTION: Where eye contact is likely, wear chemical goggles; contact lens use is not recommended.

SKIN PROTECTION: Where skin contact is likely, wear chemical impervious protective gloves; use of natural rubber or equivalent gloves is not recommended.

When product is heated and skin contact is likely, wear heat-resistant gloves, boots, and other protective clothing.

To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, coveralls, long sleeve shirts, or other protective clothing.

PERSONAL HYGIENE: Use good personal hygiene. Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard leather articles, such as shoes, saturated with this product.

OTHER PROTECTIVE EQUIPMENT: Where spills and splashes are likely, facilities storing or using this product should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE, APPEARANCE, AND ODOR: Liquid, amber, petroleum odor.

ODOR THRESHOLD: Not available

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MOLECULAR WEIGHT:	Not applicable
SPECIFIC GRAVITY:	0.88 (water = 1) (approximately)
DENSITY:	7.3 LB/US gal (870 g/L) (approximately)
VAPOR DENSITY:	Not available
VAPOR PRESSURE:	less than 0.1 mm Hg at 68°F (20°C)
BOILING POINT:	475°F (246°C) (minimum)
FREEZING/MELTING POINT:	Not available [pour point -22°F (-30°C) (maximum)]
pH:	Not applicable
EVAPORATION RATE:	Not available
SOLUBILITY IN WATER:	Insoluble
FLASH POINT:	392°F (200°C) (minimum) Cleveland Open Cup
FLAMMABLE LIMITS IN AIR:	LOWER: Not available. UPPER: Not available.
AUTOIGNITION TEMPERATURE:	Not available.

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Stable under normal temperatures and pressures.
CONDITIONS TO AVOID:	Avoid sparks or flame.
INCOMPATIBILITY:	Avoid oxidizing agents.
REACTIVITY:	Polymerization is not known to occur under normal temperature and pressures. Not reactive with water.
HAZARDOUS DECOMPOSITION PRODUCTS:	None under normal temperatures and pressures. See also SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.

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SECTION 11: TOXICOLOGICAL INFORMATION

TOXICITY DATA:

Component Analysis - LD50/LC50

Lubricating oils, petroleum, hydrotreated spent (64742-58-1)

Oral LD50 Rat: >2000 mg/kg

Dermal LD50 Rat: >2000 mg/kg

Dermal LD50 Rabbit: >4480 mg/kg

ACUTE EFFECTS: May irritate the respiratory tract (nose, throat, and lungs), eyes, and skin. May be harmful if swallowed. May cause nausea, vomiting, and diarrhea. Aspiration Hazard: Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

REPEATED DOSE EFFECTS: Based on best current information, there is no known human sensitization associated with this product.

Experimental evidence suggests that this product does not cause mutagenesis.

Based on best current information, there is no known reproductive toxicity associated with this product.

Based on best current information, there is no known teratogenicity associated with this product

CARCINOGENICITY: Based on best current information for the components in **SECTION 3**, there is no known carcinogenicity as categorized by ACGIH A1 or A2 substances; as categorized by IARC Group 1, Group 2A, or Group 2B agents; or as listed by NTP as either known carcinogens or substances for which there is limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals.

Also see **SECTION 15: CALIFORNIA.**

TARGET ORGAN EFFECTS: Prolonged or repeated inhalation of oil mist may cause oil pneumonia, lung tissue inflammation, and/or fibrous tissue formation.

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SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: Component Analysis - Ecotoxicity - Aquatic Toxicity

Lubricating oils, petroleum, hydrotreated spent (64742-58-1)

Test & Species		Conditions
96 Hr LC50 Brachydanio rerio	79.6 mg/L	semi-static
96 Hr LC50 Pimephales promelas	3.2 mg/L	semi-static

PERSISTANCE/DEGRADABILITY: No information available for the product.

BIOACCUMULATION/ACCUMULATION: No information available for the product.

MOBILITY IN ENVIRONMENTAL MEDIA: No information available for the product.

OTHER ADVERSE EFFECTS: No additional information available.

OCTANOL/WATER PARTITION COEFFICIENT: Not available

VOLATILE ORGANIC COMPOUNDS: Negligible

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL: Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

USEPA WASTE CODE(S): This product, if discarded, is not expected to be a characteristic or listed hazardous waste. If recycled in the USA, it must be managed in accordance with 40 CFR Part 279. Processing, use, or contamination by the user may change the waste code(s) applicable to the disposal of this product.

SECTION 14: TRANSPORT INFORMATION

DOT: Shipping Name: Not regulated as a hazardous material.

TDG: Shipping Name: Not regulated as a dangerous good.

EMERGENCY RESPONSE GUIDE NUMBER: Not applicable
Reference *North American Emergency Response Guidebook*

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SECTION 15: REGULATORY INFORMATION

USA REGULATIONS

**SARA SECTIONS
302 AND 304:**

Based on the ingredient listed in **SECTION 3**, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

**SARA SECTIONS
311 AND 312:**

This product poses the following health hazards as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):

Immediate (Acute) Health Hazard
Delayed (Chronic) Health Hazard

**SARA SECTION
313:**

This product does not contain "toxic" chemicals subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

CERCLA:

Based on the ingredient listed in **SECTION 3**, this product does not contain any "hazardous substances" listed pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

TSCA:

All the components of this product are listed on, or are automatically included as "naturally occurring chemical substances" on, or are exempted from the requirement to be listed on, the TSCA Inventory.

CALIFORNIA:

This product contains ethyl acrylate CAS 140-88-5 and aniline CAS 62-53-3 from additives. This product may contain detectable amounts of benzo(a)anthracene CAS 56-55-3, benzo(k)fluoranthene CAS 207-08-9, benzo(a)pyrene CAS 50-32-8, benzo(b)fluoranthene CAS 205-99-2, chrysene CAS 218-01-9, dibenz(a,h)anthracene CAS 53-70-3 and indeno(1,2,3-cd)pyrene CAS 193-39-5. **WARNING:** These chemicals are known to the State of California to cause cancer. Our testing of this product indicates that these chemicals are not always detectable.

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CANADIAN REGULATIONS

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): All the components of this product are listed on, or are automatically included as "substance occurring in nature" on, or are exempted from the requirements to be listed on, the Canadian Domestic Substances List (DSL).

SECTION 16. OTHER INFORMATION

REVISION INFORMATION: Regulatory update. Update to Section 1.

LABEL/OTHER INFORMATION: Not available.

User assumes all risks incident to the use of this (these) product(s). To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either express or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the product(s) as supplied to the user.



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