Material Safety Data Sheet

Prepared According to the OSHA Hazard Communication Standard (29 CFR 1910.1200).
(Formerly Called MATERIAL INFORMATION BULLETIN)

Gulf

GULF DIESELUBE HD 30 CPS 331313

TYPICAL COMPOSITION

Highly refined base oil (CAS 64742-65-0)	<95%
Additives including dispersants, inhibitors, antioxidant, antiwear and antirust agents, neutralizer, pour depressants, magnesium alkyl benzene sulfonate and zinc dialkyldithiophosphate (CAS 68649-42-3)	<10%

EXPOSURE STANDARD

No Federal OSHA exposure standard or ACGIH TLV has been established for this material. Based on information reviewed to date, we recommend an exposure standard of 5 mg/m^3. This is the Federal OSHA exposure standard and the ACGIH (1984-85) TLV for mineral oil mists.

PHYSIOLOGICAL & HEALTH EFFECTS	EMERGENCY & FIRST AID PROCEDURES
Eyes	
Expected to cause no more than minor eye irritation.	Flush eyes immediately with fresh water for at least 15 minutes while holding the eyelids open. If irritation persists, see a doctor.
Skin	
Expected to cause no more than minor skin irritation following prolonged or frequently repeated contact.	Wash skin thoroughly with soap and water. Launder contaminated clothing.
Inhalation	
Not expected to be acutely toxic by inhalation. Breathing mineral oil mist at concentrations in air that exceed the recommended exposure standard can cause respiratory irritation or discomfort. See Additional Health Data.	If respiratory discomfort or irritation occurs, move the person to fresh air. See a doctor if discomfort or irritation continues.
Ingestion	
Not expected to have acute systemic toxicity by ingestion.	If swallowed, give water or milk to drink and telephone for medical advice. Consult medical personnel before inducing vomiting. If medical advice cannot be obtained, then take the person and product container to the nearest medical emergency treatment center or hospital.

The Standard Oil Company and its Subsidiaries
Gulf Products Division, BP Oil Inc.
200 Public Square, Cleveland, Ohio 44114

EMERGENCY PHONE (Toll-Free)
In Ohio: 800-362-8059
Outside Ohio: 800-321-8642
CHEMTREC Assist: 800-424-9300
Other Product Safety Info: 216-575-8024

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ADDITIONAL HEALTH DATA

See Page 3.

SPECIAL PROTECTIVE INFORMATION

Eye Protection: No special eye protection is necessary.
Skin Protection: No special skin protection is necessary.
Respiratory Protection: No special respiratory protection is normally required. However, if operating conditions create airborne concentrations which exceed the exposure standard, the use of an approved respirator is recommended.
Ventilation: Use adequate ventillation to keep the airborne concentrations of this material below the recommended exposure standard.

FIRE PROTECTION

Flash Point: (PM)435°F(244°C)
Autoignition Temp.: NDA
Flammability Limits: NDA
Extinguishing Media: Dry Chemical, Foam, Water Fog
Special Fire Fighting Procedures: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment. This may include self-contained breathing apparatus to protect against the hazardous effects of normal products of combustion or oxygen deficiency. Read the entire bulletin.

SPECIAL PRECAUTIONS

DO NOT weld, heat or drill container. Residue may ignite with explosive violence if heated sufficiently.

CAUTION! Do not use pressure to empty drum or explosion may result.

ENVIRONMENTAL PROTECTION

X-IRC031 (04-85)

Environmental Impact: This material is not expected to present any environmental problems other than those associated with oil spills.
Precautions if Material is Released or Spilled: Stop the source of the leak or release. Clean up releases as soon as possible. Contain liquid to prevent further contamination of soil, surface water or groundwater. Clean up small spills using appropriate techniques such as sorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger releases.
Waste Disposal Methods: Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material.

REACTIVITY DATA

Stability (Thermal, Light, etc.): Stable
Incompatibility (Materials to Avoid): May react with strong oxidizing materials.
Hazardous Decomposition Products: Normal combustion forms carbon dioxide and water vapor; incomplete combustion can produce carbon monoxide.
Hazardous Polymerization: Will not occur.

PHYSICAL PROPERTIES

Solubility: Insoluble in water; miscible with hydrocarbon solvents.
Appearance (Color, Odor, etc.): Clear, brown oil with reddish cast
Boiling Point: NDA
Melting Point: n/a
Specific Gravity: 0.89
Vapor Pressure: n/a
Vapor Density (Air=1): n/a
Percent Volatile (Volume %): n/a
Evaporation: n/a
Pour Point: -5°F (-21°C)
Viscosity: 119.6 cSt @ 100°F

n/a = Not Applicable
NDA = No Data Available

The above information is based on data of which we are aware and is believed to be correct as of the date hereof. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

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ADDITIONAL HEALTH DATA

Signs and symptoms of respiratory tract irritation may include, but may not be limited to, one or more of the following, depending on concentration and length of exposure: nasal discharge, nosebleed, sore throat, coughing, bronchitis, pulmonary edema and difficulty in breathing.

This product contains zinc dialkyldithiophosphate (ZDDP). ZDDPs have been tested by repeated application to the skin of young rabbits for three weeks. These rabbits developed severe skin damage, weight loss, and adverse testicular effects. Follow-up studies indicated similar testicular effects can be produced by placing rabbits on a restricted diet and causing them to lose weight or by treating rabbits with simple caustic chemicals and causing them to develop both severe skin irritation and weight loss. Rats similarly treated with ZDDP did not develop testicular effects even when skin damage and weight loss occurred. These results indicate that the testicular effects seen in rabbits were not caused by the toxicity of ZDDPs but were due to the species reaction to stress from severe skin irritation and weight loss. There is no evidence that human exposure to ZDDPs in the workplace will cause testicular effects since occupational exposure does not cause stress from severe skin irritation and weight loss similar to that observed in rabbits. In summary, we now believe there is no risk of male reproductive impairment from working with ZDDP.

Several ZDDPs have also been found to have weak mutagenic activity in cultured mammalian cells. The low level of activity occurred only at ZDDP concentrations which were highly toxic to the test cells. Since mutagenic activity was observed with zinc chloride but not with calcium dialkyldithiophosphate, the weak mutagenic activity of ZDDP may be due to the zinc in the chemical. Zinc is abundant in the environment, is an essential element in our diets, and it is generally accepted that zinc is not a health hazard. Therefore, we do not believe the test results discussed above indicate a genetic hazard to employees working with ZDDPs. Appropriate personal hygiene procedures as outlined in the MSDS, should, of course, be followed since ZDDPs in concentrated form are irritating to the skin.

This product also contains calcium phenate. When a similar calcium phenate was applied to the skin of rabbits five days/week for four weeks, the animals developed adverse testicular effects. Studies with other chemicals have since shown that rabbits may develop similar testicular effects due to stress rather than to chemical toxicity. We further investigated the effects of calcium phenates in rats, a species now recognized as more appropriate than rabbits for investigating toxicity by repeated skin exposures. Calcium phenate applied five days/week for four weeks to the skin of rats did not produce adverse testicular effects. Based on these data, we believe that there is no risk of male reproductive impairment from exposure to calcium phenate in the workplace.

This product contains magnesium alkyl benzene sulfonate (MABS). MABS have been tested by repeated application to the skin of male rabbits. Severe skin irritation, weight loss, adverse testicular effects (e.g., decreased weight) and liver effects (e.g., enlarged liver) were seen in rabbits treated with 100% MABS. Studies with other chemicals have since shown that rabbits may develop similar testicular effects due to stress rather than to chemical toxicity. No adverse liver effects were found four weeks after the end of treatment with 100% MABS. When the test material was a 25% solution of MABS in white oil,