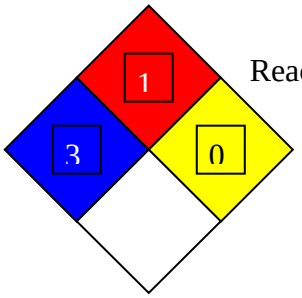
Jordan Lube Oil Manufacturing Company
Material Safety Data Sheet
Perfect

NFPA: Flammability



JPRC LUB-1

HMIS III:

Flammability	1
Health	3
Reactivity	0

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	Perfect (20W/50, 20W/40, 10W/30,10w/40, 15W/40)
MSDS Number:	JPRC LUB-1
Product Use Description:	Perfect is recommended for use in all modern gasoline powered.
Company	Jordan Lube Oil Manufacturing Co. Amman – Jordan. TEL: + 962 6 4630151 or 4657600 FAX: + 962 6 4657934 or 4657939 P.O.BOX: 3396 Amman 11181 – Jordan P.O.BOX: 1079 Amman 11118 – Jordan LubOilProduction@jopetrol.com.jo

SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS.

COMPOSITION :	Base oils GII
DI package	API SL package
Additive package :	
VII	Viscosity Index Improver
PPD	Pour Point Depressant

SECTION 3. HAZARDS IDENTIFICATION

Hazardous identification

US OSHA hazard communication standard for base oils :	Product assessed in accordance with OSHA 29 CFR 1910.1200 & determined to be hazardous Effects of over exposure: no significant effects expected. Emergency response data: black semi – solid. Dot ERG NO.- NA
Hazard Identification for (HiTEC 9386X/HiTEC 5748):	The preparation are classified as dangerous according to Directive 1999/45/EC and they are amendments.

SECTION 4. FIRST AID MEASURES

First Aid Measures:

Eye Contact	Flush thoroughly with water for at least 15 min. If irritation occurs , call a physician
Skin contact	Wash contact areas with soap & water Get medical attention if irritation developed.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion	If affected person is fully conscious, give one glass of water to drink. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

SECTION 5. FIRE-FIGHTING MEASURES

Fire- Fighting Measure

Extinguishing media:	Carbon dioxide, foam, dry chemical, and water fog.
Special fire fighting procedures:	Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.
Special protective equipment:	For fires in enclosed areas, fire fighters must use self-contained breathing apparatus (SCBA) and full turnout gear.
Unusual fire and explosion hazards	Storage tank headspace may contain

	flammable atmosphere. Flammable limits- LEL: NA, UEL: NA.
NFPA hazard ID	Health : 3, Flammability : 1, Reactivity : 0
Hazardous decomposition products	Carbon monoxide, carbon dioxide, some metallic oxides.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Accidental Release Measures	This material if slippery might cause traffic accident. If split on road, it must be cover with sand immediately. in the event of a spill or leak or accident person not wearing protective equipment & clothing should be restricted from contaminated areas until clean up has been completed. the following steps should be undertaken following a spill or leak: 1- Notify safety personal. 2- Remove all sources of heat and ignition. 3- Ventilate potentially explosive atmospheres. 4- Do not touch the spilled material; stop the leak if it is possible to do so without risk. 5- Use water spray to reduce vapors; do not get water inside container. Do not flush waste to sewers or open waterways. 6- For liquid spills, cover with sand and then remove for later disposal. 7- Prevent spills from entering storm sewers or drains.
Personal precautions	Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable (see section 8) protective equipment. Follow all fire-fighting procedures.

SECTION 7. HANDLING AND STORAGE

Handling:	Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing vapor or mist. Wash thoroughly after handling.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area. store away from strong oxidizing agents or combustible material.
IMO CLASS>	not regulated as dangerous
UN	Not applicable

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure controls/ personal protection	
Respiratory protection	Use appropriate respiratory production if there is the potential to exceed the exposure limit
Skin and body	Deposable outer garments when there is the potential for contact with the material
Hands	Use chemical resistant apron and / or other clothing to protect against hot liquid & to avoid skin contact
Eyes	Safety goggles are considered minimum protection. goggles with a face shield may be necessary depending on quantity of material & conditions of yours.
Engineering controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below there respective threshold limits value.
Occupational exposure limits	
Ingredient name: DI package , Base oil GII	ACGIH TWA : 5 mg/m^3 STEL : 10 mg/m^3 OSHA TWA : 5 mg/m^3
Exposure limit for oil mist:	5.00 mg/m^3

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES	
Form:	Liquid
Appearance:	Bright and Clear, Light Brown.
VI for perfect	Min 115
Flash point:	MIN 224 ° C (COC)
BN:	9 mgKOH/g
Sulfated Ash WT%:	1.20
Density for Perfect 20W/50 (SL):	0.8913 g/cm^3 @ 15 ° C Test Method: ASTMD 4052
Density for Perfect 10W/40 (SL):	0.881 g/cm^3 @ 15 ° C Test Method: ASTMD 4052
Density for Perfect 15W/40 (SL):	0.8835 g/cm^3 @ 15 ° C Test Method: ASTMD 4052
Kinematic viscosity for Perfect 10W/40:	14 CST @100 ° C Test Method: ASTMD 7042
Kinematic viscosity for Perfect 15W40	14 CST @100 ° C Test Method: ASTMD 7042
Kinematic viscosity for Perfect 20W50	19 CST @100 ° C Test Method: ASTMD 7042
Dynamic viscosity for Perfect 10W/40:	Max 7000 centi poise @ -25 Test Method: ASTMD 5293
Dynamic viscosity for Perfect 20W/50:	Max 9500 centi poise @ -15 Test Method: ASTMD 5293
Dynamic viscosity for Perfect 15W/40:	Max 7000 centi poise @ -20 Test Method: ASTMD 5293

Pour point for Perfect 10W/40	-33
Pour point for Perfect 15W/40	-27
Pour point for Perfect 20W/50	-24
Evaporation loss %wt	Max 12 %wt

SECTION 10. STABILITY AND REACTIVITY

Stability:	The product is stable.
Material to avoid:	Strong oxidizing and reducing agents.
Condition to avoid:	High temperatures, sparks, and open flames.
Hazardous decomposition products:	Sulphur oxides. Hydrogen sulphide. Carbon monoxide.

SECTION 11. TOXICOLOGICAL INFORMATION

Routes of Entry	Skin, Eyes, Ingestion, and Inhalation
Target Organs	Contains material which may cause damage to the following organs: upper respiratory tract, skin, eyes.
Acute Effects	
Inhalation	Irritating to respiratory system. (Does not meet EU R37 classification criteria.)
Ingestion	Not determined.
Skin contact	Non-irritating to the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin, resulting in non- allergic contact dermatitis and absorption through the skin.
Eye contact	Irritating to eyes. (Dose not meet EU R41 or R36 classification criteria.)
LD_{50}	2000 mg/kg

SECTION 12. ECOLOGICAL INFORMATION

Environmental Hazards	Harmful to aquatic organisms. May cause long- term adverse effects in the aquatic environment. Based on calculation.
Environmental Fate	This product contains components which may be persistent in the environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste disposal	Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited pursuant to the resource conservation and recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at an appropriate government waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.
RCRA Information	The unused product, in our opinion, is not specifically listed by the EPA as a

	hazardous waste (40CFR, Part 261D), nor is not formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosively, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

SECTION 14. REGULATORY INFORMATION

Risk Phrases: (HiTEC 9386X, HiTEC 5748)	R52/53-Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R36/38- Irritating to eyes and to skin. R50-Very toxic to aquatic organisms. R51- Toxic to aquatic organisms.
Safety Phrases: (HiTEC 9386X, HiTEC 5748)	S61-Avoid release to the environment. Refer to special instructions/Safety data sheets.

SECTION 15. OTHER INFORMATION

LD_{50}	Lethal Dose (mg/kg)
PEL	Permissible Exposure Limits
NFPA	National Fire Protection Association:
PPE	Personal Protective Equipment
SCBA	Self – Contained Breathing Apparatus
TWA	Time – Weighted Average.
OSHA	Occupational Safety And Health Administration
ACGIH	American Conference of Governmental Industrial Hygienists