WORLD OIL
REFINING

SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Union standards

1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED):	ASPHALT PG 64-10
MANUFACTURER'S NAME:	**WORLD OIL CORPORATION** **Lunday-Thagard Company (LTR)**
ADDRESS:	9302 Garfield Ave., South Gate, CA 90280
BUSINESS PHONE:	(562) 928-7000
EMERGENCY PHONE:	(800) 424-9300 (CHEMTREC)
DATE ISSUED:	April 11, 2011
REVISION DATE:	March 22, 2016

2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW:
Product Description: Asphalt is a hydrocarbon mixture combination of hydrocarbon compound containing relatively high proportion of compounds with high carbon to hydrogen ratio, sometimes oxidized and mixed with polymer additive to meet customer's specifications. **Health Hazards**: Exposure to liquid or vapor may cause eye irritation. Prolonged or repeated exposure to skin can cause irritation and/or dermatitis. Exposure to high vapor concentrations can cause respiratory irritation. If swallowed this product may get sucked into lungs (aspirated) and cause lung damage or even death. **Flammability Hazards:** This product is a Flammable Liquid. **Reactivity Hazards:** Hot product will cause explosion if it comes in contact with water. **Environmental Hazards:** This product may be harmful to aquatic life if released into the environment. **Emergency Considerations:** Emergency responders must wear the proper personal protective equipment suitable for the situation to which they are responding.

EU LABELING AND CLASSIFICATION: This product meets the definition of a hazardous substance or preparation according to EU Regulations (EC) No 1272/2008.

INDEX NUMBER:
EC# 232-490-9This substance is not classified in the Annex I of Directive 67/548/EEC
EC# 265-196-4 9This substance is not classified in the Annex I of Directive 67/548/EEC
EC# 231-977-3 Is listed in Annex I, Index# 016-001-00-4
GHS CLASSIFICATIONS:
Flammable Gas Category 1
Acute Toxicity Category 2
SIGNAL WORD: Danger

HAZARD STATEMENT:

H220	Extremely Flammable gas
H330	Fatal if inhaled
H400	Very Toxic to aquatic life

PREVENTION STATEMENT:

P260	Avoid breathing dust/fume/gas/mist/vapors/spray
P271	Use in well ventilated area.
P281	Use personal protective equipment as required

HEALTH HAZARDS OR RISKS FROM EXPOSURE:

HEALTH AND SAFETY ALERT:

Hydrogen Sulfide (H_2S) is extremely flammable, highly toxic gas, which can be emitted from heated asphalt and may accumulate in storage tanks and bulk transportation compartments. At low concentration, H_2S is irritating to eyes and throat, and at high concentration can cause rapid unconsciousness and death. Use proper ventilation or work upwind from the source of fumes and vapor.

Potential Health Effects: Acute (Short Term):

This product if heated, may release asphalt fumes that may cause irritation to the throat, nose and skin irritation. If inhaled, the fumes may cause nausea, headache, or dizziness. Prolonged and repeated contact with cold asphalt may cause dermatitis and other skin problems, while contact with hot product will cause thermal burns. If ingested, the product may cause internal organ irritation and upset that may cause possible nausea, vomiting, and diarrhea. Hot asphalt droplets or particles can cause eye burns or irritation. A splash in the eye of hot asphalt can cause serious eye injury.

Chronic (Long Term):

Prolonged and repeated contact with asphalt may cause dermatitis and other skin problems. Studies show that asphalt as possibly carcinogen to humans with limited evidence in humans in the absence of sufficient evidence in experimental animals. However, this product contains low level of polynuclear aromatics, which may cause skin lesions and skin cancer.

Medical Condition Generally Aggravated by Exposure:

Medical conditions that show or have the same symptoms and effects as those outlines under health hazard information section or an individual that has a history of chronic skin or respiratory conditions can be aggravated by exposure to this product.

Possible Route(s) of Entry: Inhalation of dusts and fumes, skin, eye, and ingestion.

3. COMPOSITION and INFORMATION ON INGREDIENTS

Asphalt is a hydrocarbon mixture combination of hydrocarbon compounds containing relatively high proportion of compounds with high carbon to hydrogen ratio, sometimes oxidized and mixed with polymer additive to meet customer's specifications.

Common Name – Asphalt **Chemical Name** – Petroleum Asphalt
CAS No. – 8052-42-4 **Wt. % - ~50-100**

NOTE: ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2004 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard *JIS Z 7250: 2000.*

4. FIRST-AID MEASURES

Inhalation: Remove individual from exposure. If problem persist, administer artificial respirator and seek medical attention.

Skin Contact: If hot product strikes skin, drench area with water to assist cooling. DO NOT try to remove product from burn after it has cooled. Seek medical attention. Medical personnel can remove cooled product with petroleum jelly. If cooled product contact with skin, wash area with hot soapy water.

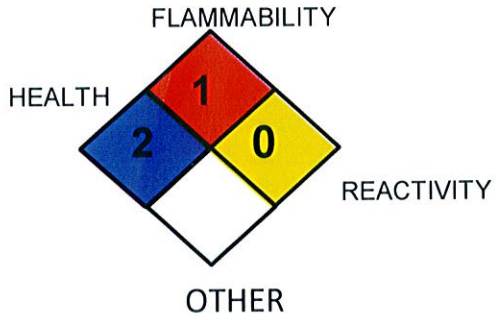
Eye Contact: If asphalt gets into the eyes, remove any contact lenses at once and irrigate immediately for 15 minutes. Occasionally lifting upper and lower lids.

Ingestion: DO NOT induce vomiting. In general no treatment is necessary, unless large quantities are ingested. However, seek medical attention.

5. FIRE-FIGHTING MEASURES

FLASH POINT: >525° F
AUTOIGNITION TEMPERATURE: Not Established
FLAMMABLE LIMITS (in air by volume, %): Lower NA Upper NA
FIRE EXTINGUISHING MATERIALS: Limited water spray, carbon dioxide, foam, dry chemical, halon, other "B" type
UNUSUAL FIRE AND EXPLOSION HAZARDS: Hot product may ignite flammable material on flash. DO NOT heat above flash point.
Explosion Sensitivity to Mechanical Impact: Not Sensitive
Explosion Sensitivity to Static Discharge: Not Sensitive
SPECIAL FIRE-FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

NFPA RATING:



Scale: **0** = Minimal **1** = Slight **2** = Moderate
3 = Serious **4** = Severe * = Chronic hazard

6. ACCIDENTAL RELEASE MEASURES

It is user's responsibility to report any accidental release as required by applicable federal, state, and/or local agencies.

Procedure:
Call 911. Keep liquid out of watercourse and sewers. Isolate hazard area and deny entry to non-emergency personnel. Eliminate source of ignition, dike spills.

Other Information:
Absorbent Material: Sand and soil.
Incompatible Material: Water, avoid contact with water.

7. HANDLING and STORAGE

Handling and Storage:
DO NOT store heated material above its flash point and DO NOT load material to container that has water. In general, protect against physical damage. Outside or detached storage is preferred. Keep containers separated from strong oxidizer materials. Asphalt may contain hydrogen sulfide and sulfur dioxide, therefore, it is recommended to wear appropriate respiratory protection when first opening containers.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

General Work Hygienic Practices:

Always wear recommended PPE and wash hands after handling material. Avoid any unnecessary exposure to the material. Shower after exposure and wash work clothes when contaminated. Safety showers and eye wash stations should be available.

Ventilation:

Provide sufficient local and/or general exhaust ventilation. In outdoor application where material is heated, keep kettle downwind of workers.

Personal Protective Equipment

Respiratory protection:

Respiratory protection is not required during normal use. However, when first opening tank trucks, railcars, or other containers, it is recommended to wear appropriate NIOSH approved respiratory protection. Appropriate NIOSH approved respiratory protection must be worn if material is heated and/or generate asphalt fumes and/or hydrogen sulfide above the OSHA and ACGIH recommended limits. Use the respiratory protection in accordance with your company's respiratory program.

Skin protection:

At least workers have to wear loose fitting, long sleeved shirt and long pants. When come in contact with hot material, heat insulated, leather, or lined neoprene coated gloves should be worn.

Eye protection:

Safety glasses or chemical goggles may be required.

Hazardous Ingredients:

Ingredients	OSHA PEL	ACGIH TLV
Asphalt	5 mg/m3 (respirable)	0.5 mg/m3 (as benzene-extractable inhalable particulate)
	15 mg/m3 (total)	
Hydrogen Sulfide	20 ppm ceiling	10 ppm 15 ppm STEL

9. PHYSICAL and CHEMICAL PROPERTIES

Appearance and Odor:	Brown to black heavy liquid or solid with petroleum odor
Molecular Weight:	800 to 2000
Boiling Point:	Above 700F
Melting Point:	140F to 250F
Vapor Pressure:	N/A
Vapor Density:	N/A (air=1)
Specific Gravity:	>1 (water=1)
Solubility in Water:	N/A
Evaporation Rate:	N/A (butyl acetate=1)

10. STABILITY and REACTIVITY

Stability: Stable
Reactivity: Hot product will cause explosion if it comes in contact with water
Avoid contact with strong oxidizer
Hazardous Polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

Carcinogenicity:

Ingredients	ACGIH	IARC	NTP	OSHA
Petroleum Asphalt	A4	3	No	No
Hydrogen Sulfide	No	No	No	No

A4 = Not Classifiable as Human Carcinogen
3 = Not Classifiable

Ingredients	LD50 Oral (g/kg)	LD50 Dermal (g/kg)	LC50 Inhalation (ppm)
Petroleum Asphalt	Not Available	Not Available	Not Available
Hydrogen Sulfide	Not Available	Not Available	444 (4hr: rat) 634 (1hr: mice)

12. ECOLOGICAL INFORMATION

Asphalt is not toxic to animals, plants, or fish

13. DISPOSAL CONSIDERATIONS

In general asphalt is a non-RCRA hazardous waste. Users must dispose the material in accordance with all applicable federal, state, and local regulations.

14. TRANSPORTATION INFORMATION

Product in solid state is not regulated. The following information is for product shipped as bulk liquid.

DOT Shipping Name:	Elevated temperature, liquid, n.o.s.
Hazard Class:	9
UN No:	UN 3257
Packing Group:	III
Labeling:	9
Hazardous Material Shipping Description:	Elevated temperature, liquid, n.o.s., 9. UN3257, PG III

15. Regulatory Information

SARA Title III:
This product is reportable under SARA Title III, Sections 311 and 312 as hazardous substance.

Hazard Categories:	Acute Health:	Yes
	Chronic Health:	Yes
	Pressure:	No
	Fire:	No
	Reactive:	No

Components listed under 40 CFR 372.65:
This product does not contain a chemical identified as toxic by EPA under 40 CFR Part 372 and is not subject to the reporting requirements of this section.

California Proposition 65:
Warning - This product contains chemicals in trace quantities that are known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA (Toxic Substance Control Act):
Asphalt is listed in the TSCA inventory

16. OTHER INFORMATION

PREPARED BY: Craig Caskey
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