

Material Safety Data Sheet

No: L030 CPC Circulation Oil R32 ~ R150 Ver. 4.0

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: CPC Circulation Oil R32、R46、R68、R100、R150、R78EP
Product Code : LA60341(R32)、LA60342(R46)、LA60343(R68)、LA60390(R100)、LA60393(R150)、 LA60346(R78EP)
Manufacturer Name: Lubricants Business Division, CPC Corporation, Taiwan Address: 6F, 15, Cheng-Kung 2nd RD, Chen-Zerng District, Kaohsiung, 806, Taiwan, R.O.C. Telephone Number: 886-7-5361510
Emergency Telephone Number: 886-5-2224171 Ext. 7250 or 6666 Fax Number: 886-5-2232062

II. HAZARDS IDENTIFICATION

NFPA Ratings (Scale 0-4) : Health=1、Fire=1、Reactivity=0
The Most Important Hazardous Effects : 1. Adverse Human Health Effects : (For Long Term Exposure) Inhalation: no information on significant adverse effects. <ul style="list-style-type: none">• Skin Contact : skin disorders.• Eye Contact : irritation.• Ingestion: no information is available. 2. Environmental Effects: no information is available. 3. Physical and Chemical Hazards: Mist or vapors can produce at elevated temperatures. 4. Specific Hazards: no information on significant adverse effects.
Main Symptoms: <ul style="list-style-type: none">• Inhalation : no information on significant adverse effects.• Skin Contact : skin irritation, skin disorders.• Eye Contact : irritation.• Ingestion : aspiration hazard, digestive disorders.

III. COMPOSITION, INFORMATION ON INGREDIENT

1. Product Identification:

Chemical Family: Petroleum Hydrocarbons

Chemical Formula: Mixture

Trade Name/Synonym: Not assigned

2. Component:

Ingredients CAS Number % by vol.

Heavy Paraffinic Distillate 64742-54-7 > 99%

IV. FIRST AID MEASURE**Emergency Procedures:**

- **Inhalation :**
Remove personnel from exposure area to fresh air immediately. If breathing is difficult, give oxygen. If breathing ceases, use an oxygen rescuer or similar device to perform artificial respiration. Get medical attention immediately.
- **Skin Contact :**
Remove contaminated clothing, jewelry and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15~20 minutes). If irritation or adverse symptoms develop, seek medical attention.
- **Eye Contact :**
Flush eyes immediately with running water for at least fifteen minutes, occasionally lifting upper and lower lids, until no evidence of chemical remains. Get medical attention immediately.
- **Digestion :**
If vomiting occurs, keep head lower than hips to help prevent aspiration. Get medical attention.

Protection of First-aider: no information is available.

Notes to Physician: no information is available.

V. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: regular dry chemical, carbon dioxide, water, regular foam.

Large fires: Use regular foam or flood with fine water spray.

Specific Hazards: Incomplete burning can produce carbon monoxide and/or carbon dioxide and other harmful products.

Special Fire Fighting Procedures:

1. Firefighters should wear proper protective equipment stay upwind.
2. Move container from fire area and shut off source if it can be done without risk.
3. Cool containers with water spray until well after the fire is out.
4. Do not scatter spilled material with high-pressure water streams.
5. Keep unnecessary people away, isolate hazard area and deny entry.

6. Avoid inhalation of material or combustion by-products.

VI. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

1. Avoid heat, flames, sparks and other sources of ignition.
2. Stop leak if possible without personal risk.
3. Reduce vapors with water spray.

Environmental Precautions:

1. Eliminate all open flame in vicinity of spill or released vapor.
2. Stop the source of the leak or release.
3. Clean up releases as soon as possible.
4. Contain liquid to prevent further contamination of soil, surface water or groundwater.

Methods for Cleaning Up:

1. Clean up small spills using sand or other non-combustible material.
2. Collect spilled material in appropriate container for disposal.
3. Where feasible and appropriate, remove contaminated soil.
4. Follow prescribed procedures for reporting and responding to larger releases.

VII. HANDLING AND STORAGE

Handling:

1. Wear protective equipment, if exposure conditions warrant.
2. Wash thoroughly after handling.
3. Use with adequate ventilation.
4. Handle in accordance with all current regulations and standards.

Storage:

1. Keep away from heat, sparks and flames.
2. Store in well-ventilated area.
3. Store in a tightly closed container.
4. Store in a cool, dry place.
5. Bond and ground during transfer.
6. Keep separated from incompatible substances.
7. Storage in accordance with all current regulations and standards.

VIII. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Control:

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.			
Control Parameter:			
HAZARDOUS MATERIAL	TWA	STEL	CEILING
Mineral Oil Mist	ACGIH: 5 mg/m ³ NIOSH: 5 mg/m ³ OSHA : 5 mg/m ³	NIOSH : 10mg/m ³ UK OES : 10mg/m ³	--
Personal Protection Equipment:			
<ul style="list-style-type: none"> • Respiratory Protection: Not generally required unless needed to prevent respiratory irritation. In case of spill or leak resulting in unknown concentration, use NIOSH approved supplied air respirator. • Hand Protection: Wear appropriate chemical resistant gloves. • Eye Protection: Wear splash resistant safety goggles or face shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. • Skin and Body Protection: Wear appropriate chemical resistant clothing. Remove any chemical soaked clothing immediately. 			

IX. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: liquid	Form: yellow or brown viscous liquid
Color: yellow or brown	Odor: no specific irritant odor
PH: Not available	Boiling Range: No data
Decomposition Temperature: No data	Flash Point: 226°C (409°F)(R32) ; 242°C (482°F) (R46) 252°C (456°F)(R68) ; 268°C (514°F) (R100) 280°C (536°F)(R150); 249°C (450°F)(R78EP); Test Method: Open Cup
Autoignition Temperature: No data	Flammable Limits: Not available
Vapor Pressure: Not available	Vapor Density: Not available
Specific Gravity: 0.87~0.891 @ 60°F	Solubility: insoluble in water

X. STABILITY AND REACTIVITY

Stability: Stable at normal temperatures and pressure.

Possible Hazardous Reactions: Will not polymerize.

Conditions to Avoid:

Avoid heat, flames, spark and other sources of ignition. Avoid contact with incompatible material.

Materials to Avoid: strong oxidizing agents.

Hazardous Decomposition Products:

Oxides of carbon and various hydrocarbons formed when burned.

XI. TOXICOLOGICAL INFORMATION

Acute Toxicity:

- **Inhalation:**
Mists or sprays of insoluble oils are not harmful to the respiratory tract, although worker discomfort may occur at oil mist level of 5 mg/m³.
- **Skin Contact:**
May cause hair follicles, comedones, perifollicular papules and pustules. Some individuals may develop a skin sensitivity to petroleum products.
- **Eye Contact:** Found to be moderately irritating to rabbit eyes.
- **Ingestion:**
Mineral oils may cause gastrointestinal disturbance such as diarrhea.

Local Effect: No data available.

Sensitization: No data available.

Chronic Toxicity:

- **Inhalation:**
Repeated or prolonged contact with oils may cause fibrotic nodules, lipid pneumonia, and lipid granuloma.
- **Skin Contact:**
Repeated or prolonged contact may cause defatting of the skin which may result in dermatitis and effect as detailed in acute exposure.
- **Eye Contact:** Repeated or prolonged contact with irritants may cause conjunctivitis.
- **Ingestion:** No data available.

Specific Effects: No data available.

XII. ECOLOGICAL INFORMATION

Environmental Mobility: No data available.

XIII. DISPOSAL CONSIDERATIONS

Subject to disposal regulations:

Dispose in accordance with all applicable regulations.

XIV. TRANSPORT INFORMATION

No classification assigned.

XV. REGULATORY INFORMATION

Suitable Regulations:

1. U.S. Regulations:
TSCA Inventory Status: Y
SARA Hazard Categories, SARA Sections 311/312(40 CFR 370.21):
Acute: N
Chronic: N
Fire: N
Reactive: N
OSHA Process Safety(29 CFR 1910.119): N

2. State Regulations:
California Proposition 65: N

3. European Regulations:
EC Number: Not assigned

XVI. OTHER INFORMATION

Reference Literatures	1. OHS 15037 2. OHS 16115 3. Additive MSDS	
Made By	Lubricants Business Division, CPC Corporation, Taiwan	
	Title: OHS Engineer	Name: Fong-Wu Chen
Creation Date	Mar.11, 2013	

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Material Safety Data Sheet

No : L097 CPC E.P. Lubricant HD 32- 680 Ver. 2.0

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: CPC E.P. Lubricant HD 32, 68, 100, 150, 220, 320, 460, 680

Product Code: LA82032, LA82068, LA82100, LA82150, LA82220, LA82320, LA82460, LA82680

Manufacturer Name: CPC Corporation, Taiwan

Address:

6F, 15, Cheng-Kung 2nd RD, Chen-Zerng District, Kaohsiung, 806, Taiwan, R.O.C.
Telephone Number: 886-7-5361510

Emergency Telephone Number: 886-5-2224171 Ext. 5555, 3250

Fax Number: 886-5-2232062

II. COMPOSITION, INFORMATION ON INGREDIENT

1. Product Identification:

Chemical Family: Petroleum Hydrocarbons

Chemical Formula: Mixture

Trade Name/Synonym: Not assigned

2. Component:

Ingredients	CAS Number	% by vol.
Anti-Extreme Pressure Additive	Not assigned	< 10
Heavy Paraffinic Distillate	64742-54-7	< 100

III. HAZARDS IDENTIFICATION

The Most Important Hazardous Effects:

1. Adverse Human Health Effects:

(For Long Term Exposure)

- Eye Contact : irritation.
- Skin Contact : skin disorders.
- Inhalation : If heated this substance ,over-inhalation may cause headache, dizziness, nausea ,vomiting, coughing, pain in the nose, throat and chest.
- Ingestion : no information is available .

2. Environmental Effects: no information is available.

3. Physical and Chemical Hazards: Mist or vapors can produce at elevated temperatures.

4. Specific Hazards: no information on significant adverse effects.

Main Symptoms:

3. Reduce vapors with water spray.

Environmental Precautions:

1. Eliminate all open flame in vicinity of spill or released vapor.
2. Stop the source of the leak or release.
3. Clean up releases as soon as possible.
4. Contain liquid to prevent further contamination of soil, surface water or groundwater.

Methods for Cleaning Up:

1. Clean up small spills using sand or other non-combustible material.
2. Collect spilled material in appropriate container for disposal.
3. Where feasible and appropriate, remove contaminated soil.
4. Follow prescribed procedures for reporting and responding to larger releases.

VII. HANDLING AND STORAGE

Handling:

1. Wear protective equipment, if exposure conditions warrant.
2. Wash thoroughly after handling.
3. Use with adequate ventilation.
4. Handle in accordance with all current regulations and standards.

Storage:

1. Keep away from heat, sparks and flames.
2. Store in well-ventilated area.
3. Store in a tightly closed container.
4. Store in a cool, dry place.
5. Bond and ground during transfer.
6. Keep separated from incompatible substances.
7. Storage in accordance with all current regulations and standards.

VIII. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Control:

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

Control Parameter:

HAZARDOUS MATERIAL	TWA	STEL	CEILING
Mineral Oil Mist	ACGIH: 5 mg/m ³ NIOSH: 5 mg/m ³ OSHA : 5 mg/m ³	NIOSH : 10mg/m ³ UK OES : 10mg/m ³	--

Personal Protection Equipment:

- Respiratory Protection:
Not generally required unless needed to prevent respiratory irritation. In case of spill or leak resulting in unknown concentration, use NOISH approved supplied air respirator.
- Hand Protection:
Wear appropriate chemical resistant gloves.

- Eye Contact : irritation.
- Skin Contact : May cause irritation with erythema ,blistering.
- Inhalation : If heated this substance ,over-inhalation may cause headache, dizziness, nausea ,vomiting, coughing, pain in the nose, throat and chest.
- Ingestion :aspiration irritation, digestive disorders.

NFPA Ratings (Scale 0-4): NFPA Fire=1

IV. FIRST AID MEASURE

Emergency Procedures:

- Inhalation :
Remove personnel from exposure area to fresh air immediately. If breathing is difficult, give oxygen. If breathing ceases, use a oxygen rescuer or similar device to perform artificial respiration. Get medical attention immediately.
- Skin Contact :
Remove contaminated clothing, jewelry and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15~20 minutes). If irritation or adverse symptoms develop, seek medical attention.
- Eye Contact :
Flush eyes immediately with running water for at least fifteen minutes, occasionally lifting upper and lower lids, until no evidence of chemical remains. Get medical attention immediately.
- Digestion :
If swallowed,give water or milk to drink . Get medical attention immediately.

Protection of First-aiders: no information is available.

Notes to Physician: no information is available.

V. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: regular dry chemical, carbon dioxide, water, regular Foam.
Large fires: Use regular foam or flood with fine water spray.

Specific Hazards: combustion conditions, oxides of the following elements will formed: carbon dioxide, water,sulfur,nitric oxide.Incomplete burning can produce carbon monoxide and other harmful products.

Special Fire Fighting Procedures:

1. Firefighters should wear proper protective equipment stay upwind.
2. Move container from fire area and shut off source if it can be done without risk.
3. Cool containers with water spray until well after the fire is out.
4. Do not scatter spilled material with high-pressure water streams.
5. Keep unnecessary people away, isolate hazard area and deny entry.
6. Avoid inhalation of material or combustion by-products.

VI. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

1. Avoid heat, flames, sparks and other sources of ignition.
2. Stop leak if possible without personal risk.

- Eye Protection:
Wear splash resistant safety goggles or face shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.
- Skin and Body Protection:
Wear appropriate chemical resistant clothing. Remove any chemical soaked clothing immediately.

IX. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: liquid	Form: liquid
Color: deep brown	Odor: no special order
PH : Not available	Boiling Range: No data
Specific Gravity: 0.874g/cm ³ @ 60°F (32) 0.8844g/cm ³ @ 60°F (68) 0.8875g/cm ³ @ 60°F (100) 0.8915g/cm ³ @ 60°F (150) 0.895g/cm ³ @ 60°F (220) 0.8985g/cm ³ @ 60°F (320) 0.902g/cm ³ @ 60°F (460) 0.907g/cm ³ @ 60°F (680)	Flash Point: 202 °C (396°F) (32) 229 °C (444°F) (68) 232 °C (450°F) (100) 238 °C (460°F) (150) 241 °C (466°F) (220) 246 °C (475°F) (320) 249 °C (480°F) (460) 254 °C (490°F) (680) Test Method: Open Cup
Autoignition Temperature: No data	Flammable Limits: Not available
Vapor Pressure: Not available	Vapor Density: Not available
Decomposition Temperature: No data	Solubility: insoluble in water

X. STABILITY AND REACTIVITY

Stability: Stable at normal temperatures and pressure.
Possible Hazardous Reactions: Will not polymerize.
Conditions to Avoid: Avoid heat, flames, spark and other sources of ignition. Avoid contact with incompatible material.
Materials to Avoid: acid, strong oxidizing agents.
Hazardous Decomposition Products: oxides of carbon , various hydrocarbons and sulfide formed when burned.

XI. TOXICOLOGICAL INFORMATION

Acute Toxicity: <ul style="list-style-type: none"> • Inhalation: Paraffinic distillate :Mists or sprays of insoluble oils are not harmful to the respiratory tract, although worker discomfort may occur at oil mist level of 5 mg/m³. Anti-extreme pressure additive :inhalation of oil mist or vapors may cause respiration irritation. • Skin Contact:
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Paraffinic distillate :May cause hair follicles, comedones, perifollicular papules and pustules. Some individuals may develop a skin sensitivity to petroleum products.

Anti-extreme pressure additive :irritate to skin .

- Eye Contact:

Paraffinic distillate :Found to be moderately irritating to eyes.

Anti-extreme pressure additive :irritate to eyes.

- Ingestion:

Paraffinic distillate :Mineral oils may cause gastrointestinal disturbance such as diarrhea. Anti-extreme pressure additive :No data available.

Local Effect: No data available.

Sensitization: No data available.

Chronic Toxicity: Paraffinic distillate :

- Inhalation:

Repeated or prolonged contact with oils may cause fibrotic nodules, lipoid pneumonia, and lipid granuloma.

- Skin Contact:

Repeated or prolonged contact may cause defatting of the skin which may result in dermatitis and effect as detailed in acute exposure.

- Eye Contact: Repeated or prolonged contact with irritants may cause conjunctivitis.

- Ingestion: No data available.

Specific Effects: No data available.

XII. ECOLOGICAL INFORMATION

Environmental Mobility: No data available.

XIII. DISPOSAL CONSIDERATIONS

Subject to disposal regulations:

Dispose in accordance with all applicable regulations.

XIV. TRANSPORT INFORMATION

No classification assigned.

XV. REGULATORY INFORMATION

Suitable Regulations:

1. U.S. Regulations:

TSCA Inventory Status: Y

SARA Hazard Categories, SARA Sections 311/312(40 CFR 370.21):

Acute: N

Chronic: N

Fire: N

Reactive: N

OSHA Process Safety(29 CFR 1910.119): N

2. State Regulations:
California Proposition 65: N

3. European Regulations:
EC Number: Not assigned

XVI. OTHER INFORMATION

Reference Literatures	1.OHS 15037 2.OHS 50243	
Made By	CPC Corporation, Taiwan Refining & Manufacturing Research Center	
	Title: Chemical Engineer Project Manager	Name: Wen-Hen Lo Chun-Huei Lai
Creation Date	March 16, 2007	

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