



1. Identification of the substance/preparation and company/undertaking

Product name	Energol WRP
SDS no.	401901
Use of the substance/preparation	Corrosion preventative. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
Supplier	Castrol BP Petco Limited Liability Company 4th Floor, Sun Wah Tower, 115 Nguyen Hue Boulevard, Dist.1, HCM City Vietnam Tel : 84-8-8219153 Fax : 84-8-8219152
EMERGENCY TELEPHONE NUMBER	Carechem: +65 3158 1074 (24 hours)

2. Composition/information on ingredients

Highly refined base oil (IP 346 DMSO extract < 3%). Proprietary performance additives.

Chemical name	Concentration	CAS no.
Low boiling point hydrogen treated naphtha (white spirit)	20 - 50	64742-82-1
Stoddard solvent	1 - 5	8052-41-3
Calcium sulphonate	1 - 5	61789-86-4

Occupational exposure limits, if available, are listed in section 8.

3. Hazards identification

This preparation is classified as dangerous.

Physical/chemical hazards	Flammable.
Health hazards	May cause sensitisation by skin contact. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.
Additional hazards	Not available.
Effects and symptoms	
Eyes	Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.
Skin	Slightly irritating to the skin. May cause severe allergic skin reaction
Inhalation	Harmful if inhaled.
Ingestion	Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhoea.

4. First-aid measures

Eye contact	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin contact	Immediately wash exposed skin with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If potentially dangerous quantities of this material have been swallowed, call a physician immediately.
Notes to physician	Treatment should in general be symptomatic and directed to relieving any effects.

5. Fire-fighting measures

Extinguishing media	
Suitable	In case of fire, use water fog, foam, dry chemical or carbon dioxide extinguisher or spray.
Not suitable	Do not use water jet.
Hazardous decomposition products	Combustion products may include the following: carbon oxides sulfur oxides metal oxide/oxides

Unusual fire/explosion hazards	None identified.
Special fire-fighting procedures	DO NOT FIGHT FIRE WHEN IT REACHES MATERIAL. Withdraw from fire and let it burn. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. First move people out of line-of-sight of the scene and away from windows.
Protection of fire-fighters	Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

6 . Accidental release measures

Personal precautions	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
Environmental precautions	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
Large spill	Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.
Small spill	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

7 . Handling and storage

Handling	Avoid contact with skin and clothing. Do not get on skin or clothing. Use only with adequate ventilation. Do not breathe vapour or mist. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Avoid contact of spilt material and runoff with soil and surface waterways. Wash thoroughly after handling.
Storage	Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

8 . Exposure controls/personal protection

Ingredient name	Occupational exposure limits
Low boiling point hydrogen treated naphtha (white spirit)	ACGIH (United States). TWA: 100 ppm 8 hour(s).
Stoddard solvent	Ministry of Health (Viet Nam, 10/2002). TWA: 525 mg/m³ 8 hour(s).
Base oil - unspecified	ACGIH (United States). TWA: 5 mg/m³ 8 hour(s). Form: Oil mist, mineral STEL: 10 mg/m³ 15 minute(s). Form: Oil mist, mineral
Refined paraffin wax	Ministry of Health (Viet Nam, 10/2002). STEL: 6 mg/m³ 15 minute(s). TWA: 1 mg/m³ 8 hour(s).

For information and guidance, the ACGIH values are included. For further information on these please consult your supplier.

Whilst specific OELs for certain components may be shown in this section, other components may be present in any mist, vapour or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

Exposure controls

Occupational exposure controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits.
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Personal protective equipment

Respiratory system	Use with adequate ventilation. Do not breathe vapour or mist.
Skin and body	Do not get on skin or clothing. Wear suitable protective clothing.

Hands

Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Eyes

Safety glasses with side shields.

9 . Physical and chemical properties

Physical state	Liquid.
Odour	Oily.
Flash point	Closed cup: 53°C (127.4°F) [Pensky-Martens.]
Melting point / range	>90°C (>194°F)
Density	875 kg/m ³ (0.875 g/cm ³) at 15°C
Partition coefficient (LogKow)	>3

10 . Stability and reactivity

Stability	The product is stable. Under normal conditions of storage and use, hazardous polymerisation will not occur.
Conditions to avoid	Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Avoid release to the environment. Refer to special instructions/safety data sheet.
Materials to avoid	Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides metal oxide/oxides Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 . Toxicological information

Acute toxicity	Unlikely to cause more than transient stinging or redness if accidental eye contact occurs. Unlikely to cause harm to the skin on brief or occasional contact but prolonged or repeated exposure may lead to dermatitis. Product not classified for sensitisation. Based on data available for this or related materials. Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhoea. At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility. May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs. Based on data available for this or related materials.
Chronic toxicity	
Carcinogenic effects	No known significant effects or critical hazards.

12 . Ecological information



Persistence/degradability	The biodegradability of this material has not been determined.
Bioaccumulative potential	This product is not expected to bioaccumulate through food chains in the environment.

13 . Disposal considerations

Disposal considerations / Waste information	The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
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14 . Transport information

International transport regulations

Regulatory information	UN number	Proper shipping name	Class	PG*	Label	Additional information
IMDG Classification	1993	Flammable liquid, n.o.s. Turpentine substitute (Low boiling point hydrogen treated naphtha (white spirit)). Marine pollutant	3	III		Marine pollutant
IATA/ICAO Classification	1993	Flammable liquid, n.o.s. Turpentine substitute	3	III		-

PG* : Packing group

15 . Regulatory information

European Union - Label requirements

Hazard symbol or symbols



Irritant

Indication of danger

Risk phrases

R10- Flammable.
R43- May cause sensitisation by skin contact.
R66- Repeated exposure may cause skin dryness or cracking.
R67- Vapours may cause drowsiness and dizziness.
This product is classified as dangerous under applicable regulations.

Safety phrases

S24- Avoid contact with skin.
S37- Wear suitable gloves.

Contains

Calcium sulphonate

Other regulations

Inventories

Europe inventory: All components are listed or exempted.
United States inventory (TSCA 8b): Not determined.
Australia inventory (AICS): Not determined.
Canada inventory: Not determined.
China inventory (IECSC): Not determined.
Japan inventory (ENCS): Not determined.
Korea inventory (KECI): Not determined.
Philippines inventory (PICCS): Not determined.

Vietnam

Toxic classification (TCVN 3164-79)

Not classified as hazardous.

16 . Other information

History

Date of issue

2 April 2008

Date of previous issue

No previous validation

Prepared by

Product Stewardship

Notice to reader

Indicates information that has changed from previously issued version.

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from us.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken.

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