

# SAFETY DATA SHEET



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

<b>Product name</b>	<b>Energol JS-A</b>
<b>SDS no.</b>	401805
<b>Use of the substance/mixture</b>	Transformer fluid. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
<b>Supplier</b>	Castrol India Ltd., Technopolis Knowledge Park Office, P. O. Box No. 19411 Mahakali Caves Road Chakala, Andheri (E) Mumbai - 400 093 India
	Telephone Number: +91 22 6698 4100 Fax Number: +91 22 66984543
<b>EMERGENCY TELEPHONE NUMBER</b>	Toll free: 000800 100 7479 (for use in India only - 24 hours) Carechem Singapore: +65 3158 1198 (24 hours)
<b>E-mail address</b>	MSDSadvice@bp.com

## 2 . Hazards identification

This substance is not classified as dangerous according to Directive 67/548/EEC as amended and adapted.

### Additional hazards

#### USED OILS FROM TRANSFORMERS AND SWITCHGEAR:

Because polychlorinated biphenyls (PCBs) were often used in older transformers and switchgear equipment, there is a possibility that oil drained from older equipment may have become contaminated with PCB.

See sections 11 and 12 for more detailed information on health effects and symptoms and environmental hazards.

## 3 . Composition/information on ingredients

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

<b>Chemical name</b>	<b>CAS no.</b>	<b>%</b>	<b>EINECS / ELINCS.</b>	<b>Classification</b>	
Base oil - unspecified	64742-53-6	50 - 100	265-156-6	Not classified.	[*]

See Section 16 for the full text of the R-phrases declared above.

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] PBT-substance

[4] vPvB-substance

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

## 4 . First-aid measures

### Eye contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention if irritation occurs.

### Skin contact

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.

### Inhalation

If inhaled, remove to fresh air. Get medical attention if symptoms appear.

### Ingestion

Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

### Notes to physician

Treatment should in general be symptomatic and directed to relieving any effects.

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## 5 . Fire-fighting measures

### Extinguishing media

#### Suitable

In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.

#### Not suitable

Do not use water jet.

### Hazardous decomposition products

Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide

### Unusual fire/explosion hazards

In a fire or if heated, a pressure increase will occur and the container may burst.

### Special fire-fighting procedures

No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.

### Protection of fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

## 6 . Accidental release measures

### Personal precautions - For non-emergency personnel

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. Floors may be slippery; use care to avoid falling. Put on appropriate personal protective equipment.

### Personal precautions - For emergency responders

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 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).

### Large spill

Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. 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. Dispose of via a licensed waste disposal contractor.

### Small spill

Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

### Reference to other sections

See Section 1 for emergency contact information.

See Section 5 for firefighting measures.

See Section 8 for information on appropriate personal protective equipment.

See Section 12 for environmental precautions.

See Section 13 for additional waste treatment information.

## 7 . Handling and storage

### Handling - Protective measures

Put on appropriate personal protective equipment.

### Handling - Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### Storage

Store and use only in equipment/containers designed for use with this product. Keep away from heat and direct sunlight. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10).

### Not suitable

Prolonged exposure to elevated temperature

## 8 . Exposure controls/personal protection

### Ingredient name

Base oil - unspecified

### Occupational exposure limits

#### ACGIH TLV (United States).

TWA: 5 mg/m<sup>3</sup> 8 hours. Issued/Revised: 11/2009 Form: Inhalable fraction

### ACGIH TLVs

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.

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.

The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

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<b>Hygiene measures</b>	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. Ensure that eyewash stations and safety showers are close to the workstation location.
<b>Personal protective equipment</b>	
<b>Respiratory protection</b>	Respiratory protective equipment is not normally required where there is adequate natural or local exhaust ventilation to control exposure. In case of insufficient ventilation, wear suitable respiratory equipment. The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.
<b>Hand protection</b>	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.
<b>Eye protection</b>	Safety glasses with side shields.
<b>Skin and body</b>	Use of protective clothing is good industrial practice. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.



## 9 . Physical and chemical properties

### General information

#### Appearance

**Physical state** Liquid.

**Colour** Clear

**Odour** Oily.

### Important health, safety and environmental information

**Flash point** Closed cup: >130°C (>266°F)

**Auto-ignition temperature** >250°C (>482°F)

**Explosion limits** Lower: 0.6%  
Upper: 10%

**Viscosity** Kinematic: 16 mm<sup>2</sup>/s (16 cSt) at 40°C

**Boiling point / range** >250°C (>482°F)

**Pour point** <-30 °C

**Density** 883 kg/m<sup>3</sup> (0.883 g/cm<sup>3</sup>) at 15°C

**Solubility** insoluble in water.

**Partition coefficient (LogKow)** >3

## 10 . Stability and reactivity

#### **Stability**

The product is stable.

#### **Possibility of hazardous reactions**

Under normal conditions of storage and use, hazardous polymerisation will not occur.  
Under normal conditions of storage and use, hazardous reactions will not occur.

#### **Conditions to avoid**

Avoid all possible sources of ignition (spark or flame).

#### **Materials to avoid**

Reactive or incompatible with the following materials: oxidising materials.

#### **Hazardous decomposition products**

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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## 11 . Toxicological information

### Acute toxicity

### Effects and symptoms

Eyes	Potential risk of transient stinging or redness if accidental eye contact occurs.
Skin	Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.
Inhalation	May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs.
Ingestion	Ingestion of large quantities may cause nausea and diarrhoea.

## 12 . Ecological information

### Persistence/degradability

Inherently biodegradable

### Mobility

Spillages may penetrate the soil causing ground water contamination.

### Bioaccumulative potential

This product is not expected to bioaccumulate through food chains in the environment.

### Environmental hazards

Not classified as dangerous.

### Other ecological information

Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

## 13 . Disposal considerations

### Disposal considerations /

### Waste information

The generation of waste should be avoided or minimised wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

### Special precautions

#### USED OILS FROM TRANSFORMERS AND SWITCHGEAR:

Used oil contaminated with PCBs requires expert handling and disposal to avoid serious pollution. If it is suspected that oil is contaminated with PCBs it should be kept separate from, and never mixed with other waste oils. Contact the Local Authority for disposal advice.

### Other information

At sea, used or unwanted product should be stored for eventual discharge into port approved waste oil disposal facilities.

### Unused product

Waste code	Waste designation
13 03 07*	mineral-based non-chlorinated insulating and heat transmission oils

However, deviation from the intended use and/or the presence of any potential contaminants may require an alternative waste disposal code to be assigned by the end user.

## 14 . Transport information

Not classified as hazardous for transport (ADR/RID, ADNR, IMDG, ICAO/IATA)

## 15 . Regulatory information

### Label requirements

### Risk phrases

This product is not classified according to EU legislation.

### Additional warning phrases

Safety data sheet available on request.

### Other regulations

#### REACH Status

The company, as identified in Section 1, sells this product in the EU in compliance with the current requirements of REACH.

#### United States inventory (TSCA 8b)

All components are listed or exempted.

#### Australia inventory (AICS)

All components are listed or exempted.

#### Canada inventory

All components are listed or exempted.

#### China inventory (IECSC)

All components are listed or exempted.

#### Japan inventory (ENCS)

All components are listed or exempted.

#### Korea inventory (KECI)

All components are listed or exempted.

#### Philippines inventory (PICCS)

All components are listed or exempted.

## 16 . Other information

### History

**Date of issue/ Date of revision** 20/06/2012.

**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 BP Group.

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. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.

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