

Base oil

1. Identification of Substance / Preparation and Company

Identification of substance/ preparation

base oil (Energol CS 15 / Energol CS 32)

Application

Non-additive lubricant for circulatory systems

Supplier: PAC GmbH

Address:

P.O. Box: 1241

97912 Lauda- Königshofen

Germany

Tel: (+49) 93 43 640-100

Fax: (+49) 93 43 640-101

Product Identification:

Part Number	Product name	Lot No	Type
0100-292-51	CRM Flash Point COC	1006	
0100-292-51	CRM Flash Point COC	1010	
0100-292-51	CRM Flash Point COC	1021	
0100-292-51	CRM Flash Point COC	1029	
0100-329-53	CRM Flash Point PM	1006	
0100-329-53	CRM Flash Point PM	1013	
0100-329-53	CRM Flash Point PM	1026	
0100-329-53	CRM Flash Point PM	1034	
0100-852-51	CRM Pour Point	1009	
0100-852-51	CRM Pour Point	1023	
0100-852-51	CRM Pour Point	1031	
0100-852-52	CRM Pour Point	1014	
0100-852-52	CRM Pour Point	1024	CS 15
0100-852-52	CRM Pour Point	1032	CS 15
0100-829-53	CRM Flash Point PM	1034	CS 32

2. Composition / Information on Ingredients

Chemical Description:

Highly refined mineral oil (IP 346 DMSO extract > 3%)

Hazardous Components:

No component is present at sufficient concentration to require a hazardous classification.

3. Hazards Identification

This material is not considered to be hazardous, but should be handled in accordance with good industrial hygiene and safety practices.

CAS:

For Energol CS 15 the main compound is a highly refined mineral oil (CAS 64741-89-5) 80-100%

For Energol CS 32 the main compound is a highly refined mineral oil (CAS 64741-88-4) 80-100%

4. First Aid Measures

Eyes

Wash eye thoroughly with copious quantities of water, ensuring eyelids are held open. Obtain medical advice if any pain or redness develops or persists.

Skin

Wash skin thoroughly with soap and water as soon as reasonably practicable. Remove heavily contaminated clothing and wash underlying skin.

Ingestion:

If contamination of the mouth occurs, wash out thoroughly with water. Except as a deliberate act, the ingestion of large amounts of product is unlikely. If it should occur, do not induce vomiting; obtain medical advice.

Inhalation

If inhalation of mists, fumes or vapour causes irritation to the nose or throat, or coughing, remove to fresh air. If symptoms persist obtain medical advice.

Medical Advice

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

5. Fire Fighting Measures

use foam, dry powder or water fog. DO NOT USE water jets. Fires in confined spaces should be dealt with by trained personnel wearing approved breathing apparatus. Water may be used to cool nearby heat exposed areas/objects/packages. Avoid spaying directly into storage containers because of the danger of boil-over.

Combustion Products

Toxic fumes may be evolved on burning or exposure to heat. See Stability and Reactivity, Section 10 of this Safety Data Sheet.

6. Accidental Release Measures

Contain and recover spilled material using sand or other suitable inert absorbent material. It is advised that stocks of suitable absorbent material should be held in quantities sufficient to deal with any spillage which may be reasonably anticipated. Spilled material may make surfaces slippery. Protect drains from potential spills to minimise contamination. Do not wash product into drainage system. In the case of large spills contact the

Base oil

appropriate authorities. If spillage occurs call the Environment Agency Emergency Hotline on 0800 807060 (24 hours a day, 7 days a week). In the case of spillage on water, prevent the spread of product by the use of suitable barrier equipment. Recover product from the surface. Protect environmentally sensitive areas and water supplies.

7. Handling and Storage

Handling Precautions

Avoid contact with eyes. If splashing is likely to occur wear a full face visor or chemical goggles as appropriate. Avoid frequent or prolonged skin contact with fresh or used product. Good working practices, high standards of personal hygiene and plant cleanliness must be maintained at all times. Wash hands thoroughly after contact. Use disposable cloths and discard when soiled. Do not put soiled cloths into pockets.

Fire Prevention

Product contaminated rags, paper or material used to absorb spillages, represent a fire hazard, and should not be allowed to accumulate. Dispose of safely immediately after use.

Storage:

Store under cover away from heat and sources of ignition.

8. Exposure Controls / Personal Protection

Exposure Limits

There is no appropriate occupational exposure limit for this material. Ensure good ventilation. Avoid, as far as reasonably practicable, inhalation of vapour, mists or fumes generated during use. If vapour, mists or fumes are generated, their concentration in the workplace air should be controlled to the lowest reasonably practicable level.

Protective Clothing

Wear face visor or goggles in circumstances where eye contact can accidentally occur. If skin contact is likely, wear impervious protective clothing and/or gloves. Protective clothing should be regularly dry cleaned.

Change heavily contaminated clothing as soon as reasonably practicable: dry clean, launder and preferably starch before re-use. Wash any contaminated underlying skin with soap and water.

Respiratory Protection

Respiratory protection is unnecessary, provided the concentration of vapour, mists or fumes is adequately controlled. The use of respiratory equipment must be strictly in accordance with the manufacturers' instructions and any statutory requirements governing its selection and use.

9. Physical and Chemical Properties

Typical Values

Grades:	Grade 32 / Grade 10		
	Test Method	Units	
Physical state			liquid
Colour			Grade 32: amber / Grade 10 : light amber
Odour			mild
Density @ 15°C	ASTM D 1298	kg/m ³	Grade 32: 874 / Grade 10 : 875
Kinematic viscosity 40°C	@ASTM D 445	mm ² /s	Grade 32: 30 / Grade 10 : >9,0
Kinematic viscosity 100°C	@ASTM D 445	mm ² /s	Grade 32: 5,1 / Grade 10 : 2,5
Flash point (COC)	ASTM D 92	°C	Grade 32: 204 / Grade 10 : 150
Pour point		°C	Grade 32: -12 / Grade 10 : -24

10. Stability and Reactivity

Products of this type are stable and unlikely to react in a hazardous manner under normal conditions of use. Hazardous polymerisation reactions will not occur. This material is combustible.

Materials to avoid:

Avoid contact with strong oxidizing agents.

Hazardous Decomposition products:

Thermal decomposition products will vary with conditions. Incomplete combustion will generate smoke, carbon dioxide and hazardous gases, including carbon monoxide.

11. Toxicological Information

Eyes

Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.

Base oil

Skin

Unlikely to cause harm to the skin on brief or occasional contact but prolonged or repeated exposure may lead to dermatitis.

Ingestion

Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhoea.

Inhalation

At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility. May cause irritation to eyes, nose and throat due to exposure to vapour, mists or fumes resulting from thermal decomposition products occurs.

12. Ecological information

Mobility:

Spillages may penetrate the soil causing ground water contamination.

Persistence and degradability

This product is inherently biodegradable.

Bioaccumulative potential

There is no evidence to suggest bioaccumulation will occur.

Aquatic toxicity

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

13. Disposal Considerations

Where possible, arrange for product to be recycled. Dispose of via an authorised person / licensed waste disposal contractor in accordance with local regulations. Incineration may be carried out under controlled conditions provided that local regulations for emissions are met.

14. Transport Information

Not classified as hazardous for transport (ADR, RID, UN, IMO, IATA/ICAO).

15. Regulatory Information

Not classified as hazardous for supply. No Statutory label required.

16. Other Information

Compiled by:

Product Stewardship Group
BP Oil Technology Centre
Chertsey Road
Sunbury – on – Thames
Middlesex, TW16 7LN

This data sheet and the health, safety and environmental information it contains is considered to be accurate as of the data specified below. We have reviewed any information contained herein which we received from sources outside the BP Amoco Group of Companies. However, no warranty or representation, express or implied is made as to the accuracy or completeness of the data and information contained in this data sheet.

Health and safety precautions and environmental advice noted in this data sheet may not be accurate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission, recommendation or authorization given or implied to practise any patented invention without a valid licence. The BP Amoco Group shall not be responsible for any damage or injury resulting from abnormal use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material.

Source of material and present safety data sheet

BP Lubricants & Special Products Ltd., Witan Gate House, 500-600 Witan Gate, Central Milton Keynes, MK9 1ES

Emergency telephone number: +44(0)1908 853000

SDS source Identification: Energol CS 32: GLIS No: 401666, Material Name: Energol CS 32, Issue Date:

10.10.2000, 06.09.2001. Energol CS 10: GLIS No: 401660, Material Name: Energol CS 10, Issue Date:

14.02.00, 06.09.2001