



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

Product name	Schiehallion Crude Oil
SDS #	SEP2206
Product use	Refinery feedstock For specific application advice see appropriate Technical Data Sheet or consult our company representative.
Supplier	BP Exploration Europe Farburn Industrial Estate Dyce Aberdeen AB2 0PB
EMERGENCY TELEPHONE NUMBER	(44) 01224 832000 Extn 4466 (Occupational Hygiene Co-ord.)

2. Composition/information on ingredients

Crude oil: complex hydrocarbon mixture comprising mainly of aliphatic, naphthenic and aromatic hydrocarbons. It may also contain gases, sulfur and nitrogen compounds.

Chemical name	CAS no.	%	EINECS / ELINCS	Classification
Crude oil	8002-05-9	50 - 100	232-298-5	F; R11 Carc. Cat. 2; R45 R66, 67 R52/53

See section 16 for the full text of the R Phrases declared above
Occupational Exposure Limit(s), if available, are listed in Section 8

3. Hazards identification

This substance is classified as dangerous according to Directive 67/548/EEC as amended and adapted.

Physical/chemical hazards	Highly flammable.
Human health hazards	May cause cancer. Contains Benzene. Prolonged or repeated exposure to benzene can cause anaemia and other blood diseases, including leukaemia. This material may contain significant quantities of polycyclic aromatic hydrocarbons (PCAs), some of which have been shown by experimental studies to induce skin cancer. Vapours may cause drowsiness and dizziness. Repeated exposure may cause skin dryness or cracking.
Environmental hazards	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Effects and symptoms	
Eyes	No significant health hazards identified.
Skin	Contains material which can cause cancer.
Inhalation	Contains material which can cause cancer.
Ingestion	No significant health hazards identified.

4. First aid measures

Eye Contact	In case of contact, immediately flush eyes with a copious amount of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin contact	Wash skin thoroughly with soap and water as soon as reasonably practicable. Remove heavily contaminated clothing and wash underlying skin.

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Inhalation

If exposure to vapour, mists or fumes causes drowsiness, headache, blurred vision or irritation of the eyes, nose or throat, remove immediately to fresh air. Keep patient warm and at rest. If any symptoms persist obtain medical advice.

EXPOSURE TO HYDROGEN SULPHIDE:

Casualties suffering ill effects as a result of exposure to hydrogen sulphide should be immediately removed to fresh air and medical assistance obtained without delay. Unconscious casualties must be placed in the recovery position. Monitor breathing and pulse rate and if breathing has failed, or is deemed inadequate, respiration must be assisted, preferably by the mouth to mouth method. Administer external cardiac massage if necessary. Seek medical attention immediately.

Ingestion

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.

Notes to physician

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

Inhalation of hydrogen sulphide may cause central respiratory depression leading to coma and death. It is irritant to the respiratory tract causing chemical pneumonitis and pulmonary oedema. The onset of pulmonary oedema may be delayed for 24 to 48 hours. Treat with oxygen and ventilate as appropriate. Administer broncho-dilators if indicated and consider administration of corticosteroids. Keep casualty under surveillance for 48 hours in case pulmonary oedema develops.

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

These products are carbon oxides (CO, CO₂), sulphur oxides (SO₂, SO₃, etc.).

Unusual fire/explosion Hazards

Highly flammable liquid and vapour. Vapour may cause flash fire. Vapours may accumulate in low or confined areas, travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

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 self-contained positive pressure breathing apparatus (SCBA) and full turnout gear.

6. Accidental release measures

Personal Precautions

Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment (See Section: "Exposure controls/personal protection"). Follow all fire fighting procedures (See Section: "Fire-fighting measures"). Do not touch or walk through spilled material.

Environmental precautions and clean-up methods

If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion proof means to transfer material to a sealed, appropriate container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Minimize contact of spilled material with soils to prevent runoff to surface waterways. See Section 13 for Waste Disposal Information.

Personal protection in case of a large spill

Splash goggles. Full suit. Boots. Gloves.

7. Handling and storage

Handling

Avoid breathing vapours or spray mists. Use only with adequate ventilation. 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 spilled material and runoff with soil and surface waterways. Wash thoroughly after handling. Never siphon by mouth. When using do not eat, drink or smoke.

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). Store and use only in equipment/containers designed for use with this product. Do not remove warning labels from containers.

Do not enter storage tanks without breathing apparatus unless the tank has been well ventilated and the tank atmosphere has been shown to contain hydrocarbon vapour concentrations of less than 1% of the lower flammability limit and an oxygen concentration of at least 20% volume. Always have sufficient people standing by outside the tank with appropriate breathing apparatus and equipment to effect a quick rescue.

Light hydrocarbon vapours can build up in the headspace of tanks. These can cause flammability/explosion hazards even at temperatures below the normal flash point (note: flash point must not be regarded as a reliable indicator of the potential flammability of vapour in tank headspaces). Tank headspaces should always be regarded as potentially flammable and care should be taken to avoid static electrical discharge and all ignition sources during filling, ullaging and sampling from storage tanks.

This material can contain hydrogen sulphide (H₂S), an extremely toxic and flammable gas. Vapours containing hydrogen sulphide may accumulate during storage or transport and may also be vented during filling of tanks. Hydrogen sulphide has a typical "bad egg" smell but at high concentrations the sense of smell is rapidly lost, therefore do not rely on sense of smell for detecting hydrogen sulphide. Use specially designed measuring instruments for determining its concentration.

8. Exposure controls/personal protection

Ingredient name

Hydrogen sulphide

Occupational exposure limits

EH40-OES (United Kingdom (UK), 1/2003).

STEL: 14 mg/m³ 15 minute(s)

STEL: 10 ppm 15 minute(s)

TWA: 7 mg/m³ 8 hour(s)

TWA: 5 ppm 8 hour(s).

Benzene

EH40-MEL (United Kingdom (UK), 1/2003). Skin

TWA: 1 ppm 8 hour(s).

Control Measures

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location.

All chemicals should be assessed for their risks to health and appropriate control measures put in place to prevent or adequately control exposure. A hierarchy of control measures exists (e.g. elimination, substitution, general ventilation, containment, systems of work, changing the process or activity) that must be considered before use of personal protective equipment. 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. Relevant information can be obtained from the European Committee for Standardization <http://www.cenorm.be/cenorm/index.htm>.

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.

Hygiene measures

Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day.

Personal protective equipment

Respiratory system

Ensure good ventilation.

In case of insufficient ventilation, wear suitable respiratory equipment.

Approved air-supplied breathing apparatus must be worn where there is a risk of inhaling hydrogen sulphide gas and / or there is a risk of oxygen deficiency (i.e. low oxygen concentration). Personal gas monitors may also provide early warning of hydrogen sulphide.

Approved air-supplied breathing apparatus must be worn where there is a risk of exceeding the exposure limit of benzene.

Provided an air-filtering/air-purifying respirator is suitable, a combination filter for particles, organic gases and vapours (boiling point >65°C) can be used. Use filter type AP or comparable standard.

Respiratory protective equipment must be checked to ensure it fits and functions correctly each time it is worn.

Air-filtering respirators, also called air-purifying respirators, will not be adequate under conditions of oxygen deficiency (i.e. low oxygen concentration), and would not be considered suitable where airborne concentrations of chemicals with a significant hazard are present. In these cases air-supplied breathing apparatus will be required.

Skin and body

Avoid contact with skin.

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.

Hands	Wear chemical resistant gloves. Recommended: nitrile gloves
	Protective gloves will deteriorate over time due to physical and chemical damage. Inspect and replace gloves on a regular basis. The frequency of replacement will depend upon the circumstances of use.
Eyes	Safety glasses with side shields.

9 . Physical and chemical properties

Flash point	<21 °C (Closed cup) Pensky-Martens.
Explosion limits	Lower: 0.6 % Upper: 0.8 %
Pour Point	-6 °C
Colour	Brown.
Odour	Pungent.
Physical state	Liquid.
Boiling point / range	-10 to 800 °C
Density	900 kg/m ³ (0.9 g/cm ³) at 15°C
Vapor pressure	6.9 - 13.8 kPa (52 - 104 mm Hg) at 37.8°C
Solubility	Insoluble in water.
LogK_{ow}	The product is more soluble in octanol; log(octanol/water) >3
Viscosity	Kinematic: 17 to 22 mm ² /s (17 to 22 cSt) at 40°C Kinematic: 50 mm ² /s (50 cSt) at 20°C

10 . Stability and reactivity

Conditions to Avoid	Avoid all possible sources of ignition (spark or flame).
Incompatibility with various substances	Reactive with oxidising agents.
Hazardous polymerization	Will not occur.

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. As with all such products containing potentially harmful levels of PCAs, prolonged or repeated skin contact may eventually result in dermatitis or more serious irreversible skin disorders including cancer. Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhoea. May cause irritation to eyes, nose and throat due to exposure to vapour, mists or fumes. ABUSE: Under normal conditions of use the product is not hazardous; however, abuse involving deliberate inhalation of very high concentrations of vapour, even for short periods, can produce unconsciousness and/or result in a sudden fatality.
Chronic toxicity	
Carcinogenic effects	CANCER HAZARD. CAN CAUSE CANCER. Risk of cancer depends on duration and level of exposure. Classified 2 (Suspected for humans.) by European Union [Crude oil].

12 . Ecological information

Persistence/degradability	Inherently biodegradable.
Mobility	Spillages may penetrate the soil causing ground water contamination. This material may accumulate in sediments.
Bioaccumulative potential	This product is not expected to bioaccumulate through food chains in the environment.
Environmental hazards	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Other ecological information	Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

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13 . Disposal considerations

Disposal Consideration / Waste information

Dispose of via an authorised person/ licensed waste disposal contractor in accordance with local regulations.

14 . Transport information

International transport regulations

Regulatory Information	UN number	Proper shipping name	Class	Packing group	Label	Additional Information
ADR/RID Classification	1267	Petroleum crude oil	3	II		Hazard identification number 33 UK Emergency Action Code: 3WE
ADNR Classification	1267	Petroleum crude oil	3	II		-
IMDG Classification	1267	Petroleum crude oil	3	II		-
IATA Classification	1267	Petroleum crude oil	3	II		-

15 . Regulatory information

Label Requirements

Hazard symbol(s)



Indication of Danger

Highly flammable

Risk Phrases

R11- Highly flammable.
R45- May cause cancer.
R66- Repeated exposure may cause skin dryness or cracking.
R67- Vapours may cause drowsiness and dizziness.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases

S43: In case of fire, use CO2, dry powder, foam. Never use water.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S53- Avoid exposure - obtain special instructions before use.
S61- Avoid release to the environment. Refer to special instructions/Safety data sheet.

Contains

Crude oil 232-298-5

EU Regulations

Classification and labelling have been performed according to EU directives 1999/45/EC and 67/548/EEC as amended and adapted.

Other regulations

Inventories

AUSTRALIAN INVENTORY (AICS): Listed on inventory.
CANADA INVENTORY (DSL): Listed on inventory.
CHINA INVENTORY (IECS): Listed on inventory.
EC INVENTORY (EINECS/ELINCS): Listed on inventory.

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JAPAN INVENTORY (ENCS): Listed on inventory.

KOREA INVENTORY (ECL): Listed on inventory.

PHILIPPINE INVENTORY (PICCS): Listed on inventory.

US INVENTORY (TSCA): Listed on inventory.

Additional warning phrases

P99- Restricted to professional users. Attention - Avoid exposure - obtain special instructions before use.

16 . Other information

Full text of R phrases referred to in sections 2 and 3

R11- Highly flammable.
R45- May cause cancer.
R66- Repeated exposure may cause skin dryness or cracking.
R67- Vapours may cause drowsiness and dizziness.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

History

Date of issue 26/10/2004.

Date of previous issue 19/10/2004.

Prepared by Product Stewardship Group

Notice to reader

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.