

murco petroleum limited



MATERIAL SAFETY DATA SHEET

**SUPER UNLEADED MOTOR SPIRIT
UNLEADED MOTOR SPIRIT
ULTRA LOW SULPHUR PETROL
SULPHUR-FREE PETROL**

**BS 7800
BS EN228
PU50
PU10**

1 IDENTIFICATION OF THE SUBSTANCE & OF THE COMPANY / UNDERTAKING

IDENTIFICATION OF THE SUBSTANCE OR PREPARATION:

MOTOR SPIRITS, also known as PETROL or GASOLINE, are fuels for spark ignition engines mainly for automotive and commercial use. They should **not** be used in aircraft engines, as solvents or for cleaning.

Contains: Gasoline (low boiling point naphtha):
CAS No. 86290-81-5

EINECS No. 289-220-8

COMPANY IDENTIFICATION: **Murco Petroleum Limited
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AL1 3RH**

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2 COMPOSITION / INFORMATION ON INGREDIENTS:

Complex mixtures of hydrocarbons mainly in the C4-C10 range. The principal components are paraffinic, naphthenic and aromatic hydrocarbons but cracked constituents and oxygenates can be present. May contain up to 1% Benzene and antioxidants and detergents, in low concentrations. Exposure limit values exist for the following components: benzene, n-hexane, toluene, xylenes. The following component, present at significant concentration, has health effects:

| Conc. | Component | Class. | Risk phrases |
|-------|-----------|------------|---|
| >99% | Gasoline | Carc Cat 2 | R45 - May cause cancer |
| | | Xn | R65 - May cause lung damage if swallowed |
| | | Xi | R38 - Irritating to skin |
| | | Muta Cat 2 | R46 - May cause heritable genetic damage |
| | | Repr Cat3 | R63 - Possible risk of harm to the unborn child |

3 HAZARDS IDENTIFICATION

Motor Spirits are classified as **Extremely Flammable**. The vapour is heavier than air and explosive mixtures can accumulate in low spots. It may be ignited at some distance away from exposed motor spirit resulting in flashbacks.

Aspiration into the lungs caused by vomiting is harmful and can be fatal.

Hazardous components include Benzene for which there is a maximum exposure limit of 1 ppm (HSE Occupational Exposure Limits EH40) or 3 mg m⁻³. Benzene is listed in EH40, Appendix 9: Substances defined as Carcinogens for the purpose of the COSHH Regulations. If Benzene is present at a concentration equal to or in excess of 0.1% the Risk Phrase "R45 - May cause cancer" will apply.

CONTAINS BENZENE (CAS No. 71-43-2): Carcinogen - Category 1.

4 FIRST AID MEASURES

TYPE OF EXPOSURE

Ingestion

The swallowing of small amounts may cause nausea and diarrhoea; larger amounts may cause irritation and drowsiness with vomiting.

Skin

Unlikely to cause irritation on single contact. Prolonged or repeated contact is likely to cause short-term irritation, de-fatting of the skin and could result in dermatitis.

Eyes

Likely to cause short-term irritation with redness and stinging.

Inhalation

High vapour concentrations can cause irritation to eyes and mucous membranes, and drowsiness leading to loss of consciousness.

FIRST AID MEASURES

Ingestion

Wash mouth out with water and give water to drink (milk if available) - get medical advice. **DO NOT INDUCE VOMITING BECAUSE OF THE DANGER OF ASPIRATION.**

Skin

Wash skin as soon as possible with soap and water. Change contaminated clothing immediately and launder before reuse. Get medical advice if irritation persists.

Eyes

Wash out immediately with large amounts of water. If redness and/or irritation continues get medical advice.

Inhalation

If inhalation of vapour causes irritation or drowsiness remove to fresh air. Get medical advice if the symptoms continue.

5 FIRE-FIGHTING MEASURES

Extinguish with agents approved for Class B hazards (e.g. Dry Powder, Foam or Carbon Dioxide). For small fires use CO₂, Dry Powder, sand, earth.

Note - Classified Extremely Flammable. Flammability Limits between 1% and 7%.

Fires in closed or confined spaces should be tackled by trained personnel who should wear breathing apparatus. Do not use water jets; the use of water fog should be left to experienced personnel.

6 ACCIDENTAL RELEASE MEASURES

Treat any spillage as a major fire hazard. Explosive mixtures can be formed particularly where there is poor ventilation. Vapour heavier than air and can collect in sumps and drainage systems.

Contain spillage - do not wash spillage down drain. Absorb using absorbent clay, diatomaceous clay or other suitable absorbent. May cause damage to surfaces, making them slippery.

7 HANDLING AND STORAGE**7.1 Handling**

Motor spirits are designed to be used in closed systems. Avoid sources of ignition when refuelling vehicles or working on fuel system components. Electrical continuity is required between vessels during product transfer. Avoid splash loading
Ensure good ventilation at all times - classified **Extremely Flammable**.

7.2 Storage

Storage is controlled by legislation, primarily that stemming from the Petroleum (Consolidation) Act 1928. A licence issued by a Local Authority or the Health and Safety Executive is required if more than 3 gallons (13.6 litres) are to be stored. Advice as to the storage of motor spirits is given in HSE Guidance Notes: see section 16.

Drums should be stored on their sides on racks preferably under cover, out of direct sunlight, in well ventilated conditions.

Other types of containers should be stored under cover out of direct sunlight, in well ventilated conditions. Care should be taken to avoid over-stacking.

8 EXPOSURE CONTROL / PERSONAL PROTECTION

Where prolonged or repeated exposure is likely PROTECTIVE CLOTHING must be worn including impervious GLOVES and EYE PROTECTION.

Respiratory protection - Unlikely to be required in normal use but ensure good ventilation - note classified Extremely Flammable. It is suggested that exposure is kept well below the ACGIH Threshold Limit Values -

8 hour TWA - 300 ppm (900 milligrams per cubic metre)

15 minute STEL - 500 ppm (1500 milligrams per cubic metre)

Respiratory protective equipment to BS EN 137 - Compressed air breathing apparatus – should be used where exposures are likely to exceed the exposure limits.

A Maximum Exposure Limit for Benzene is listed in HSE Guidance Note EH 40 -

Long term exposure limit - (8 hour TWA reference period) - 1 ppm
[3 milligrams / cubic metre]

No short term limit is listed.

Hand and skin protection - Hand and skin protection recommended at all times. Where exposure is likely protective clothing must be worn, including nitrile gloves approved to BS EN 374 with a breakthrough time of >360 minutes.

Eye protection - Eye protection approved to BS EN 166 is recommended at all times

9 PHYSICAL AND CHEMICAL PROPERTIES

Typical properties:

| | |
|--------------------------------------|-----------------------|
| Appearance | Pale yellow fluid |
| Odour | gasoline, typical |
| pH | not applicable |
| Boiling Range °C | Approx. 35 - 215 |
| Flash Point (PMC) °C | Typically minus 40 |
| Flammability Limits % vol | Lower 1 - Upper 7 |
| Auto ignition temperature °C | 380 |
| Explosive properties | not applicable |
| Oxidising properties | not applicable |
| Reid Vapour Pressure at 37.8 °C, bar | 0.5 - 1.00 |
| Density at 15°C | 0.71 - 0.78 |
| Solubility - water | very low |
| - fat | not available |
| Partition coefficient - Log Pow | 2 - >6 for components |
| Viscosity cSt @ 40°C | 0.5 - 0.75 |
| Vapour density (relative to air) | 4 – 5 |
| Evaporation rate | not available |

10 STABILITY AND REACTIVITY

Conditions to Avoid - heat (classified Extremely Flammable)

Materials to Avoid - may react with strong oxidising materials.

Hazardous Decomposition Products - thermal decomposition may lead to the formation of a multiplicity of compounds some of which may be hazardous. With incomplete combustion smoke and hazardous fumes and gases, including carbon monoxide may be formed.

11 TOXICOLOGICAL INFORMATION

Toxicity following a single exposure to high levels (oral, dermal, inhalation) is of a low order. Motor spirits are classified category 2 carcinogens due to their benzene content. Adherence to the recommended hygiene measures will reduce any risks, which under normal conditions of use will be minimal.

12 ECOLOGICAL INFORMATION

Motor spirits are mixtures of volatile components which will react rapidly with hydroxyl radicals in air.
Likely to harm aquatic organisms; may cause long-term adverse effects in the aquatic environment. Likely to evaporate readily, but any films formed on water may affect oxygen transfer and damage organisms. Expected to biodegrade slowly.

13 DISPOSAL CONSIDERATIONS

Disposal should be carried out by incineration or as required under Local Authority Regulations. Under no circumstances should motor spirit be discharged into the public drainage system, or marine and inland waterways.

14 TRANSPORT INFORMATIONTRANSPORT CLASSIFICATION

Flammable liquid

HAZCHEM Code: 3/Y/E Symbol: "Flammable Liquid" Diamond

UN: Flammable Liquid, Class 3

UN Number (Substance Identification Number): 1203

UN Packing Group: II IMO Hazard Class: 3.1 ADR/RID Hazard Class: 3 (F1)

IATA: Flammable liquid Class 3, Packing Group 1

15 REGULATORY INFORMATION**LABELLING**

| | |
|-----------------|--|
| Symbols: | (i) Black flame on Orange Square (ii) Black skull and crossbones on Orange Square (iii) Dead fish and tree |
| Classification: | Extremely Flammable. Irritant. Dangerous for the environment. |
| R12 - | Extremely Flammable |
| R65 - | Harmful: May cause lung damage if swallowed |
| R38 - | Irritating to skin |
| R45 - | May cause cancer |
| R46 - | May cause heritable genetic damage |
| R63 - | Possible risk of harm to the unborn child |
| R51/53 - | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| R67 - | Vapours may cause drowsiness and dizziness |
| S2 - | Keep out of reach of children |
| S7 - | Keep container tightly closed |
| S16 - | Keep away from sources of ignition - No smoking |
| S23 - | Do not breathe fumes or vapour |
| S24 - | Avoid contact with skin |
| S43 - | In case of fire use foam/dry powder/CO2/Halon - Never use water |
| S61 - | Avoid release to the environment. Refer to special instructions/Safety Data sheet |
| S62 - | If swallowed, do not induce vomiting: seek medical advice immediately and show the container or label |

16 OTHER INFORMATION

Further information can be found in Health and Safety Executive publications, a list of which may be made available on request from HSE Books - Tel: 01787 881165.

This data sheet has been prepared in accordance with the requirements of the Data Sheet Directive 91/155/EEC as amended by Directive 2001/58/EC.

LEGAL NOTICE

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