



**ESSO PETROLEUM COMPANY LIMITED
PRODUCT HEALTH AND SAFETY DATA**

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION

PRODUCT: **MARCOL 52**
PRODUCT #: **U-3151**
PHSD #: **61-4060000**
DATE OF ISSUE: **DECEMBER 1992**

ESSO PETROLEUM COMPANY LIMITED
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IN AN EMERGENCY PLEASE CONTACT:
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2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients present at or above 0.1 wt% (classified as toxic or very toxic) or 1 wt% (classified as harmful, irritant or corrosive).

HAZARDOUS INGREDIENT	APPROXIMATE CONCENTRATION
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None

3. HAZARD IDENTIFICATION

This product contains a highly refined base oil and is not considered to present any hazard during normal use, although the OEL for oil mist should be observed.

4. FIRST AID

INHALATION:

At ambient/normal handling temperatures (0-38 deg. C), no adverse effects due to inhalation of vapour are expected.

SKIN CONTACT:

No adverse effects due to skin contact are expected.

EYE CONTACT:

No adverse effects due to eye contact are expected.

INGESTION:

DO NOT induce vomiting since it is important that no amount of the material should enter the lungs (aspiration). Keep at rest. Get prompt medical attention.



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5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA:

Foam, dry chemical powder, carbon dioxide.

FIRE AND EXPLOSION HAZARDS:

Combustible material, low hazard. The product can form flammable mixtures or can burn only on heating above the flash point. However, minor contamination by hydrocarbons of higher volatility may increase the hazard.

SPECIAL FIRE-FIGHTING PROCEDURES:

Water fog or spray, to cool fire-exposed surfaces (e.g. containers) and to protect personnel, should only be used by personnel trained in fire fighting.

Cut off "fuel"; depending on circumstances, either allow the fire to burn out under controlled conditions or use foam or dry chemical powder to extinguish the fire.

Respiratory and eye protection required for fire fighting personnel exposed to fumes or smoke.

HAZARDOUS COMBUSTION PRODUCTS:

Smoke, and carbon monoxide may be formed in the event of incomplete combustion.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: See Section 8.

LAND SPILL:

Shut off source taking normal safety precautions. Prevent liquid from entering sewers, water courses or low lying areas; advise the relevant authorities if it has, or if it contaminates soil/vegetation. Take measures to minimise the effects on ground water.

Recover by skimming or pumping using explosion-proof equipment, or contain spilled liquid with booms, sand, or other suitable absorbent and remove mechanically into containers.

If necessary, dispose of adsorbed residues as directed in Section 13.



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6. ACCIDENTAL RELEASE MEASURES (Continued)

WATER SPILL:

Confine the spill immediately with booms. Warn other shipping. Notify port and other relevant authorities.

Remove from the surface by skimming or with suitable absorbents. Disperse the residue in unconfined waters, if permitted by local authorities and environmental agencies.

7. HANDLING AND STORAGE

Store the product in cool, well ventilated surroundings, well away from sources of ignition.

Provide suitable mechanical equipment for the safe handling of drums and heavy packages.

Electrical equipment and fittings must comply with local regulations regarding fire prevention with this class of product.

LOAD/UNLOAD TEMPERATURE deg. C: Ambient to max. 50 C

STORAGE TEMPERATURE deg. C: 0 C to max. 40 C

SPECIAL PRECAUTIONS:

Take extreme care to avoid contamination by other products and materials.

Keep containers closed when not in use.

Prevent small spills and leakages to avoid slip hazard.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMIT:

5 mg/m³ for oil mists (TWA, 8h - workday) recommended based upon the ACGIH TLV (Analysis according to US NIOSH Method 5026, NIOSH Manual of Analytical Methods, 3rd Ed.).

PERSONAL PROTECTION:

In open systems where contact is likely, wear safety glasses with side shields.

When concentrations in air may exceed the occupational exposure limit, and where engineering, work practices, or other means of exposure reduction are not adequate, approved respirators may be required.



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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE / ODOUR:

Clear colourless liquid, neutral odour.

DENSITY, g/ml: 0.84 at 15 deg. C (range 0.82 - 0.84)

BOILING RANGE: 316.0 deg. C IBP.

VISCOSITY, mm²/S: 6.9 at 40 deg. C Range 6.8 - 7.9

VAPOUR PRESSURE, kPa: at 20 deg. C max. 0.01

VAPOUR DENSITY AT 1 BAR (Air=1): Data not available.

EVAPORATION RATE (n-butyl acetate=1): <0.01

SOLUBILITY IN WATER: 20 deg. C Negligible

pH: Not Applicable.

FLASH POINT: > 148 deg. C METHOD: COC

FLAMMABILITY LIMITS IN AIR, % BY VOL:

LEL: 1.0 UEL: 6.0 Approx.

AUTOIGNITION TEMPERATURE: Data not available.

PARTITION COEFFICIENT n-octanol/water: Data not available.

10. STABILITY AND REACTIVITY

STABILITY (THERMAL, LIGHT, ETC): Stable

CONDITIONS TO AVOID:

Keep away from heat sources, open flames and other sources of ignition.

INCOMPATIBLE MATERIALS:

Avoid contact with strong oxidants such as liquid chlorine and concentrated oxygen.



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10. STABILITY AND REACTIVITY (Continued)

HAZARDOUS DECOMPOSITION PRODUCTS:

Product does not decompose at ambient temperature.

11. TOXICOLOGICAL INFORMATION

EFFECTS OF OVER EXPOSURE:

INHALATION:

No hazard in normal industrial use.

SKIN CONTACT:

Not considered to be a hazard.

EYE CONTACT:

Not considered to be a hazard.

INGESTION:

No hazard in normal industrial use.

Minute amounts aspirated into the lungs during ingestion or vomiting may cause severe pulmonary injury and death.

CHRONIC:

Contains lubricating oil base stocks. Base oils of similar composition and refining history have exhibited no carcinogenic activity in laboratory animals.

TOXICITY DATA:

ACUTE:

No test data are available for this product. The potential health hazards were therefore derived from what is known of the toxicity of base oils in general. The general effects of base oils of this type are well known and are described in numerous publications including CONCAWE Report 5/87 "Health Aspects of Lubricants".



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11. TOXICOLOGICAL INFORMATION (Continued)

CHRONIC:

Although there is no specific test data on the base oil components, the base oil would not be expected to exhibit carcinogenic potential based upon what is known of the toxicity of base oils in general.

12. ECOLOGICAL INFORMATION

In the absence of specific environmental data for this product, this assessment is based on information for general hydrocarbon components found in lubricant mineral oils. Lubricant mineral oils, immediately following a release into the environment, will remain largely on the soil surface, and in water, will remain largely on the water surface. Based on chemical/physical information from the literature for this product category, no harmful effects to terrestrial or aquatic habitats would be expected. This product is expected to be resistant to biodegradation and to persist in the environment. This product may contain additives for which no environmental data is available. Hence, the above assessment concerns the base oil(s) only.

13. DISPOSAL CONSIDERATIONS

Collect and dispose of waste product at an authorised disposal facility, in conformance with national and local regulations, and in accordance with EEC Directives on the disposal of waste oil.

14. TRANSPORT INFORMATION

USUAL SHIPPING CONTAINERS:

Rail cars, tank trucks, drums.

TRANSPORT TEMPERATURE deg. C: Ambient to max. 40 C

15. REGULATORY INFORMATION

EC DANGEROUS SUBSTANCES/PREPARATIONS CLASSIFICATION:

Not Regulated



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15. REGULATORY INFORMATION (Continued)

Refer to your national legislation implementing the EC Directive 91/155/EC

16. OTHER INFORMATION

PRODUCT TYPE / USES:

White oil meets US and European Pharmacopoeia requirements;
complies with FDA regulations 21 CFR 172.878 and 178.3620 (a)

SOURCE OF KEY DATA:

The recommendations presented in this Material Safety Data Sheet were compiled from actual test data (when available), comparison with similar products, component information from suppliers and from recognised codes of good practice.

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