

PRODUCT SAFETY DATA SHEET

AGIP OSO (ISO 15)

Date : 13/11/1998

Version : 1,01

Supersedes SDS
dated : 09/05/1997

1. Identification of the substance/preparation and of the company**Identification of the substance
or preparation:** AGIP OSO 15.**Type of product and use:** Hydraulic oil**Company identification:** AGIP PETROLI S.p.A**Address and telephone Nr.:** Via Laurentina, 449 - 00142 ROMA ITALY
TEL. (+ 39) 06-59881 FAX (+ 39) 06-59885700

2. Composition/information on ingredients.**Components:** Paraffinic base stock, severely solvent refined (98 %wt
min.) - CAS 64741-89-5
Additives.

3. Hazards identification.**Important hazards:** This product is of low oral and dermal toxicity and under
normal conditions of use should present no significant
health hazards. However, in common with most mineral
oils, prolonged and repeated skin contact may cause
dermatitis. Handling precautions must be strictly
observed.**General informations:** Any substance, in case of accidents involving pressurized
circuits and the like, may be accidentally injected under
the skin, even without external damage.
In such a case, the victim should be brought to an hospital
as soon as possible, to get specialized medical treatment.

4. First-aid measures.

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| Skin contact: | Take off contaminated clothing and shoes. Wash thoroughly with soap and water. |
| Eye contact: | Flush with large amounts of water; if irritation persists, seek medical attention. |
| Ingestion: | Do not induce vomiting to avoid aspiration into the lungs; seek medical attention. |
| Aspiration of liquid into the lungs: | If there is the possibility that the product has been aspired into the lungs (i.e. in case of spontaneous vomiting), transport the victim to a hospital. |
| Inhalation: | In case of exposure to a high concentration of vapours, remove the victim from exposure; keep at rest; if necessary, seek medical attention. |

5. Fire-fighting measures.

Extinguishing media:

- **Suitable:** Carbon dioxide, dry chemicals, foam, water spray (fog).
- **Not to be used:** Do not use water jets

Other informations: Spilled product which is not burning should be covered with sand or foam
Use water sprays to cool the surfaces exposed to the flames.

Special protective equipment : Wear a suitable breathing apparatus if smoke is present.

Useful precautions: Avoid accidental sprays (i.e. from broken couplings) on hot surfaces or electrical contacts (switches, outlets and the like).
In case of losses from pressurized circuits, the sprays may form oil mists. Take into account that the lower explosion limit for oil mists is about 45 g oil/m³ air.

6. Accidental release measures.

General measures: Shut off source of spill, if possible.

Methods for cleaning up:

- On soil:** Contain spilled liquid with sand, earth or other suitable absorbents. Recover free liquid. Clean contaminated area. Dispose of according to local regulations.
- On water:** Confine the spillage. Remove from surface by skimming or suitable absorbents. Notify local authorities according to regulations.
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7. Handling and storage.

Storage: Storage temperature : ambient to 65°C max .

Handling: Store the product in cool, well ventilated surrounding. Keep away from sources of ignition.

8. Exposure controls/personal protection.

Exposure control: TLV-TWA (A.C.G.I.H. 1999) : 5 mg/m³ (mineral oil mists)
TLV-STEL (A.C.G.I.H. 1999) : 10 mg/m³ (mineral oil mists)

Personal protection:

- Open spaces: No special measures

- Confined spaces: Aspirators in case of oil mist; protective shields, in case of oil splashes.

Hand/eyes/skin protection: Mineral oil resistant gloves, overalls. Gloves must be felt-lined.

Hygiene measures: Do not drink, eat or smoke with dirty hands.
Wash hands before going to the toilet.
Do not clean hands with dirty or oil-soaked rags.
Change clothes if they are soaked with oil, and in any case at the end of the working shift.
Wash hands with water and soap, do not use solvents or other irritant products which have a defatting effect on the skin.

9. Physical and chemical properties (typical values).

Appearance: Liquid, bright & clear (ASTM D 4176/1).

Odour: Characteristic.

Colour Not determined (ASTM D 1500)

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| Density a 15°C: | 860 kg/m ³ (ASTM D 1298). |
| Boiling point/range: | > 200 °C (at 10 mmHg) (ASTM D 1160) |
| Vapour pressure: | 1-10-3 hPa (20 °C). |
| Viscosity at 40°C: | 14,3 mm ² /s (ASTM D 445). |
| Solubility in water: | Insoluble in water |
| pH : | Not applicable. |
| Pour point: | -27 °C. (ASTM D 97 |
| Flash point : | 200 °C. (ASTM D 92) |
| Auto-ignition temperature: | > 300 °C (DIN 51794) |
| Explosion limits: | |
| - Lower: | Not determined. |
| - Upper: | Not determined. |
| Partition coefficient (P_{o/w}): | Not determined. |
| DMSO extract of base stock: | < 3 % wt (IP 346/92) |

10. Stability and reactivity.

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| Thermal decomposition products: | CO _x , HC |
| Stability: | Stable product. |
| Hazardous reactions: | None |
| Materials to avoid: | Strong oxidants |

11. Toxicological information.

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| Oral toxicity: | LD50 greater than 5000 mg/kg |
| Dermal toxicity | LD50 greater than 5000 mg/kg |
| Inhalation toxicity: | LC50 greater than 5 mg/l/4h |
| Other informations: | <ul style="list-style-type: none">* Not irritating to eyes and skin* Minor irritation may occur after prolonged or repeated contact, especially if normal hygienic rules are not respected.* None of the components of this product are listed as carcinogen by NTP, IARC, OSHA, EU or others.* No components of this product are included in the EU list of dangerous substances (Annex I of Directive 67/548/EEC and its ATP's) |

12. Ecological information.

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| General informations: | <p>This product is expected to be resistant to biodegradation and to persist in the environment. No specific environmental data are available for this product. Handle according to general working hygiene practices to avoid pollution and release into the environment.</p> |
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13. Disposal considerations.

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| Disposal of product: | Do not dispose of the product, either new or used, by discharging into sewers, tunnels, lakes or water courses. Deliver to a qualified official collector. |
| European Waste Catalogue Code: | 13 01 06 |
| Disposal of packaging: | Dispose of in a safe manner, in accordance with local regulations. |

14. Transport information.

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| RID/ADR: | Does not belong to any class of danger. |
| ICAO/IATA: | Does not belong to any class of danger. |
| IMO-IMDG code: | Does not belong to any class of danger. |

15. Regulatory information.

Applicable laws and regulations:

National laws on classification and labeling of dangerous substances/preparations (Adoption of Directive 67/548/CE and subsequent Adaptations to Technical Progress - ATP).
Relevant national laws on health and safety on the workplace.

National adoption of Directives 89/391/CEE, 89/654/CEE, 89/655/CEE, 89/656/CEE, 90/269/CEE, 90/270/CEE, 90/394/CEE, 90/679/CEE.

Relevant national laws on prevention of water pollution.

National adoption of Directive 75/439/CEE concerning disposal of used oils.

Relevant national laws on recycling and re-use of waste materials.

16. Other information.

NONE

This information relates only to the specific product and may not be valid if the product is used in combination with any other material or in any process.

The informations in this sheet are according to our best knowledge at the date of printing.

This Safety Data Sheet has been checked and printed on 24/02/2000.