



PRODUCT SAFETY DATA SHEET

Product : **AGIP SIGMA TURBO (SAE 15W-40)**

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Product code : 1145

Version : 2

Date : 11/08/2003

Supersedes SDS dated : 16/01/2002

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

Identification of the substance or

preparation:

AGIP SIGMA TURBO 15W-40.

Type of product and use:

Lubricant for internal combustion engines

Company identification:

ENI S.p.A. - Refining & Marketing Division

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 (84 %wt min.) - CAS 101316-72-7
Additives

Hazardous component(s):

Overbased calcium alkylsulfonate 1,5 % wt max (Polymer - R 38-53)
Neutral calcium sulphonate 1 % wt max (CAS 90268-85-2; Xi; R 43-52/53)

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.

Environmental hazards:

This product is not classified as dangerous to the environment, according to the criteria set by the EU.

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.

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 aspirated into the lungs (i.e. in case of spontaneous vomiting), transport the victim to a hospital.

Inhalation:

In case of disturbances owing to an exposure to a high concentration of vapours or mists, 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).

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- Not to be used:	Do not use water jets. They could cause splattering, and spread the fire.
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 for firefighters:	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/m ³ air.

6. Accidental release measures.

General measures:	Shut off source of spill, if possible.
Methods for cleaning up:	
- Soil:	Contain spilled liquid with sand, earth or other suitable absorbents. Recover free liquid. Clean contaminated area. Dispose of according to local regulations.
- Water:	Confine the spillage. Remove from surface by skimming or suitable absorbents. Notify local authorities according to regulations.

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 limits:	TLV-TWA (A.C.G.I.H. 2002): 5 mg/m ³ (mineral oil mists) TLV-STEL (A.C.G.I.H. 2002): 10 mg/m ³ (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 dirty or soaked, 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)
Density a 15°C:	885 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 100°C :	13,7 mm ² /s (ASTM D 445).

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Solubility in water:	Insoluble in water
pH :	Not applicable (ASTM D 1287).
Pour point:	-24 °C. (ASTM D 97)
Flash point :	210 °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.

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

11. Toxicological information.

Oral toxicity (rat):	LD50 greater than 5000 mg/kg
Dermal toxicity (rabbit):	LD50 greater than 5000 mg/kg
Inhalation toxicity (rat):	LC50 greater than 5 mg/l/4h
Skin sensitization:	The product is not classified as a sensitizer according to the criteria set by the EU. (Based on test with similar products).
Other informations:	* 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.

12. Ecological information.

General informations:	This product is expected to be resistant to biodegradation and to persist in the environment. No specific environmental data are available for this product. According to the components, and by comparison with other products of the same type and composition, it is expected that this product has a toxicity for aquatic organisms > 100 mg/l, and must not be regarded as dangerous to the environment. Handle according to general working hygiene practices to avoid pollution and release into the environment.
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13. Disposal considerations.

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 02 05 (Ref: 2001/118/CE)
Disposal of packaging:	Dispose of in a safe manner, in accordance with local regulations.

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14. Transport information.

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.

Other indications: Contains a sensitizer (Calcium sulphonate) in an amount > 0.1 % wt (Ref.: Dir. 1999/45/CE)

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, and Directive 1999/45/CE).
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, 93/88/CEE, 95/63/CE, 97/42/CE, 98/24/CE, 99/38/CE.
National adoption of Directive 75/439/CEE concerning disposal of used oils.
Relevant national laws on recycling and re-use of waste materials.
Relevant national laws on prevention of water pollution.

16. Other information.

Nature of revision: Correction in Section: 2, 11, 12, 15.
Adaption to new regulation: 1999/45/CE.
Laboratory tests on animals have shown that engine oils undergo changes during usage, and risks increase, compared with fresh oils.
Therefore, it is very important to follow the above mentioned precautionary measures also with used oils.

This Safety Data Sheets conforms to the dispositions of the Directives 88/379/EC and 91/155/EC.

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 12/08/2003.

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