



PRODUCT SAFETY DATA SHEET

Product : **AGIP FORMULA MS B04 (SAE 5W-30)**

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Product code : NL017

Version : 1

Date : 07/06/2005

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

Identification of the substance or

preparation:

AGIP FORMULA MS B04 (SAE 5W-30)

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, hydroisomerized (80 % wt min) - CAS 72623-87-1
Additives

Hazardous component(s):

Calcium alkylsalicylate 2.5 % wt max (Polymer - R 52/53)
Zinc alkyl-di-tiophosphate 1.5 % wt max (EINECS 272-028-3; Xi, N; R 38-41-51/53)

Other informations:

All the mineral base oils contained in this product have a value < 3 % wt of DMSO extract, according to IP 346/92 (note L - Dir. 94/69/CE)

3. Hazards identification.

3.0 General informations:

Classification of the product:

The product is not classified as dangerous according to the criteria set by the European Union.

3.1 Physical-chemical dangers:

Important hazards:

Product with a low risk of fire. It can create flammable mixtures or burn only if heated above its flash point.

3.2 Dangers for human health:

Skin contact:

Prolonged and repeated skin contact, especially if hygiene practices are poor, may cause reddening, irritation and dermatitis.

Eye contact:

Contact with eyes may cause reddening and irritation.

Ingestion:

Accidental ingestion of small quantities of the product may cause nausea, discomfort and gastric disturbances. Taking into account the taste and smell of the product, however, ingestion of dangerous quantities is very unlikely.

Inhalation:

This product has a low vapour pressure, and in normal conditions at ambient temperature the concentration in the air is negligible. A significant concentration may build up only if the product is used at high temperature, or in case of sprays and mists.

In these cases overexposure to vapours (e.g. through prolonged use in confined insufficiently ventilated spaces) may cause irritation to airways, nausea and dizziness.

Aspiration of liquid into the lungs:

The aspiration of small amounts of petroleum substances into the lungs may cause a chemical pneumonia. Taking into account the characteristics of the product, however, this possibility is unlikely.

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Other 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.

3.3 Environmental hazards:

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

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.
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.
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.

5. Fire-fighting measures.

General information: Shut off source of product, if possible.
If possible, move containers and drums away from danger area.
Extinguishing media:
- Suitable: Carbon dioxide, dry chemicals, foam, water spray (fog).
- Not to be used: Do not use water jets. They could cause splattering, and spread the fire.
Special protective equipment for firefighters: Personal protection equipment.
Self-contained breathing apparatus
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.
Other information: Spilled product which is not burning should be covered with sand or foam
Use water sprays to cool the surfaces exposed to the flames.
In case of fire, do not discharge runoff water: collect separately and use a proper treatment.

6. Accidental release measures.

General measures: Shut off source of spill, if possible.
Do not let the product flow into sewers, rivers or water courses.
Personal precautions: See Sect. 8 of this sheet.
Methods for cleaning up:
- Soil: Contain spilled liquid with sand, earth or other suitable absorbents. Recover free liquid and waste materials in suitable waterproof and oil-resistant containers. Clean contaminated area. Dispose of according to local regulations.

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- Water: Confine the spillage. Remove from surface by skimming or suitable absorbents.
Notify local authorities according to regulations.
Do not use solvents or dispersants.

7. Handling and storage.

Storage: Keep away from sources of ignition.
Storage temperature: ambient to 65°C max .

Handling: Store the product in cool, well ventilated surrounding.
Keep away from sources of ignition.
Avoid contact with skin
Do not breathe vapours or mists.
Do not smoke.
Do not cut, weld, drill, burn or incinerate empty containers or drums, unless they have been cleaned, and declared safe.

8. Exposure controls/personal protection.

8.1 Exposure limit values

Exposure limits: TLV-TWA (A.C.G.I.H. 2004): 5 mg/m³ (mineral oil mists)
TLV-STEL (A.C.G.I.H. 2004): 10 mg/m³ (mineral oil mists)

8.2 Control of exposure

General informations: In case the concentration of the product or any constituent is above the exposure limits, and if plant characteristics, work procedures and other means are not able to reach the purpose, it is necessary to use suitable means of personal protection.

Respiratory protection: Open or well ventilated areas: not necessary.
Closed or confined areas (e.g. tank interiors): self-contained breathing apparatus.

Personal protection: Long-sleeved overalls. If necessary, refer to the EN 465-466-467 standards
When there is a risk of contact with the eyes, use safety goggles or other means of protection. If necessary, refer to national standards or to the EN 166 standard.
When there is a risk of contact with the skin, use hydrocarbon-resistant, felt-lined gloves.
Experience shows that gloves made of: Nitrile rubber, PVA (polyvinylalcohol), PVC are adequate for this use.
Gloves made of: Natural rubber (Latex), Neoprene rubber have inadequate resistance.
Use gloves respecting all the conditions and within the limits set by the manufacturer. If necessary, refer to the EN 374 standard.

Hygiene measures: Do not breathe vapours or mists.
Avoid contact with skin and eyes
Do not clean hands with dirty or oil-soaked rags.
Do not keep dirty rags in the overall pockets.
Do not drink, eat or smoke with dirty hands.
Wash hands with water and soap, do not use solvents or other irritant products which have a defatting effect on the skin.
Do not re-use clothes, if they are still contaminated.

9. Physical and chemical properties (typical values).

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

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Odour:	Characteristic.
Colour	Not determined (ASTM D 1500)
Density a 15°C:	850 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:	69.4 mm ² /s (ASTM D 445).
Viscosity at 100°C :	11.9 mm ² /s (ASTM D 445).
Solubility in water:	Insoluble in water
pH :	Not applicable (ASTM D 1287).
Pour point:	-36 °C. (ASTM D 97)
Flash point :	225 °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, SOx, NOx. POx.
Stability:	Stable product.
Hazardous reactions:	None
Materials to avoid:	Strong oxidants

11. Toxicological information.

Oral toxicity (rat):	LD50 greater than 2000 mg/kg (estimated from the composition)
Dermal toxicity (rabbit):	LD50 greater than 2000 mg/kg (estimated from the composition)
Inhalation toxicity (rat):	LC50 greater than 5 mg/l/4h (estimated from the composition)
Skin sensitization:	This product does not contain any significant amounts of substances classified as sensitizers (in any case < 0.1 % wt)
Other information:	* 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. Handle according to general working hygiene practices to avoid pollution and release into the environment.
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Biodegradation:	The most significant constituents of the product should be considered as "inherently biodegradable", but not "readily biodegradable", and they may be moderately persistent, particularly in anaerobic conditions.
Toxicity for aquatic organisms:	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.
Other data:	This product has no specific properties for inhibition of bacterial activity. In any case, wastewater containing this product should be treated in plants that are suited for the specific purpose.
WGK class (Germany):	1.

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) This code is only a general indication, and takes into account the original composition of the product and its intended use. The user has the responsibility of choosing the right code, considering the actual use of the product, alterations and contaminations.
Disposal of packaging:	Dispose of in a safe manner, in accordance with local regulations. Do not cut, weld, drill, burn or incinerate empty containers or drums, unless they have been cleaned, and declared safe.

14. Transport information.

Substance identification number. (UN Nr.):	Not applicable.
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.

EU labelling information:	Not classified under this legislation.
Other indications:	None
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.

General indications:	Laboratory tests on animals have shown that engine oils undergo changes during usage, and risks increase, compared with fresh oils.
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Other uses of the product:

Therefore, it is very important to follow the above mentioned precautionary measures also with used oils.

Document references:

Do not use the product for any purposes that have not been advised by the manufacturer. In that case, the user could be exposed to unforeseeable dangers.

Text of R-phrases:

This Safety Data Sheets conforms to the dispositions of Directive 2001/58/CE

Complete text of the R-phrases quoted in this Safety Sheet.

These phrases are NOT the classification of the product.

R 38: Irritating to skin.

R 41: Risk of serious damage to eyes.

R 51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Nature of revision:

First issue.

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 07/06/2005.

End of document.

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