

Safety Data Sheet

Product name : AERO D 100 Page : 1/6
SDS n° :30873-33 Version :4.00 Version of :2003-10-05
This sheet supersedes the one dated :2000-07-26

PRODUCT LABELS

LABELLING (standard or EU): Not concerned
R-phrases : None
S-phrases : None
TRANSPORT LABELLING: Not applicable.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY UNDERTAKING

Name of the product : AERO D 100
Code No. : 112
Product application : Engine oil
Supplier : TOTAL LUBRIFIANTS
Le Diamant B
16, rue de la République
92922 Paris La Défense - France
Tel: +33 (0)1 41 35 40 00
Fax: +33 (0)1 41 35 84 71
E-mail : rm.msds-lubs@total.com
Emergency telephones : ORFILA / Tel : 01.45.42.59.59
See local details at end of sheet :

2. HAZARDS IDENTIFICATION

Health effects : This product does not present a danger of intoxication.
Environmental impact : Do not discharge this product into the environment.
Physico-chemical hazards : No special risk of fire or explosion under normal conditions of use

3. COMPOSITION/INFORMATION ON INGREDIENTS

PREPARATION

Chemical nature : Petroleum-derived severely refined mineral-base product in which the polycyclic aromatic hydrocarbons (PCA or PAH) content, measured by IP 346, is less than 3%

4. FIRST AID MEASURES

IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.

Inhalation : Inhalation of heavy concentrations of vapour, fumes or spray, may cause mild irritation of the throat.
Transport the person into fresh air, keep warm and allow to rest.
Ingestion : Possible risk of vomiting and diarrhoea.
Do not induce vomiting to avoid the risk of aspiration into the respiratory tract.
Give nothing to drink
Skin contact : Immediately remove all soiled or stained clothing.
Wash the affected area immediately and repeatedly with soap and water.
Eye contact : Keep eyes open and rinse immediately and repeatedly with water for at least 15 minutes.

Safety Data Sheet

Product name : AERO D 100 Page : 2/6
SDS n° :30873-33 Version :4.00 Version of :2003-10-05
This sheet supersedes the one dated :2000-07-26

Aspiration : If the product is believed to have entered the lungs (in case of vomiting, for example), take the person to hospital for immediate care.

5. FIRE FIGHTING MEASURES

Flash point:
See heading 9

Extinguishing media :
- suitable:
Foam, carbon dioxide (CO₂), powder.
- not recommended:
Do not use water jets (stick jets) for extinguishing fire, as this may help the spread of flames.

Specific hazards :
Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled.
Vapours can build explosive mixtures with air.
Vapours are heavier than air and may spread on the ground to sources of ignition.

Protective measures for firefighters :
Insulated breathing apparatus must be worn in confined premises with heavy concentrations of fumes and gases.

Other :
All combustion residues and contaminated water from fire-fighting should be disposed of according to local regulations.

6. ACCIDENTAL RELEASE MEASURES

See sections 8 and 13.

Personal protection :
Ensure good ventilation.
Remove sources of ignition. Do not smoke.

After spillage / leakage :
- On land:
Surfaces on which the product has been spilled may become slippery.
Do not allow the product to enter sewers or rivers or contaminate the soil.
Recover with mechanical means such as pumps and skimmers.
- On water:
Floating absorbant material, then mechanical recovery.
If the product is spilt into rivers or sewers, notify the authorities of the possible presence of surface effluent.

7. HANDLING AND STORAGE

HANDLING :

Prevention of user exposure :
Ventilate extensively if the formation of vapours, fumes, mists or aerosol is a risk. Make all the necessary arrangements in order to reduce exposure risk, notably to products in use or to wastes.
Keep away from combustible substances; keep away from food and beverages.

Prevention of fire and explosion :
Empty containers may contain flammable or explosive vapours.
There is a fire hazard associated with rags, paper or any other material used to remove spills which become soaked with product.
Avoid accumulation of these: they are to be disposed off safely after use.

Precautions :
Avoid static electricity build up with connection to earth.
Set up machinery and equipment so as to avoid the risk of accidental spills or splashes onto hot machine parts and electrical contacts (on joint failure, for example).

STORAGE :

Technical measures :
Make the necessary arrangements to prevent water and soil pollution.

Safety Data Sheet

Product name :

AERO D 100

Page : 3/6

SDS n° :30873-33

Version :4.00

Version of :2003-10-05

This sheet supersedes the one dated :2000-07-26

Storage precautions :

- Suitable:
Store at ambient temperature, protected against contact with water and moisture, and away from any source of ignition.
Keep containers closed when not in use
- To be avoided:
Do not store exposed to the elements.

Incompatible products :

Dangerous reaction with strong oxidizing agents.

Packaging materials :

- Recommended:
Use only hydrocarbon-resistant containers, joints, pipes, etc.
Keep in original container if possible.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Technical measures :

Use the product in a properly ventilated atmosphere.
When working on enclosed place (tanks, reservoirs...), make sure that atmosphere is not suffocating and/or wear recommended equipment.

Occupational exposure limit :

. oil mist : 10mg/m³, for 15 minutes
. oil mist : 5mg/m³, for 8 hours

Hand protection :

Impermeable hydrocarbon-proof gloves.
recommended material: nitrile , neoprene.
The break through times of the same type of glove of different manufacturers can be very different - even if the layer thickness is similar. Therefore the break through times have to be found out from the manufacturer of the protective gloves themselves.
The demands on the gloves are determined by the conditions in practice (e.g. multiple use, mechanical load, temperature, strength and duration of exposition).
Before choosing suitable gloves, it is recommended that the user tests the gloves.

Eye protection :

Goggles, in case of risk of splashing.

Skin and body (other than the hands) protection :

As required, wear a face mask, hydrocarbon-proof clothing, and safety boots (when handling drums).
Don't wear rings, watches or anything similar which can retain the product and may give rise to skin conditions.

Hygienic work practices :

Avoid prolonged and repeated contact with the skin, especially with used or waste product
Immediately remove all soiled or stained clothing.
If the product comes into contact with the skin, wash the affected area immediately and copiously with soap and water.
Do not use abrasives, solvents or fuels.
Do not dry hands with rags that have been contaminated with product.
Do not put product contaminated rags into workwear pockets.
Do not eat, drink or smoke whilst handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance :

Liquid.

Colour :

Yellow to amber.

Odour :

Characteristic.

Density/specific gravity :

894 Kg/m³
Temperature (°C) 15

Flash point :

>= 240 °C (ISO 2592)

Temperature d'auto-inflammation :

> >250°C (ASTM E 659) °C (ASTM E 659)

Safety Data Sheet

Product name : AERO D 100 Page : 4/6
SDS n° :30873-33 Version :4.00 Version of :2003-10-05
This sheet supersedes the one dated :2000-07-26

Comments on autoignition temperature : This temperature may be significantly lower under particular conditions (slow oxidation on finely divided materials...).

Comments on explosivity : Not applicable

Solubility :
- in water : Insoluble and immiscible.
- in organic solvents : Soluble in many common solvents.

Partition coefficient (log Pow) : Log Pow = Log Pow Log Pow (Mineral oil) > 6
Temperature (°C) 20°C

Viscosity : 21.6 mm²/s
Temperature (°C) 100

10. STABILITY AND REACTIVITY

Stability : The product is stable at normal storage, handling and use temperatures.

Conditions to avoid : Heat (temperatures above flash point), sparks, ignition points, flames, static electricity

Materials to avoid : Avoid contact with strong oxidizers

Hazardous decomp. products : Incomplete combustion and thermolysis produces potentially toxic gases such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.

11. TOXICOLOGICAL INFORMATION

Acute toxicity / Local effect :

Inhalation, comments: - Inhalation :
Not classified according to the criteria of classification in force.
Inhalation of high concentrations of vapour or aerosols may cause irritation of the upper respiratory tract.

Skin contact, comments: - Contact with skin :
Not classified according to the criteria of classification in force.

Ingestion, comments: Swallowing the product can cause serious gastric lesions.
In case of ingestion of small quantities, no important effect observed. in case of ingestion of larger amounts: abdominal pain, diarrhea, ...

CHRONIC TOXICITY OR LONG-TERM TOXICITY :

Skin contact : Characteristic skin affections (oil blisters) may develop following prolonged and repeated exposure through contact with stained clothing

Sensitization : To our knowledge, the product does not cause aggravated sensitivity.

Carcinogenicity : During use in engines, contamination of oil with low levels of combustion products occurs.
Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure.
Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water.

12. ECOLOGICAL INFORMATION

Comments about ecotoxicity : Experimental data on the finished product are not available.
It is considered to present a little danger for aquatic life.
no information available for used product



Safety Data Sheet

Product name : AERO D 100 Page : 5/6
SDS n° :30873-33 Version :4.00 Version of :2003-10-05
This sheet supersedes the one dated :2000-07-26

Mobility :

- Air:
there is a slow loss by evaporation.
- Soil:
Given its physical and chemical characteristics, the product generally shows little mobility in the ground.
- Water:
The product is insoluble; it spreads on the surface of the water

13. DISPOSAL CONSIDERATIONS

Waste disposal : Dispose of in a safe manner, in accordance with local regulations.
If need be, collection by an authorised waste contractor and regeneration or incineration at an approved installation.

Waste class : 13 02 05
The waste classification is dependant on the composition of the product at the time of disposal.
The waste classification mentioned here represents only a recommendation. The waste producer is responsible for the correct specification of the waste. The specification of the waste classification should be in arrangement with the authorised waste disposal company.

Disposal of contaminated packaging : Proceed in compliance with the prevailing regulations.

National regulations : L'élimination des boues de nettoyage des réservoirs sera effectuée conformément aux dispositions relatives aux déchets : Décret n° 2007-1467 du 12 octobre 2007 (livre V code de l'environnement).
See wastes nomenclature (JOCE : L 349 from the 31/12/2001).
Law No. 75-633 of 15.07.75 amended, relative to the elimination of wastes and the recovery of materials.
Regulations concerning the collection of used oils:
Decree 79-981 of 21.11.79 and rules of 28.01.99 relative to their collection and the conditions for their elimination.
Law No. 88-1261 of 30.12.88 concerning the import, export and transit of wastes.
Decree No. 77-254 of 08.03.77 relative to the regulation for the dumping of oils and lubricants into surface waters.

14. TRANSPORT INFORMATION

Road (ADR) / Rail (RID) :

Class : Not restricted for transport.

Transport by barge (ADNR) :

Marine (IMO-IMDG) :

Air (ICAO/IATA) :

15. REGULATORY INFORMATION

None

Risk phrases : None

Safety phrases : None

EU directives : Hazardous preparations directive 1999/45/EC modified (Directive 2001/60/EC).
This product fulfills the requirements of the European directives :
76/769/EEC
2000/53/EC
2002/95/EC
2002/96/EC
2003/11/EC



Safety Data Sheet

Product name : AERO D 100 Page : 6/6
SDS n° :30873-33 Version :4.00 Version of :2003-10-05
This sheet supersedes the one dated :2000-07-26

Social Security code : - Art. L 461-6, Art. D.461-1, annexe A, n° 601
Table of occupational illnesses and diseases No. 36

Labor code : - Art. R 241-50, decree of 07.11.1977 (special medical surveillance).

16. OTHER INFORMATION

Revision date: 2003-10-05
Supersedes the data sheet of: 2000-07-26

* Information revised since the previous version of the SDS :

SDS No. : p181-0000123-08

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.