

Safety Data Sheet

Product name :

AZOLLA ZS 22

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SDS n° :31374-33

Version :4.00

Version of :2003-10-24

This sheet supersedes the one dated :2000-10-31

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 : AZOLLA ZS 22

Code No. : 155

Product application : Hydraulic antiwear 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

See local details at end of sheet :

2. 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%

Substances presenting a health hazard	EC No.	CAS No.	Content	Symbol(s)	R-phrases
Alkyl phenol			<0,2 %	N	R-50/53
Zinc alkyl di thiophosphate	272-028-3	68649-42-3	<0,6 %	Xi ,N	R-38, 41, 51/53

See section 16 for explanations of R-phrases :

3. HAZARDS IDENTIFICATION

Health effects : Under normal conditions of use, the product holds no danger of intoxication

Environmental impact : Do not discharge this product into the environment.

Physico-chemical hazards : No specific risk of fire or explosion under normal conditions of use

4. FIRST AID MEASURES

IN CASE OF SERIOUS OR PERSISTENT MANIFESTATIONS, 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

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Skin contact : If the skin is exposed to high-pressure spray, the product may enter the human organism. In all such cases the affected person must be taken to hospital, even if no sign of injury can be detected.
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.

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 since they could help to spread the flames.

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

6. ACCIDENTAL RELEASE MEASURES

See sections 8 and 13.

After spillage / leakage :

- On the soil:
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.
Contain and collect the spilled product with sand or any other inert absorbant material.
- On water:
Floating absorbant material, then mechanical recovery.
If the product is spilled in a river or in the 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).
. Oil leaks in a pressure circuit resulting in a fine inflammable spray (the flammability limit for oil mist is depressed when concentrations of about 45g/m³ are reached).

STORAGE :

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

Storage precautions :

- Suitable:
Store at room 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 oxidising agents.

Packaging materials :

- Recommended:
Use only hydrocarbon-resistant containers, joints, pipes, etc.
Keep in original container if possible.
Otherwise, transfer all indications on the regulatory label to the new container.

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.

Hand protection : Impermeable hydrocarbon-proof gloves.
recommended material: nitrile , neoprene.

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 ring, watch or similar thing which will be able to hold the product and may give rise to some skin diseases.

Hygienic work practices : Avoid prolonged or repeated contact with the skin, particularly with used or waste oil.
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.
Use no abrasives, solvents or fuels.
Do not use cloths stained with the product to dry hands.
Don't put the product-soaked rags in the pockets of working clothes.
Do not eat, drink or smoke while handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Clear liquid

Colour : Yellow.

Odour : Characteristic.

Density/specific gravity : 865 kg/m³
Temperature (°C) 15

Flash point : >= 180 ° C (ASTM D 92)

Temperature d'auto-inflammation : > 250 ° C (ASTM E 659)

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

Comments on explosivity : The lower flammable limit of oil mist is reached at concentrations in the range of 45 g/m³.
Pour point: < -21 °C (ASTM D 97)

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Solubility : Insoluble in water.
Soluble in many common solvents.

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

Viscosity : 22 mm²/s
Temperature (°C) 40

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 CO, CO₂, various hydrocarbons, aldehydes and soot.

11. TOXICOLOGICAL INFORMATION

Acute toxicity / Local effect :

Inhalation, comments: - Inhalation :
Risk is improbable under normal conditions of use
Inhalation of high concentrations of vapour or aerosols may cause irritation of the upper respiratory tract.

Skin contact, comments: - Contact with skin :
Risk is improbable under normal conditions of use.
If the skin is exposed to high-pressure spray, the product may enter the body. In all such cases the affected person must be taken to hospital, even if no sign of injury can be detected

Ingestion, comments: - Ingestion :
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.

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

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

Persistence and degradability : No experimental information about the finished product.
However the "mineral oil" fraction of the new product is intrinsically biodegradable.
Some components of the product may not be biodegradable.

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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 01 10

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

14. TRANSPORT INFORMATION

Not concerned by the transport regulations below.

Road (ADR) / Rail (RID) :

Class : Not restricted for transport.

Transport by barge (ADNR) :

Marine (IMO-IMDG) :

Air (ICAO/IATA) :

15. REGULATORY INFORMATION

Not applicable

Risk phrases : None

Safety phrases : None

EU directives : Hazardous preparations directive 1999/45/EC modified (Directive 2001/60/EC).

Social Security code : Table of occupational illnesses and diseases No. 36
- Art. L.461-6, Art. D.461-1, apendix A, No. 601, No. 15

Labor code : - Art. R 241-50, decree of 07.11.1977.

16. OTHER INFORMATION

Explanations of R-phrases in section 2 :
R-50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R-38 Irritating to skin.
R-41 Risk of serious damage to eye.
R-51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Revision date: 2003-10-24

Supersedes the data sheet of: 2000-10-31

* Information revised since the previous version of the SDS :

SDS No. : 0w-0j2yuiu-78

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.