

MATERIAL SAFETY DATA SHEET: A102

Reference : A102 MSDS

1. PRODUCT: SOME SUBSTANCE OR PREPARATION OF THE SOCIETY:

Product name: ALCATEL 102 OIL
 - Commercial use: vacuum pump lubricant

Supplier: ALCATEL VACUUM TECHNOLOGY FRANCE
 98 avenue de BROGNY
 BP 2069
 74009 ANNECY CEDEX
 FRANCE

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The time schedule: 8 a m to 12 a m and 2 p m to 5 p m

2. INFORMATION ON INGREDIENTS:

Severely refined mineral oil.

Ingredients contributing to risks: None to our knowledge.

Impurities contributing to risks: None.

3. IDENTIFICATION OF HAZARDS:

Harmful effects on health:

- Under standard conditions of use, the mineral oils and other ingredients in this product do not present a risk of acute intoxication. It does not irritate the eyes or the skin and it should not induce sensitisation.

Effects on the environment:

- Experiments conducted on similar new products indicate that it should represent a low risk for life in water and on land and that it is intrinsically biodegradable.
 However, regulations prohibit the discharge of oils and lubricants in the environment.

Physical and chemical hazards:

- No particular risk of inflammation or explosion.

Specific risks:

- None to our knowledge, in normal use.

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Depending on the case: in the event of contact with the skin by a high pressure jet, there is a risk of the product entering the body. The patient must be brought to a hospital, even if there is no obvious wound. 2. **INFORMATION ON INGREDIENTS:**

Severely refined mineral oil.
 Ingredients contributing to risks: None to our knowledge.
 Impurities contributing to risks: None.

4. FIRST AID MEASURES:

- In the event of severe disorders, call a doctor or request immediate medical help.
- Information in the event of:
 - * **Contact with skin:**
After contact with skin, wash immediately with large quantities of water and soap.
 - * **Contact with eyes:**
Wash eyes immediately, separating the eyelids, with large quantities of water for at least 15 minutes and consult a specialist.
 - * **Ingestion:**
No special treatment is generally required.
Do not make the patient vomit to prevent risks of aspiration in the respiratory tract.
 - * **Aspiration:**
If the product is suspected to have been sucked into the lungs (e.g. during vomiting), transport the patient to a hospital immediately.

5. FIRE CONTROL MEASURES:

Flash point: 200 °C

Extinguishing methods:

- Recommended: foam, CO2, powder
- Not recommended: water jet

Specific risks (in the event of fire or explosion):

Incomplete combustion and thermolysis produce gases of varying toxicity such as CO, CO2, various hydrocarbons, aldehydes, etc., and soot. These substances are very dangerous when inhaled.

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Protection of personnel:

- An insulating breathing apparatus must be worn due to the abundant fumes and the dangerous gases.

6. MEASURES TO BE TAKEN IN THE EVENT OF ACCIDENTAL DISPERSION:

Individual precautions:

According to the risks of exposure, wear gloves, goggles, boots and clothing which are impervious to hydrocarbons. Surfaces may become slippery due to spillages of product.

Precautions for environmental protection:

Design installations and take all the measures required to prevent pollution of water or soil. Protect sewage systems from possible spillages, in order to minimise the risks of pollution. In the event of spreading, notify the relevant authorities if the situation cannot be controlled quickly and effectively. Protect environmentally sensitive areas and water resources.

Cleaning methods:

Recovery: using a physical method (pumping, skimming, etc.), contain spillages and recover them using sand or any other inert absorbent material; do not discharge in the sewage system. Send contaminated materials to an approved treatment company.

7. STORAGE AND HANDLING:

Technical measures:

Prevent of personnel exposure: provide sufficient ventilation in the event of a risk of the formation vapours, mists or aerosols. Adopt any measures making it possible to risks of exposure, in particular to oils in use or used oils. Do not store with flammable products (fuel) or with food products.

Prevention of fires and explosions: empty packaging may contain flammable or explosive vapours. Cloths impregnated with product, paper or materials used to absorb spillages represent a fire hazard. Prevent them from accumulating. Eliminate them immediately in complete safety after use.

Precautions:

In order to reduce the fire hazard, design installations to prevent:

- accidental projections of product (e.g. joint break) on hot casings and electrical contacts.
- accidental leakages of oil in a pressurised circuit result in finely pulverised flammable jets (the lower limit of flammability of the oil mist is reached for concentrations of approximately 45 g/m³).

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Prolonged, repeated contact with the epidermis may cause skin infections favoured by small wounds and rubbing against contaminated clothing.

Avoid splashes. After contact with skin, wash immediately with large quantities of water and soap; do not use any abrasive products, solvents or fuels.

Do not wipe hands with cloths that have been used for cleaning.

Remove all contaminated or splashed clothing immediately.

Do not breathe in vapours, fumes or mists.

Do not eat, drink or smoke during use.

Drain the metal machining vessels regularly since the risk generally increases with the wear and degradation of the oil.

Recommendations for use (incompatible materials, etc.)

Prevent contact with strong oxidising agents.

Only use hydrocarbon-resistant containers, joints, pipes, etc...

STORAGE:

Storage conditions:

Recommendations (specific information - capacity limits, quantities, etc. according to national regulations):

Store at ambient temperature away from water, moisture and all sources of ignition.

Keep containers closed when not in use.

Design installations and take all the measures required to prevent pollution of water or soil.

Avoid storage subject to adverse weather conditions.

Incompatible materials:

Dangerous reaction with strong oxidants.

Packaging materials:

Recommendations: only use hydrocarbon-resistant containers, joints and pipes, etc.

The product should preferably be kept in its original packaging; otherwise, mark all the information on the regulatory label onto the new packaging.

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8. EXPOSURE INSPECTION / INDIVIDUAL PROTECTION:

Technical measures (collective, etc.)

Inspection parameters:

Maximum oil mist exposure value (MEV): 10 mg/m³, over 15 minutes
 Average oil mist exposure value (AEV): 5 mg/m³, over 8 hours.

Individual protection equipment:

- Breathing apparatus
- Protection of hands: hydrocarbon-resistant and impervious gloves
- Protection of eyes: goggles in the event of a risk of projections
- Protection of skin and body other than hands: as required, facial screen, boots, hydrocarbon-impervious clothing, safety shoes (handling of drums)

Health measures:

Avoid prolonged, repeated contact with skin, especially with oils in use or used oils. After contact with skin, wash immediately with large quantities of water and soap. Do not use any abrasive products, solvents or fuels.
 In the event of contact with eyes, wash immediately, separating the eyelids, with large quantities of water for at least 15 minutes and consult a specialist.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical state: Liquid
Odour: Characteristic of oil
Flow point: ≤ -12°C (according to standard NFT 60-105)
Flash point: > 200°C (according to standard NFT 60-118)

Self-ignition temperature: > 260 °C according to standard ASTM E 659; this value may be considerably lower under particular conditions (slow oxidation of separated media, etc.)

Limit of flammability in the air: the lower limit of flammability of the oil mist is reached for concentrations of approximately 45 g/m³.

Vapour pressure: Negligible at standard storage, handling and operating temperatures.

Density at 15°C: 0.88/0,89 kg/dm³
Kinematic viscosity at 40°C: 118 mm²/s (cst)

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**Soluble with certain standard organic solvents
 non-soluble and non-miscible in water**

Thermal conductivity **at 20°C:** 0.11 cal/g.°C
 at 100°C: 0.107 cal/g.°C

10. STABILITY AND REACTIVITY:

Product stable at standard storage, handling and operating temperatures.

Dangerous reactions:

Conditions to be avoided: heat (temperatures above flash point), sparks, ignition points, flames, static electricity.

Materials to avoid: strong oxidants

Dangerous breakdown products: incomplete combustion and thermolysis produce gases of varying toxicity such as CO, CO₂, various hydrocarbons, aldehydes, etc. and soot.

11. TOXICOLOGICAL INFORMATION:

According to the evaluation of the toxicological data for the ingredients, the product should have the following characteristics in compliance with the applicable regulatory criteria:

Local effects:

inhalation: high concentrations of vapours or aerosols may irritate the respiratory tract and the mucous membrane.

Chronic or long term toxicity:

inhalation: vapours or aerosols may irritate the respiratory tract and the mucous membrane.

contact with skin: characteristic skin lesions (oil spots) may develop following prolonged and repeated exposure in contact with contaminated clothing.

Specific effects:

This product is formulated using severely refined oils and other ingredients considered to be non-carcinogenic. However, it is recommended to avoid all prolonged and repeated contact with oils in use or used oils, irrespective of their type: they may contain polynuclear aromatics (HPA), some of which have been found to be carcinogenic in animal testing.

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12. ENVIRONMENTAL INFORMATION:

Mobility:

Given the product's physical and chemical characteristics, its mobility in soil is generally low.
 Water: non-soluble

Remanence and degradability:

Experimental data on the finished product not available

Ecotoxicity:

The new product is not considered to be dangerous for land plants. It is considered to represent a low risk for aquatic organisms. No known data on the used product.

13. INFORMATION ON PRODUCT ELIMINATION:

Excess product or waste:

Suitable elimination methods:

The only method authorised in France is recovery by an approved treatment company and regeneration or incineration in an approved installation.

- Handling precautions

Contaminated packaging

Suitable elimination methods:

Send to an approved treatment company.

14 TRANSPORT INFORMATION:

No label and specific regulation needed for transportation

Transportation of the product must conform to ADR regulation rules for road, RID regulation rules for rail, IMDG for the sea and ICAO/IATA for the air

15 REGULATORY INFORMATION:

The product has been classified in compliance with the "all mixture" directive 1999/45/CE and the evolutions.

Also in compliance with 2001/59/CE directive which is the 28th evolution of 67/548/CE directive (toxic products).

This mixture is not classified dangerous for the health upon the 1999/45/CE directive.

This product is not flammable classified

Chart of professional diseases from labor regulation code:

Paragraph L461-1 to article D461-8, part A, n°601.

Chart of professional diseases: n°36.

Labor regulation code: Paragraph R241-50, date: 11.07.77.

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16 OTHER INFORMATION:

Types of use: Lubricant for vacuum pumps
 (for further details, refer to the technical manual).

This sheet completes the technical user manual but does not replace it. The information that it contains is based on our knowledge concerning the product in question on the date of edition of this sheet, and is given in good faith. Users should also pay attention to the risks which may be involved when a product is used for purposes other than that for which it was originally intended.

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