

MATERIAL SAFETY DATA SHEET

In accordance with the SABS ISO 11014/1

Version : I - 01 March 2000

SYNTHETIC GRINDING FLUID Page. 1/5

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Commercial name : SYNTHETIC GRINDING FLUID

1. PRODUCT AND COMPANY IDENTIFICATION.

1.1 Product name : SYNTHETIC GRINDING FLUID

1.2 Commercial Usage : Synthetic water soluble grinding fluid

(for more details, consult the data sheet)

1.3 Supplier : **PETRO REFINED OILS (PTY)LTD**
UNIT 14 NORTH COAST ROAD IND. PARK
36 KRISHNA ROAD
BRIARDENE, DURBAN
☎ : 031 5791738
Fax : 031 5791739
email : steve.petro@mwebbiz.co.za
Emergency number : 082 4902816

2. COMPOSITION/INFORMATION ON INGREDIENTS.

- 2.1 Chemical composition :
Blending of mineral oils, synthetic esters, fatty acid soaps.
- 2.2 Components contributing to hazard : None
- 2.3 Impurities contributing to hazard : None

3. HAZARDS IDENTIFICATION.

- 3.1 human health
- * In normal usage conditions (diluted in water), the components of this product do not present any danger of severe poisoning
 - * inhalation of vapours and/or mists might irritate respiratory tract. Prolonged skin contact will cause defatting and possible irritation. Eye contact might cause irritation
- 3.2 Effects on environment :
- * The experiments carried out on new products similar to this one show that it will present a low risk for aquatic and terrestrial life, and that it will be intrinsically biodegradable. However, legislation forbids the disposal of oils and lubricants into environment.
- 3.3 Physico-chemistry dangers:
- * No risks of fire or explosion in normal using conditions.
- 3.4 Specific risks :
- * None under normal conditions.
- 3.5 Summary of instructions "in case of emergency" :
- * In case of contact with skin or eyes, wash immediately with soap and water.

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4. FIRST AID.

*** General advice :**

Handle in accordance with good industrial hygiene and safety practice.

*** Inhalation :**

If inhalation of mists, fumes or vapours occur causing irritation, move to fresh air. If the symptoms persist, obtain medical advice.

*** Contact with skin :**

Remove immediately adhering matter and wash off with soap and plenty of water.

*** Contact with eyes :**

Wash immediately and thoroughly with water.

*** Ingestion :**

Do not induce vomiting. Rinse mouth and throat with water immediately. Dilute stomach contents with water. Obtain medical aid.

*** Instruction for the doctor :**

Classical effects from hydrocarbons. In case of incident, treat as symptomatic.

5. FIRE-FIGHTING MEASURES

5.1 Flash point **NFT 60118** (open cup) °C : *Not applicable*. SYNTHETIC GRINDING FLUID is non-flammable and non-explosive

5.2 Fire extinction:

*** Appropriate :**

Foam CO₂. Powder. Pressure water.

Water the surfaces in contact with the fire to cool down and protect people from the heat.

*** Not recommended :**

Use of water use from hose pipe

5.3 Specific dangers (in case of fire or explosion) :

*** The incomplete combustion and thermolysis can generate toxic gas such as carbon oxides, ammonia vapours.**

Their inhalation is dangerous

5.4 Protection for the intervening people :

*** Respiratory mask must be worn.**

6. ACCIDENTAL RELEASE MEASURES.

6.1 Personnel precautions :

*** Wear suitable protection equipment and remove contaminated clothes as soon as possible.**

6.2 Environmental protection :

*** Create installations which will prevent any pollution of water and soil.**

6.3 Cleaning methods :

*** Spillages should be dyked and absorbed in an inert solid such as sand, clay or vermiculite and transferred to heavy duty polythene bags or containers.**

*** These should be disposed of through specialist waste disposal contractors in accordance with local regulations.**

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7. HANDLING AND STORAGE

7.1 Handling :

- * As with general chemicals, it is recommended that normal protective clothing, including overalls, rubber gloves and goggles, should be worn when handling SYNTHETIC GRINDING FLUID and inhalation should be avoided.
- * Do not drink or eat while handling the product.

7.2 Storage :

- * Store at normal temperature. Avoid contact with food.
- * Temperature of storage : -5°C to $+50^{\circ}\text{C}$.
- * Keep in original drums and close the drums when not in use.
- * In case of decanting, use materials resistant to hydrocarbons (Varnished steel, polyethylene)
- * The storage must avoid any contact with water or soil

8. EXPOSURE CONTROLS / PERSONAL PROTECTION.

8.1 Collective measures :

- * Limit exposure value to oil mists (L.E.V) : $10\text{mg}/\text{m}^3$ for 15 minutes.
- * Average exposure value to oil mists (A.E.V) : $5\text{mg}/\text{m}^3$ for 8 hours.
- * Ventilation : see point 4/ inhalation.

8.2 Individual measures :

- * Protection of hands by wearing gloves which resist hydrocarbons.
- * Protection of eyes by wearing goggles.
- * Full body protection by wearing security shoes, overalls (long sleeved)

8.3 Hygienic measures :

- * Avoid prolonged contact with skin or eyes. Do not use solvents, abrasive products, parafine or contaminated clothes.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance : Blue liquid

9.2 Odour : None

9.3 Specific gravity at 15°C (kg/m^3) : 1000

9.4 Solubility : yes

* In water : Yes

* In hydrocarbons : non-soluble

9.5 Ph :

* Concentrate : 9.25

* Dilution at 3 % : 30:1

9.6 Viscosity (Kinematic at 40°C in mm^2/s) :

9.7 Explosive characteristics :

9.7.1 Limits of inflammation in air : not concerned

9.7.2 Combustive properties : none.

9.7.3 Flash point (open cup) **NFT 60118** in $^{\circ}\text{C}$: non concerned

9.7.4 Vapour pressure : negligible at normal storage and usage temperatures

9.8 Other informations :

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10. STABILITY AND REACTIVITY.

10.1 Stability :

- * Product stable at usual temperatures of storage, handling and usage.

10.2 Dangerous reactions :

- * Avoid all contacts with strong oxydants and excessive heating

10.3 Products of decomposition :

- * The incomplete combustion and thermolyse can generate toxic gas such as carbon oxydes, ammonia vapours. Their inhalation is dangerous

11. TOXICOLOGIC INFORMATION.

11.1 Toxicity :

In normal usage conditions, the components of this product do not present any danger of severe poisoning

11.2 Local effects : In case of accidental, frequent or prolonged exposure.

- * Inhalation : irritant.
- * Skin irritation : positive if prolonged contact.
- * Contact with eyes : irritation.
- * Ingestion : low toxicity due to low alcalinity.

11.3 Specific effects :

- * This product is blended with highly refined mineral oils and other chemicals which are not considered as carcinogenics.

12. ECOLOGICAL INFORMATION.

12.1 Mobility :

- * In the soil, because of it physico-chemical characteristics, the product is not mobile

12.2 Persistence and degradability :

- * There is an absence of information regarding the complete product, but experimental information on the « mineral » components of the product show that they are intrinsically biodegradable. However, some components are not biodegradable.
- * DCO : mg O2/l.
- * DBO : mg O2/l.

12.3 Ecotoxicity : Aquatic toxicity data on base oils indicate LC50 values of >1000 mg/l. Substances may not meet criteria for ready degradability and components have log P_{ow} >3.9. However, chronic toxicity studies show no long-term hazard to the aquatic environment.

13. DISPOSAL CONSIDERATION .

13.1 Used products :

- * The only recommended disposal is collection by an approved waste company, and the elimination by burning (evapo-incineration) in an approved installation.
- * Containers : give to a waste company.

13.2 legislation :

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14. TRANSPORT CONSIDERATIONS.

Not submitted to legislation regarding dangerous substances

14.1 International legislation :

14.1.1 By terrestrial means (rail, road) :
RID/ADR

14.1.2 By fluvial means :
ADNR

14.1.3 By shipping :
OMI/MDG

14.1.4 By aerial ways :
OACI/IATA

14.1.5 N° ONU

14.2 Other legal dispositions :

14.2.1

14.2.2 Others :

15. INFORMATION REGARDING RÉGULATIONS.

15.1 CEE Regulations :

* Label CE *Not concerned*
Risk :
Phrases R :
Phrases S :
* Others

16. OTHER INFORMATION.

Replace the information supplied with the data of :

The information displayed in this MSDS is intended to assist in the use of the above product without risk to safety or health and is based on current knowledge and experience. The data does not signify any warranty with regard to the product's properties.