

Safety Data Sheet

| Commercial name : | TOTAL FLUIDE SYN FE | Page :1/8 |
|--|--|-------------------|
| SDS N° P181-0000480-71 | Version : 1 | Date : 26/01/2000 |
| | | |
| PRODUCT LABEL | | |
| LABELLING (standard or EU) | | |
| Symbols : | None | |
| R phrases : | None | |
| S phrases : | None | |
| TRANSPORT LABELLING : | Not applicable | |
| 1 Sector on an analysis of the sector of the | ······································ | |
| 1. Substance or preparation and com | | |
| Product name: | TOTAL FLUIDE SYN FE | |
| Commercial application: | Transmission oil | |
| Supplier: | | |
| Company name: | TOTAL RAFFINAGE DISTRIBUTION | |
| Address: | Tour TOTAL bât.E-24 cours Michelet | |
| | 92069 PARIS LA DEFENSE 10 | |
| | FRANCE | |
| Telephone: | 01.41.35.40.00 | |
| Telex/fax: | Telex : 615 700F | |
| | Fax : 01.41.35.84.71 | |
| Emergency phone numbers in France: | - | |
| | 01.40.37.04.04 / HOPITAL FERNAND WIDAL 200, rue du faubourg St Denis | |
| | 75475 PARIS Cédex 10 | |
| | 04.72.11.69.11 / HOPITAL EDOUARD HERRIOT 5, Place d'Arsonval | |
| | 69437 LYON Cédex 3 | |
| | - ORFILA (FRANCE) : +33.(1) 45.42.59.59 | |
| | - BELGIUM : +32.(0) 70/245.245 | |
| | | |

2. Composition / information on ingredients

| PREPARATION | |
|---------------------------------------|---|
| Chemical nature: | Petroleum-derived product made from severely refined mineral oils which PCA content |
| | measured by IP 346 method is $<$ 3 %, with additives |
| Ingredients contributing to hazards : | None to our knowledge, in normal use |
| Impurities contributing to hazards: | None to our knowledge, in normal use |

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| 3. Hazard identification | |
|-----------------------------------|--|
| Most important hazards : | |
| - Adverse human health effects : | The product contains no eye or skin irritants and is not considered to be allergenic |
| | Under normal conditions of use, the mineral oils used in this product present no risk of serious |
| | intoxication |
| - Environmental effects : | Experiments with similar virgin products indicate little danger for aquatic or land-living |
| | organisms and intrinsic biodegradability |
| | However, the discharge of oil and lubricants into the environment is prohibited by law |
| - physical and chemical hazards : | No specific risk of fire or explosion |
| Specific hazards : | None to our knowledge |
| Product classification : | None according to the amended 88/379/EEC directive |
| Emergency overview : | 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 |

4. First-aid measures

| IN CASE OF SERIOUS MANIFESTATIONS | CALL IN A DOCTOR OR EMERGENCY MEDICAL CARE |
|-----------------------------------|---|
| In case of : | |
| - Inhalation : | In case of exposure to heavy concentrations of vapour, fumes or spray, transport the person into |
| | fresh air, keep warm and allow to rest |
| | This risk exists only for oils containing a high proportion of very light distillates, or in the case |
| | of the formation of mist, or if the product is heated to a high temperature. |
| | In these cases, irritation of the mucous membrane in the mouth and the intestinal tract may be |
| | noted |
| - Contact with the skin : | If the product comes into contact with the skin, wash the affected area immediately and |
| | repeatedly with soap and water. |
| | 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 |
| - Contact with the eyes : | Keep eyes open and rinse immediately and repeatedly with water for at least 15 minutes, and |
| | consult a specialist |
| - Ingestion : | Generally no special treatment is necessary. Do not induce vomiting to avoid the risk of |
| | aspiration into the respiratory tract |
| - 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 |
| Instructions for the doctor: | In case of incidents, treat symptoms as required |
| | |

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| Flash point: | See section 9 |
|---|--|
| Fire extinguishers: | |
| - suitable: | Foam, CO2, powder |
| - not suitable: | Water under strong pencil like jet forbidden |
| Specific hazards: | Incomplete combustion and thermolysis produce toxic gases such as CO, CO2, various |
| | hydrocarbons, aldehydes and soot. These are highly dangerous if inhaled |
| Firefighter protection: | An insulated breathing apparatus must be worn in confined premises with heavy concentrations |
| | of fumes and gases |
| Accidental release measures | |
| Precautions for personal protection: | Hydrocarbon-proof clothing, gloves, goggles and boots should be worn, as applicable. Surfaces |
| | on which the product has been spilled may become slippery |
| Precautions for environmental protection: | Plan the installations and take all necessary measures to prevent water and ground pollution |
| | Set up sewer protection to reduce the risk of pollution through accidental release |
| | In the event of a major spill, inform the competent authorities if the situation cannot be brought |
| | under control rapidly and efficiently |
| | Protect environmentally sensitive areas and water resources |
| Clean-up methods: | |
| - Recovery: | Use mechanical means such as pumps and skimmers |
| | Contain and collect the spilled product with sand or any other inert material. Do not discard |
| | into drains or sewers |
| - Disposal: | Remit the soiled material to an authorized waste collector |
| L | |
| - | |
| Handling and storage | |
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| Handling and storage HANDLING - Technical measures : | Provide adequate ventilation in case of the potential formation of vapour mist or spray |
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| Handling and storage HANDLING - Technical measures : . prevention of user exposure | Take all measures to reduce the risk of exposure, particularly to used or waste lubricants Keep away from flammable material; keep away from food and beverages |
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| | Avoid prolonged or repeated skin contact with the product and product-stained | clothing, which |
| | may lead to skin rashes and eruptions, particularly in case of open cuts or scratc | hes |
| | Avoid splashes and spills | |
| | If the product has been in contact with the skin, wash the affected area immedia | tely and |
| | repeatedly with soap and water | |
| | Use no abrasives, solvents, or petroleum spirits | |
| | Do not use cloths stained with the product to dry hands | |
| | If clothing becomes stained, change immediately | |
| | Do not inhale vapours, fumes or mist | |
| | Do not eat, drink or smoke while handling the product | |
| - Safe handling advice : | Avoid contact with strong oxidizing agents | |
| | Use only hydrocarbon-resistant containers, joints, pipes etc | |
| STORAGE | | |
| - Technical measures : | Not applicable | |
| - Storage conditions : | | |
| . Suitable | Store at room temperature, protected against contact with water and moisture, a | and away from |
| | any source of ignition | |
| | Keep containers clearly labelled and closed when not in use | |
| | Make the necessary arrangements and take all measures to prevent water and gr | round pollution |
| . 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 Otherwise, transfer all indications on the regulatory label to the new container

8. Exposure controls / personal protection

| Engineering measures: | When working on tanks or reservoirs, take all usual precautions |
|-------------------------------|--|
| - Control parameters: | |
| . Threshold values | . Maximum tolerance level for exposure to oil mist : 10mg/m3, for 15 minutes |
| | . Mean tolerance level for exposure to oil mist : 5mg/m3, for 8 hours |
| Personal protective equipment | |
| - Hand protection: | Impermeable hydrocarbon-proof gloves |
| - Eye protection: | Goggles, in case of splashing |
| - Skin and body protection: | As required, wear a face mask, hydrocarbon-proof clothing, and safety boots (when handling |
| | drums) |
| Industrial hygiene | Avoid prolonged and repeated contact with the skin, especially with used or waste lubricants |
| | If the product comes into contact with the skin, wash the affected area immediately and |
| | repeatedly with soap and water |

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Use no abrasives, solvents or petroleum spirit

If the product comes into contact with the eyes, keep eyes open and rinse immediately and repeatedly with water for at least 15 minutes, and consult a specialist

9. Physical and chemical properties

| Appearance: | |
|----------------------------|--|
| - Physical state: | Clear liquid |
| - Colour: | Red |
| Odour: | Characteristic |
| | Characteristic odour of oil |
| pH: | Not applicable |
| Specific temperatures | |
| of change in state | |
| Flash point: | >= to 150°C (ISO 2592) |
| Auto-ignition temperature: | $> 250^{\circ}$ C (ASTM E 659). This temperature may be significantly lower under particular |
| | conditions (oxidation on high surface areas) |
| Explosion limits: | Not applicable |
| Flammability limit in air: | The flammability limit for oil mist is depressed when concentrations of about 45g/m3 are |
| | reached |
| Vapour pressure: | Negligible at normal temperatures of storage, handling and use |
| Density: | About 839kg/m3 at 15°C |
| Solubility: | |
| - in water: | Insoluble and immiscible |
| - in organic solvents: | Soluble in many common solvents |
| Other: | |
| - Viscosity: | Kinematic viscosity at 100°C: about 7.5 mm ² /s |

10. Stability and reactivity

 Stability:
 The product is stable under normal temperatures of storage, handling and use

 Dangerous reactions:

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

 - Materials to avoid:
 Strong oxidizing agents

 Dangerous decomposition products:
 Incomplete combustion and thermolysis produce more or less toxic gases such as CO, CO2, various hydrocarbons, aldehydes and soot

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11. Toxicological information These indications are based on the toxicological data for product constituents, evaluated in accordance with current regulations ACUTE TOXICITY - Inhalation: Risk is improbable under normal conditions of use - Contact with the skin: Harmless - Ingestion: Harmless LOCAL EFFECTS - Inhalation: Strong concentrations of vapour and spray may be irritating for the respiratory tract and for mucous membranes - Contact with the skin: Not irritating - Contact with the eyes: Not irritating SENSITIZATION - Contact with the skin: Not allergenic CHRONIC TOXICITY OR LONG-TERM TOXICITY - Inhalation: Vapours and aerosol can irritate the respiratory tract and mucous membranes - Contact with the skin: Characteristic skin affections (oil blisters) may develop following prolonged and repeated exposure through contact with stained clothing SPECIFIC EFFECTS - Carcinogenecity : The product is formulated from ingredients considered to be non-carcinogenic Not carcinogenic

 This product is formulated from refined bases and other ingredients considered to be non-carcinogenic

 12. Ecological information

 Mobility:

 - Ground:
 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:
 Experimental data on the finished product are not available

 . The "mineral oil" portion of the virgin product is intrinsically biodegradable

Ecotoxicity:

The virgin product is considered to present no danger for land-growing organisms and little

danger for aquatic life. No data are currently available for the used product

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| - Disposal: | |
|---|---|
| 1 | . The only method authorized in France is collection by an authorized waste contractor and |
| | regeneration or incineration in an approved installation |
| Used packaging: | |
| - Disposal methods: | . Transmit to an authorized waste contractor for disposal |
| Local regulations: | . Regulation concerning the discharge of oil and lubricants into surface, underground and sea |
| | waters: decrees N° 73-218 of 23.02.1973 and N° 77-254 of 08.03.1977, circulars of |
| | 14.01.1977 and 04.11.1980 |
| | . Rgulation concerning waste: law N° 75-633 of 15.07.1975 and decree N° 77-974 of |
| | 19.08.1977, decree N° 79-981 of 21.11.1979 amended by decrees N° 85-387 of 29.03.1985, |
| | N° 89-192 of 24.03.1989 and N° 89-648 of 31.08.1989, regulating the recovery of used oils |
| | Law N° 88-1261 of 30.12.1988; decree N° 90-267 of 23.03.1990 concerning the import, |
| | export and transit of hazardous waste; |
| | Law N° 92-646 of 13.07.1992 concerning the disposal of waste and the recycling of waste |
| | materials |
| . Transport information | |
| INTERNATIONAL REGULATIONS | |
| - by land (railroad/road): | Not applicable |
| - by sea: | Not applicable |
| - by air: | Not applicable |
| - UN classification number: | Not applicable |
| OTHER REGULATIONS | |
| - French regulations: | |
| . by land : | Not applicable |
| | |
| | |
| . Regulatory information | |
| • Regulatory information EUROPEAN REGULATIONS | |
| | |
| EUROPEAN REGULATIONS - EC labelling . Symbols | None |
| EUROPEAN REGULATIONS - EC labelling . Symbols . R Phrases | None |
| EUROPEAN REGULATIONS - EC labelling . Symbols . R Phrases . S Phrases | |
| EUROPEAN REGULATIONS - EC labelling . Symbols . R Phrases . S Phrases FRENCH REGULATIONS | None |
| EUROPEAN REGULATIONS - EC labelling . Symbols . R Phrases . S Phrases | None None Table of occupational illnesses and diseases: N° 36 - 84 |
| EUROPEAN REGULATIONS - EC labelling . Symbols . R Phrases . S Phrases FRENCH REGULATIONS | None |

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16. Other information

Date of current version:26/01/2000Supersedes previous Safety Data Sheet of:

"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 ou knowledge at the date indicated hereabove.

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 or her 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 fulfill 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."

End of document. Number of pages :8