

Commercial name :	TOTAL QUARTZ 9000 0W40	Page :1/8
SDS N° P181-0000194-79	Version : 2	Date : 30/04/1997
		Supersedes SDS of : 30/04/1997

#### PRODUCT LABEL

LABELLING (standard or EU)	
Symbols :	None
R phrases :	None
S phrases :	None
TRANSPORT LABELLING :	Not applicable

#### 1. Substance or preparation and company identification

Product name:	TOTAL QUARTZ 9000 0W40
Commercial application:	Synthetic-base multigrade oil for gasoline and diesel engines
Supplier:	
Company name:	TOTAL RAFFINAGE DISTRIBUTION
Address:	Tour TOTAL bât.C-24 cours Michelet
	92069 PARIS LA DEFENSE 10
	FRANCE
Telephone:	01.41.35.40.00
Telex/fax:	Telex : 615 700F
	Fax :
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) : 01.45.42.59.59

#### 2. Composition / information on ingredients

PREPARATION	
Chemical nature:	Product with a synthetic base
Ingredients contributing to hazards :	Zinc alkyl di-thiophosphate (Xi ; R 41) about 1.8 %
Impurities contributing to hazards:	None to our knowledge, in normal use

#### 3. Hazard identification

Most important hazards :

- Adverse human health effects :

Under normal conditions of use, the mineral oils used in this product present no risk of serious intoxication

Commercial name :	TOTAL QUARTZ 9000 0W40	Page :2/8
SDS N° P181-0000194-79	Version : 2	Date : 30/04/1997
5051(110100001)+7)	Version . 2	Supersedes SDS of : 30/04/199'
- 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	er the human organism. In all
	such cases the affected person must be taken to hospital, even if ne	o sign of injury can be
	detected	
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 sp	pray, transport the person into
	fresh air, keep warm and allow to rest	
	This risk exists only for oils containing a high proportion of very l	light distillates, or in the case
	of the formation of mist, or if the product is heated to a high tempe	-
	In these cases, irritation of the mucous membrane in the mouth an	
	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	er the human organism. In all
	such cases the affected person must be taken to hospital, even if no	
	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 vomiti	ng to avoid the risk of
	aspiration into the respiratory tract	ing to a road the risk of
- Aspiration :	If the product is believed to have entered the lungs (in case of von	niting for example) take the
· spinanon ·	person to hospital for immediate care	

### 5. Fire-fighting measures

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

Commercial name :	TOTAL QUARTZ 9000 0W40 Pag	ge :3/8
SDS N° P181-0000194-79	Version : 2 Date : 30/04	/199′
	Supersedes SDS of : 30/04	/199′
Firefighter protection:	An insulated breathing apparatus must be worn in confined premises with heavy concentrations of fumes and gases	
6. 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	
7. Handling and storage		
HANDLING		
- Technical measures :		
. prevention of user exposure	Provide adequate ventilation in case of the potential formation of vapour, mist or spray	
	Take all measures to reduce the risk of exposure, particularly to used or waste lubricants	
	Keen away from flowmahle material lease away from food and havenage	
	Keep away from flammable material; keep away from food and beverages	
. Prevention of fire and explosion	Empty containers may contain flammable or explosive vapours	
. Prevention of fire and explosion		
. Prevention of fire and explosion	Empty containers may contain flammable or explosive vapours	
. Prevention of fire and explosion	Empty containers may contain flammable or explosive vapours Product-impregnated cloths and paper or material used to mop up spills can constitute a fire	
. Prevention of fire and explosion - Precautions :	Empty containers may contain flammable or explosive vapours Product-impregnated cloths and paper or material used to mop up spills can constitute a fire hazard. Do not allow these to accumulate in a pile	
-	Empty containers may contain flammable or explosive vapours Product-impregnated cloths and paper or material used to mop up spills can constitute a fire hazard. Do not allow these to accumulate in a pile Discard these with all safety precautions immediately after use	
-	Empty containers may contain flammable or explosive vapours Product-impregnated cloths and paper or material used to mop up spills can constitute a fire hazard. Do not allow these to accumulate in a pile Discard these with all safety precautions immediately after use Reduce fire hazards by arranging and setting up machinery and equipment so as to :	
-	Empty containers may contain flammable or explosive vapours Product-impregnated cloths and paper or material used to mop up spills can constitute a fire hazard. Do not allow these to accumulate in a pile Discard these with all safety precautions immediately after use Reduce fire hazards by arranging and setting up machinery and equipment so as to : . avoid accidental spills and splashes onto hot machine parts and electrical contacts	
-	Empty containers may contain flammable or explosive vapours Product-impregnated cloths and paper or material used to mop up spills can constitute a fire hazard. Do not allow these to accumulate in a pile Discard these with all safety precautions immediately after use Reduce fire hazards by arranging and setting up machinery and equipment so as to : . avoid accidental spills and splashes onto hot machine parts and electrical contacts . prevent oil leaks in pressure circuits resulting in a fine inflammable spray (the flammability	
-	Empty containers may contain flammable or explosive vapours Product-impregnated cloths and paper or material used to mop up spills can constitute a fire hazard. Do not allow these to accumulate in a pile Discard these with all safety precautions immediately after use Reduce fire hazards by arranging and setting up machinery and equipment so as to : . avoid accidental spills and splashes onto hot machine parts and electrical contacts . prevent oil leaks in pressure circuits resulting in a fine inflammable spray (the flammability limit for oil mist is depressed when concentrations of about 45 g/m3 are reached)	
-	Empty containers may contain flammable or explosive vapours Product-impregnated cloths and paper or material used to mop up spills can constitute a fire hazard. Do not allow these to accumulate in a pile Discard these with all safety precautions immediately after use Reduce fire hazards by arranging and setting up machinery and equipment so as to : . avoid accidental spills and splashes onto hot machine parts and electrical contacts . prevent oil leaks in pressure circuits resulting in a fine inflammable spray (the flammability limit for oil mist is depressed when concentrations of about 45 g/m3 are reached) Avoid prolonged or repeated skin contact with the product and product-stained clothing, which	
-	Empty containers may contain flammable or explosive vapours Product-impregnated cloths and paper or material used to mop up spills can constitute a fire hazard. Do not allow these to accumulate in a pile Discard these with all safety precautions immediately after use Reduce fire hazards by arranging and setting up machinery and equipment so as to : . avoid accidental spills and splashes onto hot machine parts and electrical contacts . prevent oil leaks in pressure circuits resulting in a fine inflammable spray (the flammability limit for oil mist is depressed when concentrations of about 45 g/m3 are reached) 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 scratches	
	Empty containers may contain flammable or explosive vapours Product-impregnated cloths and paper or material used to mop up spills can constitute a fire hazard. Do not allow these to accumulate in a pile Discard these with all safety precautions immediately after use Reduce fire hazards by arranging and setting up machinery and equipment so as to : . avoid accidental spills and splashes onto hot machine parts and electrical contacts . prevent oil leaks in pressure circuits resulting in a fine inflammable spray (the flammability limit for oil mist is depressed when concentrations of about 45 g/m3 are reached) 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 scratches Avoid splashes and spills	
	Empty containers may contain flammable or explosive vapours Product-impregnated cloths and paper or material used to mop up spills can constitute a fire hazard. Do not allow these to accumulate in a pile Discard these with all safety precautions immediately after use Reduce fire hazards by arranging and setting up machinery and equipment so as to : . avoid accidental spills and splashes onto hot machine parts and electrical contacts . prevent oil leaks in pressure circuits resulting in a fine inflammable spray (the flammability limit for oil mist is depressed when concentrations of about 45 g/m3 are reached) 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 scratches Avoid splashes and spills If the product has been in contact with the skin, wash the affected area immediately and	
	Empty containers may contain flammable or explosive vapours Product-impregnated cloths and paper or material used to mop up spills can constitute a fire hazard. Do not allow these to accumulate in a pile Discard these with all safety precautions immediately after use Reduce fire hazards by arranging and setting up machinery and equipment so as to : . avoid accidental spills and splashes onto hot machine parts and electrical contacts . prevent oil leaks in pressure circuits resulting in a fine inflammable spray (the flammability limit for oil mist is depressed when concentrations of about 45 g/m3 are reached) 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 scratches Avoid splashes and spills If the product has been in contact with the skin, wash the affected area immediately and repeatedly with soap and water	

Commercial name :	TOTAL QUARTZ 9000 0W40	Page :4/8
SDS N° P181-0000194-79	Version : 2	Date : 30/04/1997
		Supersedes SDS of : 30/04/1997
	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	
- Sale handling advice :	0 0 0	
	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, 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 preve	ent water and ground 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
		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:	
- Colour:	

Clear liquid Yellow to amber

### TOTAL QUARTZ 9000 0W40

SDS N° P181-0000194-79

Commercial name :

Version : 2

Page :5/8 Date : 30/04/1997

Supersedes SDS of : 30/04/1997

Odour:	Characteristic odour of oil
pH:	Not applicable
Specific temperatures	
of change in state	
Flash point:	>= to 210°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 848kg/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 13 mm <sup>2</sup> /s
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,
Dungerous decomposition products.	medinplete combustion and metholysis produce more of less tokie gases such as e.o., e.o.2,

#### 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

### Commercial name : TOTAL QUARTZ 9000 0W40

SDS N° P181-0000194-79

Version : 2

Page :6/8 Date : 30/04/1997

Supersedes SDS of : 30/04/1997

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 :	Not carcinogenic	
	This product is formulated from refined bases and other ingredients considered to be non-carcinogenic	
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 . The "mineral oil" portion of the virgin product is intrinsically biodegradable	
Persistence and degradability:		
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	
Disposal considerations Waste: - Disposal:	. The only method authorized in France is collection by an authorized waste contractor and	
-	. The only method authorized in France is collection by an authorized waste contractor and regeneration or incineration in an approved installation	
Waste: - Disposal:	. The only method authorized in France is collection by an authorized waste contractor and regeneration or incineration in an approved installation	
Waste:		
Waste: - Disposal: Used packaging:	regeneration or incineration in an approved installation	
Waste: - Disposal: Used packaging: - Disposal methods:	regeneration or incineration in an approved installation . Transmit to an authorized waste contractor for disposal	
Waste: - Disposal: Used packaging: - Disposal methods:	regeneration or incineration in an approved installation . Transmit to an authorized waste contractor for disposal . Regulation concerning the discharge of oil and lubricants into surface, underground and sea	
Waste: - Disposal: Used packaging: - Disposal methods:	regeneration or incineration in an approved installation . Transmit to an authorized waste contractor for disposal . 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	
Waste: - Disposal: Used packaging: - Disposal methods:	regeneration or incineration in an approved installation . Transmit to an authorized waste contractor for disposal . 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	
Waste: - Disposal: Used packaging: - Disposal methods:	regeneration or incineration in an approved installation . Transmit to an authorized waste contractor for disposal . 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	
Waste: - Disposal: Used packaging: - Disposal methods:	regeneration or incineration in an approved installation . Transmit to an authorized waste contractor for disposal . 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,	
Waste: - Disposal: Used packaging: - Disposal methods:	<ul> <li>regeneration or incineration in an approved installation</li> <li>Transmit to an authorized waste contractor for disposal</li> <li>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</li> <li>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</li> </ul>	
Waste: - Disposal: Used packaging: - Disposal methods:	regeneration or incineration in an approved installation . Transmit to an authorized waste contractor for disposal . 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,	

	Commercial name :	TOTAL QUARTZ 9000 0W40	Page :7/8
	SDS N° P181-0000194-79 Version : 2	Date : 30/04/1997	
		Supersedes SDS of : 30/04/1997	
14.	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	
15.	Regulatory information		
	EUROPEAN REGULATIONS		
	- EC labelling		
	. Symbols	None	
	. R Phrases	None	
	. S Phrases	None	
	FRENCH REGULATIONS		
	- Social Security code :	Table of occupational illnesses and diseases: N° 15 - 36 - 84	
		. Art. L.461-6, Art. D.461-1, Appendix A, N° 15 - 601 - 603 - 612	
	- Labour code :	. Art. R.241-50, Order of 11.07.1977	
16.	Other information		
	Date of current version:	30/04/1997	
	Supersedes previous Safety Data Sheet of:	30/04/1997	

"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.

Commercial name :

### TOTAL QUARTZ 9000 0W40

Version: 2

SDS N° P181-0000194-79

Page :8/8

Date : 30/04/1997

Supersedes SDS of : 30/04/1997

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