



SAFETY DATA SHEET

According to Canadian Hazardous Products Regulations (HPR) (SOR/2015/17)

SDS # : 081913

QUARTZ 9000 ENERGY 0W-40

Date of the previous version: not applicable

Revision Date: 2018-10-03

Version 1

1. IDENTIFICATION

Product identifier

Product name QUARTZ 9000 ENERGY 0W-40

Other means of identification

Product Code(s) 081913

Number BY3
Substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Identified uses Motor oil

Uses advised against Do not use for any purpose other than the one for which it is intended.

Details of the supplier of the safety data sheet

Supplier TOTAL CANADA INC.
220, LAFLEUR
LASALLE, QUEBEC
H8R 4C9
Tel: (514) 595-7579
Fax: (514) 595-5950

Contact Point service HSE

E-mail Address ProductSafety@total.com

Emergency telephone number

Emergency telephone 1-800-463-3955
Company Phone Number +1 866 928 0789 (24h/24, 7d/7)
+1 215 207 0061 (24h/24, 7d/7)

2. HAZARDS IDENTIFICATION

Classification

Specific target organ toxicity (repeated exposure) - Category 2

Label elements



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WARNING

Hazard Statements

May cause damage to organs through prolonged or repeated exposure

Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

• Get medical advice/attention if you feel unwell

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

Physical-Chemical Properties

Contaminated surfaces will be extremely slippery.

Environmental properties

The product may form an oil film on the water surface that may stop the oxygen exchange.
Should not be released into the environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical nature

The product is made from refined mineral base oils and synthetic oils.

Chemical Name	EC-No	CAS-No	Weight %
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	276-738-4	72623-87-1	10-<20
Reaction products of 1-decene, 1-dodecene and 1-octene, hydrogenated	605-315-2	163149-28-8	10-<20
Reaction products of 1-decene, hydrogenated	-	68649-12-7	10-<20
10-ethyl-12-heptyl-11,13-dimethyltricosane; 8-ethyl-9,11-dimethyl-10-nonylnonadecane	604-767-8	151006-60-9	10-<20

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Distillates (petroleum), hydrotreated heavy paraffinic	265-157-1	64742-54-7	3-<5
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	276-737-9	72623-86-0	1-<3
bis(nonylphenyl)amine	253-249-4	36878-20-3	1-<2.5
C14-16-18 Alkyl phenol	931-468-2	^	1-<3

Additional information Product containing mineral oil with less than 3% DMSO extract as measured by IP 346

4. FIRST AID MEASURES**First aid measures for different exposure routes**

General advice	IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse.
Inhalation	Remove casualty to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration.
Ingestion	Clean mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.
Protection of First-aiders	First aider needs to protect himself. See Section 8 for more detail. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Most important symptoms/effects, acute and delayed

Skin contact	Not classified based on available data. May produce an allergic reaction.
Eye contact	Not classified based on available data.
Inhalation	Not classified based on available data. Inhalation of vapors in high concentration may cause irritation of respiratory system.
Ingestion	Not classified based on available data. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Symptoms	No information available.

Indication of immediate medical attention and special treatment needed, if necessary

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Notes to physician

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Carbon dioxide (CO₂). ABC powder. Foam. Water spray or fog.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

Special Hazard Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration. Combustion products include sulphur oxides (SO₂ and SO₃) and Hydrogen sulphide H₂S, Mercaptans, Nitrogen oxides (NO_x), Phosphorous oxides, Zinc oxides.

Explosion Data

Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Special protective equipment for fire-fighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Evacuate non-essential personnel.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

General Information Do not touch or walk through spilled material. Contaminated surfaces will be extremely slippery. Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.

Other information See Section 12 for additional information.

Environmental precautions

General Information Do not allow material to contaminate ground water system. Prevent entry into waterways, sewers, basements or confined areas. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for containment Dike to collect large liquid spills. If necessary dike the product with dry earth, sand or similar non-combustible materials.

Methods for cleaning up Dispose of contents/container in accordance with local regulation. In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations.

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7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing.

Prevention of fire and explosion Take precautionary measures against static discharges.

Hygiene measures Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Regular cleaning of equipment, work area and clothing is recommended. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep away from food, drink and animal feedingstuffs. Keep in a bunded area. Keep container tightly closed. Keep preferably in the original container. Otherwise reproduce all indication of the regulation label on the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Store at room temperature. Protect from moisture.

Materials to Avoid Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits Mineral oil mist:
USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH (TLV) TWA 5 mg/m³ (highly refined).

Legend See section 16

Exposure controls

Engineering Measures Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Individual protection measures, such as personal protective equipment

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General Information

Protective engineering solutions should be implemented and in use before personal protective equipment is considered. The personal protective equipment (PPE) recommendations apply to the product ITSELF. In case of mixtures or formulations, it is suggested that you contact the relevant PPE suppliers.

Eye/face protection

Safety glasses with side-shields.

Skin and body protection

Wear suitable protective clothing. Protective shoes or boots.

Hand Protection

Hydrocarbon-proof gloves: Fluorinated rubber. Nitrile rubber. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Respiratory protection

None under normal use conditions. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Respirator with combination filter for vapor/particulate. Warning ! filters have a limited use duration. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Appearance

limpid

Color

yellow

Physical State @20°C

liquid

Odor

Characteristic

Odor Threshold

No information available

Property

Values

Remarks

Method

pH

Not applicable

Melting point/range

Not applicable

Boiling point/boiling range

No information available

Flash point

> 200 °C
> 392 °F

Cleveland Open Cup (COC)
Cleveland Open Cup (COC).

Evaporation rate

No information available

Flammability Limits in Air

upper

No information available

Lower

No information available

Vapor Pressure

No information available

Vapor density

No information available

Relative density

0.850

@ 15 °C

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Density	850 kg/m ³	@ 15 °C	
Water solubility		Insoluble	
Solubility in other solvents		No information available	
logPow		No information available	
Autoignition temperature		No information available	
Decomposition temperature		No information available	
Viscosity, kinematic	76.41 mm ² /s	@ 40 °C	ISO 3104
Explosive properties	Not explosive		
Oxidizing Properties	Not applicable		
Possibility of hazardous reactions	None under normal processing		
Other information			
Freezing Point		No information available	

10. STABILITY AND REACTIVITY

<u>Reactivity</u>	None under normal processing.
<u>Chemical stability</u>	Stable under recommended storage conditions.
<u>Possibility of hazardous reactions</u>	No dangerous reaction known under conditions of normal use.
<u>Conditions to avoid</u>	Keep away from open flames, hot surfaces and sources of ignition. Keep away from heat and sparks. Take precautionary measures against static discharges.
<u>Incompatible materials</u>	Strong oxidizing agents.
<u>Hazardous Decomposition Products</u>	Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. Combustion products include sulphur oxides (SO ₂ and SO ₃) and Hydrogen sulphide H ₂ S, Mercaptans, Nitrogen oxides (NO _x), Phosphorous oxides, Zinc oxides.

11. TOXICOLOGICAL INFORMATIONInformation on likely routes of exposure

Symptoms	No information available.
Skin contact	Not classified based on available data. May produce an allergic reaction.
Eye contact	Not classified based on available data.
Inhalation	Not classified based on available data. Inhalation of vapors in high concentration may cause irritation of respiratory system.
Ingestion	Not classified based on available data. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity - Product Information

Oral Not classified based on available data

Dermal Not classified based on available data

Inhalation Not classified based on available data

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based 72623-87-1	LD50 > 5000 mg/kg bw (rat - OECD 401)	LD50 > 5000 mg/kg bw (rabbit - OECD 402)	LC50 (4h) > 5 mg/l (aerosol) (rat - OECD 403)
Reaction products of 1-decene, 1-dodecene and 1-octene, hydrogenated 163149-28-8	LD50 5000 mg/kg bw (rat - OECD 403)	LD50 2000 mg/kg bw (rat - OECD 402)	
Reaction products of 1-decene, hydrogenated 68649-12-7	LD50 > 5000 mg/kg (Rat - OECD 401)	LD50 > 2000 mg/kg (Rabbit - OECD 402)	LC50 (4h) > 5000 mg/m³ (Rat - Aerosol - OECD 403)
10-ethyl-12-heptyl-11,13-dimethyltri cosane; 8-ethyl-9,11-dimethyl-10-nonylnona decane 151006-60-9	LD50 5000 mg/kg bw (rat)	LD50 2000 mg/kg bw (rat - OECD 402)	LC50(4h) 5mg/L (rat - OECD 403)
Distillates (petroleum), hydrotreated heavy paraffinic 64742-54-7	LD50 > 5000 mg/kg bw (rat - OECD 420)	LD50 > 5000 mg/kg bw (rabbit - OECD 402)	LC50 (4h) > 5 mg/l (aerosol) (rat - OECD 403)
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based 72623-86-0	LD50 > 5000 mg/kg bw (Rat - OECD TG 401)	LD50 > 2000 mg/kg (Rabbit - OECD 402)	LD50 (4h) > 5.53 mg/l (Rat - OECD 403)
bis(nonylphenyl)amine 36878-20-3	LD50 > 5000 mg/kg (Rat - OECD 401)	LD50 > 2000 mg/kg (Rat - OECD 402)	
C14-16-18 Alkyl phenol ^	LD50 2000 mg/kg bw (rat)	LD50 2000 mg/kg bw (rat)	

Skin corrosion/irritation

Not classified based on available data.

Serious eye damage/eye irritation

Not classified based on available data.

Respiratory or skin sensitization

Not classified based on available data. Contains sensitizer(s). May produce an allergic reaction. The supplier of one of the components contained within this formulation has indicated that they have data, which confirms that at the concentration used, no sensitisation classification is required .

Germ cell mutagenicity

Not classified based on available data.

Carcinogenicity

Not classified based on available data. During use in engines, contamination of oil with low levels of combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water.

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Reproductive toxicity Target Organ Effects (STOT)

STOT - single exposure

STOT - repeated exposure

Aspiration hazard

Not classified based on available data.

None known.

Not classified based on available data.

May cause damage to organs through prolonged or repeated exposure.

Not classified based on available data.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Acute aquatic toxicity - Product Information

No information available

Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates	Toxicity to microorganisms
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based 72623-87-1	EL50 (48h) > 100 mg (Pseudokirchnerella subcapitata - OECD 201)	LL50 (96h) > 100 mg/l (Oncorhynchus mykiss - OECD 203)	EL50 (48h) > 10000 mg/l (Daphnia magna - OECD 202) LL50 (24h) > 10000 mg/l (Gammarus pulex - OECD 202) LL50 (48h) > 10000 mg/l (Gammarus pulex - OECD 202) LL50 (72h) > 10000 mg/l (Gammarus pulex - OECD 202) LL50 (96h) > 10000 mg/l (Gammarus pulex - OECD 202)	
Reaction products of 1-decene, hydrogenated 68649-12-7	EL50 (72h) > 1000 mg/l (WAF - Scenedesmus capricornutum - static - OECD 201)	LC50 (96h) > 1000 mg/l (WAF - Oncorhynchus mykiss - semi static)	EL50 (48h) > 1000 mg/l (WAF - Daphnia magna - static - OECD 202)	
10-ethyl-12-heptyl-11,13-dimethyltricosane; 8-ethyl-9,11-dimethyl-10-nonynonadecane 151006-60-9				EC50(16h) 10000 mg/L
Distillates (petroleum), hydrotreated heavy paraffinic 64742-54-7	EL50 (48h) > 100 mg/l (Pseudokirchnerella subcapitata - OECD 201)	LL50 (96h) > 100 mg/l (Oncorhynchus mykiss - OECD 203)	EL50 (48h) > 10000 mg/l (Daphnia magna - OECD 202)	
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based 72623-86-0		LL50 (96h) > 100 mg/l (OECD TG 203)	EL50(48h) > 1000 mg/l (OECD TG 202)	

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bis(nonylphenyl)amine 36878-20-3	EC50 (72h) > 100 mg/l (Desmodesmus subspicatus - OECD 201)	LC50 (96h) > 100 mg/l (Brachydanio rerio - OECD 203)	EC50 (48h) > 100 mg/l (Daphnia magna - OECD 202)	
C14-16-18 Alkyl phenol ^			EC50(48h) > 100 mg/l (Daphnia magna - static - OECD202)	

Chronic aquatic toxicity - Product Information

No information available

Chronic aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based 72623-87-1	NOEL (72h) >= 100 mg/l (Pseudokirchnerella subcapitata - OECD 201)	NOEL (21d) 10 mg/l (Daphnia magna - OECD 211)	NOEL (14/28d) > 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox) NOEL (96h) > 100 mg/l (Pimephales promelas - OECD 203)	
Reaction products of 1-decene, hydrogenated 68649-12-7		NOELr(21d) 125 mg/l (Daphnia magna)		
Distillates (petroleum), hydrotreated heavy paraffinic 64742-54-7		NOEL (21d) 10 mg/l (Daphnia magna - QSAR Petrotox)	NOEL (14/28d) > 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox)	
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based 72623-86-0		NOEL (21d) = 10 mg/l (OECD TG 202)	NOELR (14d) > 1000 mg/l (QSAR modelled data)	

Effects on terrestrial organisms No information available.**Persistence and degradability**

No information available

Bioaccumulative potential**Product Information** No information available.**logPow** No information available**Component Information**

Chemical Name	log Pow
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Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based 72623-87-1	4.1
Reaction products of 1-decene, hydrogenated 68649-12-7	5
Distillates (petroleum), hydrotreated heavy paraffinic 64742-54-7	-
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based 72623-86-0	6.1
bis(nonylphenyl)amine 36878-20-3	7.7

Mobility

Soil Given its physical and chemical characteristics, the product generally shows low soil mobility.

Air Loss by evaporation is limited.

Water The product is insoluble and floats on water.

Other adverse effects

General Information No information available.

13. DISPOSAL CONSIDERATIONS**Waste treatment**

Waste from residues/unused products Should not be released into the environment. Do not empty into drains. Dispose of in accordance with all applicable national environmental laws and regulations. Where possible recycling is preferred to disposal or incineration. Other Regulatory Status: No Canadian federal standard; however, for general discharge guidance, federal installations limited to 15 mg/L for total oil and grease. Provincial criteria are likely and should be requested when notifying provincial authorities.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

TDG Not regulated

DOT Not regulated

MEX Not regulated

ICAO/IATA Not regulated

IMDG/IMO Not regulated

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ADR/RID Not regulatedADN Not regulated**15. REGULATORY INFORMATION**

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) (SOR/2015/17) and the Safety Data Sheet (SDS) contains all the information required by the HPR

International Inventories

All the substances contained in this product are listed or exempted from listing in the following inventories:

Europe (EINECS/ELINCS/NLP)
Korea (KECL)
Canada (DSL/NDSL)
Philippines (PICCS)
U.S.A. (TSCA)
Australia (AICS)

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<u>NFPA</u>	Health Hazard 2	Flammability 1	Instability 0	Special hazards -
<u>HMIS</u>	Health Hazard 2	Flammability 1	Physical Hazard 0	Personal protection X

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Revision Note: Initial Release

Abbreviations, acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

bw = body weight

bw/day = body weight/day

EC x = Effect Concentration associated with x% response

GLP = Good Laboratory Practice

IARC = International Agency for Research of Cancer

LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals

LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals

LL = Lethal Loading

NIOSH = National Institute of Occupational Safety and Health

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

NOEL = No Observed Effect Level

OECD = Organization for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material

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NTP = National Toxicology Program

Section 8

TWA - Time Weight Average

STEL - Short Term Exposure Limits

+	Sensitizer	*	Skin designation
C:	Carcinogen	R:	Toxic to reproduction
Ceiling:	Ceiling Limit Value		

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.

End of the Safety Data Sheet