SAFETY DATA SHEET

According to the Hazard Communication Standard, 29 CFR 1910.1200

SDS # : 080050

QUARTZ 9000 ENERGY 5W-30

Date of the previous version: 2018-12-31 **Revision Date:** *2019-05-20* **Version** *1.01*

1. IDENTIFICATION

Product identifier

Product name QUARTZ 9000 ENERGY 5W-30

Other means of identification

Product Code(s) 080050

Number 4HS
Substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Identified uses Engine 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 Address TOTAL Specialties USA, Inc.
1201 Louisiana St. Suite 1800
Houston, TX 77002
Phone: 713-483-5000

Contact Point Technical/ HSEQ

E-mail Address ProductSafety@total.com

Emergency telephone number
Emergency telephone 1-866-928-0789 (For Emergencies, call CARECHEM 24/7 Domestic)
1-215-207-0061 (For Emergencies, call CARECHEM 24/7 International)

2. HAZARDS IDENTIFICATION

Classification

Specific target organ systemic 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
Refer to manufacturer/supplier for information on recovery/recycling***

Hazards not otherwise classified (HNOC)
None known

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.***

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical nature Mineral oil of petroleum origin.***

Chemical Name	CAS-No	Weight %
Distillates (petroleum), hydrotreated heavy paraffinic***	64742-54-7	30-<40
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based***	72623-87-1	5-<10
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based***	72623-86-0	5-<10
bis(nonylphenyl)amine***	36878-20-3	1-<2.5
C14-16-18 Alkyl phenol***	^	1-<2.5

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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

Notes to physician Treat symptomatically.***

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Carbon dioxide (CO_2). 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 (NOx), Phosphorous oxides, Zinc oxides.***

Explosion Data

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

Protective Equipment and Precautions for Firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

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. See Section 12 for additional Ecological Information.***

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.***

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/m^3, NIOSH (REL) TWA 5 mg/m^3, STEL 10 mg/m^3, ACGIH (TLV) TWA 5 mg/m^3 (highly refined).***

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

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. Long sleeved clothing.***

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.***

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Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. 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.***
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.***

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 ***	**228*** °C*****		Cleveland Open Cup (COC)***
	442*** °F***		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	0.851***	@ 15 °C***	
Density	851*** kg/m³***	@ 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 ***	*** 70.4*** mm2/s***	@ 40 °C ***	ASTM D445 ***
Explosive properties	Not explosive***		
Oxidizing Properties	Not applicable***		
Possibility of hazardous reactions	None under normal processing***		

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Other information

Freezing Point No information available

10. STABILITY AND REACTIVITY

Reactivity None under normal processing.***

Chemical stability Stable under recommended storage conditions.

Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.***

Conditions to avoid Keep away from open flames, hot surfaces and sources of ignition. Keep away from heat and sparks.***

Incompatible materials Strong oxidizing agents.***

Hazardous Decomposition Products 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 (SO2 and SO3) and Hydrogen sulphide H2S, Mercaptans, Nitrogen oxides (NOx), Phosphorous oxides, Zinc oxides.***

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principle Routes of Exposure Inhalation, Ingestion, Eye contact, Skin contact.

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.***

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

Acute toxicity - Product Information

Product Information Product does not present an acute toxicity hazard based on known or supplied information.

Oral Not classified based on available data***

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Dermal Not classified based on available data***

Inhalation Not classified based on available data***
ATEmix (inhalation-dust/mist) 10.4***

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
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), 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)
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.***
Sensitization Not classified based on available data. Contains sensitizer(s). May produce an allergic reaction. The supplier of one or more of the components contained within this formulation has indicated that he has data on the components and/or similar mixtures, which confirms that at the concentration used, classification is not required.***

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.***

Germ Cell Mutagenicity This product is not classified as mutagenic.***
Reproductive toxicity Not classified based on available data.***
Target Organ Effects (STOT) None known.***
STOT - single exposure Not classified based on available data.***
STOT - repeated exposure May cause damage to organs through prolonged or repeated exposure.***
Aspiration hazard 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	Toxicity to

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			other aquatic invertebrates	microorganisms
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), 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)	
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)	
bis(nonylphenyl)amine*** 36878-20-3	EC50(72h) 600 mg/l (Selenastrum capricornutum)	LC50(96h) > 100 mg/l (Zebra Fish)	EC50 (48h) > 100 mg/l (Daphnia magna - OECD 202)	EC50(0.1 d) > 1,000 mg/l (Sludge)
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
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), 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)	
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.***

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Persistence and degradability

General Information No information available.

Bioaccumulative potential

Product Information No information available.***

logPow No information available***

Component Information .***

Chemical Name	log Pow
Distillates (petroleum), hydrotreated heavy paraffinic*** 64742-54-7	-
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based*** 72623-87-1	4.1
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 Disposal Methods This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

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

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14. TRANSPORT INFORMATION

DOT Not regulated

ICAO/IATA Not regulated

IMDG/IMO Not regulated

ADR/RID Not regulated

15. REGULATORY INFORMATION

International Inventories All the substances contained in this product are listed or exempted from listing in the following inventories:
Canada (DSL/NDSL)
Korea (KECL)
Europe (EINECS/ELINCS/NLP)
Australia (AICS)
Taiwan (TCSI)
U.S.A. (TSCA)
New Zealand (NZIoC)***

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes***
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

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CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65
To the best of our knowledge, this product does not contain any substances known to the State of California to cause cancer, developmental and/or reproductive harm.

U.S. State Right-to-Know Regulations

No information available

16. OTHER INFORMATION

NFPA	**Health Hazard** 1	**Flammability** 1***	**Instability** 0	**Special hazards** -
HMIS	**Health Hazard** 1	**Flammability** 1***	**Physical Hazard** 0	**Personal protection** X

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)
Hazards are split into categories each with a 0 to 4 rating, 0 meaning no hazard and 4 meaning high hazard

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Revision Note (M)SDS sections updated 3 9 11 15 16***
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

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

Legend

Section 8

ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
NIOSH - National Institute for Occupational Safety and Health
TLV - Threshold Limit Values
PEL - Permissible Exposure Limits
IDHL - Immediately Dangerous to Life or Health concentrations
TWA - Time Weight Average
STEL - Short Term Exposure Limits
S* - Skin notation
TSCA - Toxic Substance Control Act

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