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SECTION	1. IDENTIFICATION				
Produ	uct name	: Pennzoil Gol	d 0W-20 Synthetic Blend Motor Oil		
Produ	uct code	: 001F1147	001F1147		
Manu	ufacturer or supplier's	details			
Manu	ufacturer/Supplier	: Shell Canad 400 - 4th Ave Calgary AB Canada	enue S.W		
Telep Telef	bhone ax	: (+1) 800661 : (+1) 4033848			
Emer ber	gency telephone num-	(US)	: (24 hr): 1 (703) 527-3887 or 1 (800) 424-9300 24 hr): (+1) 613-996-6666; Toll Free: 1-888-CAN- 3832)		
Reco	ommended use of the c	chemical and rest	rictions on use		

Recommended use of the chemical and res Recommended use : Engine oil.

В	Recommend	ed us	se	:	Engine	oil

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Not a hazardous substance or mixture.

GHS label elements

Precautionary statements	: Prevention: No precautionary phrases. Response:
Hazard statements	 PHYSICAL HAZARDS: Not classified as a physical hazard under GHS criteria. HEALTH HAZARDS: Not classified as a health hazard under GHS criteria. ENVIRONMENTAL HAZARDS: Not classified as an environmental hazard under GHS criteria.
Signal word	: No signal word
Hazard pictograms	: No Hazard Symbol required

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No precautionary phrases. **Storage:** No precautionary phrases. **Disposal:** No precautionary phrases.

Other hazards which do not result in classification

Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis. Used oil may contain harmful impurities. Not classified as flammable but will burn.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance name	: Pennzoil Gold 0W-20 Synthetic Blend Motor Oil
Chemical nature	 Synthetic base oil and additives. Highly refined mineral oil. The highly refined mineral oil contains <3% (w/w) DMSO- extract, according to IP346. The highly refined mineral oil is only present as additive dilu- ent.
	* contains one or more of the following CAS-numbers: 64742- 53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-65-0, 68037-01-4, 72623-86-0, 72623-87-1, 8042-47-5, 848301-69- 9.

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Polyolefin Amide Alkeneamine Polyol	Not Assigned	< 3
Alkaryl amine	36878-20-3	< 3
Distillates (Fischer - Tropsch), heavy, C18-50 -	848301-69-9	70 - 90
branched, cyclic and linear		

SECTION 4. FIRST-AID MEASURES

4.4			00000100007
In	case of eye contact	:	Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.
In	case of skin contact	:	Remove contaminated clothing. Flush exposed area with wa- ter and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.
lfi	inhaled	:	No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.
Ge	eneral advice	:	Not expected to be a health hazard when used under normal conditions.

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lf sw	allowed		eatment is necessary unless large quantities nowever, get medical advice.
	t important symptoms effects, both acute and yed	of black pustule	tis signs and symptoms may include formation s and spots on the skin of exposed areas. esult in nausea, vomiting and/or diarrhoea.
Prot	ection of first-aiders	appropriate pers	ering first aid, ensure that you are wearing the sonal protective equipment according to the and surroundings.
Note	es to physician	: Treat symptoma	itically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Foam, water spray or fog. Dry chemical powder, carbon diox- ide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	:	Do not use water in a jet.
Specific hazards during fire- fighting	:	Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide may be evolved if incomplete combustion occurs. Unidentified organic and inorganic compounds.
Specific extinguishing meth- ods	:	Use extinguishing measures that are appropriate to local cir- cumstances and the surrounding environment.
Special protective equipment for firefighters	:	Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- tive equipment and emer- gency procedures	:	Avoid contact with skin and eyes.
Environmental precautions	:	Use appropriate containment to avoid environmental contami- nation. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.

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		Local authoritie cannot be cont	es should be advised if significant spillages ained.
Methods and materials for containment and cleaning up		Prevent from s or other contain Reclaim liquid Soak up residu	spilt. Avoid accidents, clean up immediately. preading by making a barrier with sand, earth nment material. directly or in an absorbent. In with an absorbent such as clay, sand or other al and dispose of properly.
Additi	onal advice	see Chapter 8	on selection of personal protective equipment of this Safety Data Sheet. on disposal of spilled material see Chapter 13 of a Sheet.

SECTION 7. HANDLING AND STORAGE

General Precautions :	Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.
Advice on safe handling :	Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Properly dispose of any contaminated rags or cleaning mate- rials in order to prevent fires.
Avoidance of contact :	Strong oxidising agents.
Product Transfer :	This material has the potential to be a static accumulator. Proper grounding and bonding procedures should be used during all bulk transfer operations.
Storage	
Other data :	Keep container tightly closed and in a cool, well-ventilated place. Use properly labeled and closable containers.
	Store at ambient temperature.
Packaging material :	Suitable material: For containers or container linings, use mild steel or high density polyethylene. Unsuitable material: PVC.
Container Advice :	Polyethylene containers should not be exposed to high tem-
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peratures because of possible risk of distortion.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
Oil mist, mineral	Not Assigned	TWA ((inhal- able frac- tion))	5 mg/m3	US. ACGIH Threshold Limit Values
		TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Inhal- able fraction)	5 mg/m3	ACGIH

Biological occupational exposure limits

No biological limit allocated.

Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods http://www.cdc.gov/niosh/

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods http://www.osha.gov/

Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances http://www.hse.gov.uk/

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany http://www.dguv.de/inhalt/index.jsp

L'Institut National de Recherche et de Securité, (INRS), France http://www.inrs.fr/accueil

Engineering measures

 The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate ventilation to control airborne concentrations.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

General Information:

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		controls. Educate and tra measures relev product. Ensure appropr equipment used equipment, loca Drain down sys nance. Retain drain do subsequent rec Always observe washing hands drinking, and/or protective equip	good personal hygiene measures, such as after handling the material and before eating, smoking. Routinely wash work clothing and ment to remove contaminants. Discard con- ing and footwear that cannot be cleaned.
	onal protective equip	: No respiratory p conditions of us In accordance w tions should be If engineering c tions to a level w select respirator cific conditions of Check with resp Where air-filterin priate combinat Select a filter su	protection is ordinarily required under normal te. with good industrial hygiene practices, precau- taken to avoid breathing of material. ontrols do not maintain airborne concentra- which is adequate to protect worker health, ry protection equipment suitable for the spe- of use and meeting relevant legislation. biratory protective equipment suppliers. ng respirators are suitable, select an appro- ion of mask and filter. uitable for the combination of organic gases type A/Type P boiling point >65°C (149°F)].
	l protection emarks	gloves approved US: F739) made suitable chemic gloves Suitabilit usage, e.g. freq sistance of glov glove suppliers. Personal hygier Gloves must on gloves, hands s cation of a non- For continuous through time of	ntact with the product may occur the use of d to relevant standards (e.g. Europe: EN374, e from the following materials may provide al protection. PVC, neoprene or nitrile rubber cy and durability of a glove is dependent on juency and duration of contact, chemical re- e material, dexterity. Always seek advice from Contaminated gloves should be replaced. ne is a key element of effective hand care. If be worn on clean hands. After using should be washed and dried thoroughly. Appli- perfumed moisturizer is recommended. contact we recommend gloves with break- more than 240 minutes with preference for > here suitable gloves can be identified. For

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		recognize tha may not be a time maybe a and replacem a good predic dependent or Glove thickne	lash protection we recommend the same, but t suitable gloves offering this level of protection vailable and in this case a lower breakthrough cceptable so long as appropriate maintenance tent regimes are followed. Glove thickness is not ctor of glove resistance to a chemical as it is the exact composition of the glove material. the glove make and model.
Eye p	rotection		nandled such that it could be splashed into eyes, ewear is recommended.
Skin a	nd body protection	work clothes.	on is not ordinarily required beyond standard ctice to wear chemical resistant gloves.
Therm	nal hazards	: Not applicabl	e
Protec	ctive measures		ective equipment (PPE) should meet recom- nal standards. Check with PPE suppliers.

Environmental exposure controls

General advice :	Take appropriate measures to fulfill the requirements of rele- vant environmental protection legislation. Avoid contamination of the environment by following advice given in Chapter 6. If necessary, prevent undissolved material from being dis- charged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant before discharge to surface water. Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.
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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid at room temperature.
Colour	: amber
Odour	: Slight hydrocarbon
Odour Threshold	: Data not available
рН	: Not applicable
pour point	: -48 °C / -54 °F Method: ASTM D97

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	tial boiling point and boiling nge	:	> 280 °C / 536 °F estimated value(
Fla	ash point	:	232 °C / 450 °F	
			Method: ASTM D	092
E٧	aporation rate	:	Data not availabl	e
Fla	ammability (solid, gas)	:	Data not availabl	e
Up	oper explosion limit	:	Typical 10 %(V)	
Lo	wer explosion limit	:	Typical 1 %(V)	
Va	pour pressure	:	< 0.5 Pa (20 °C / estimated value(s	
Re	elative vapour density	:	> 1 estimated value(s	s)
Re	elative density	:	0.836 (15 °C / 59	[°] F)
De	ensity	:	836 kg/m3 (15.0	°C / 59.0 °F)Method: ASTM D287
	lubility(ies) Water solubility	:	negligible	
	Solubility in other solvents	:	Data not availabl	e
-	ntition coefficient: n- tanol/water	:	Pow: > 6 (based on inform	ation on similar products)
Αι	to-ignition temperature	:	> 320 °C / 608 °F	=
	scosity Viscosity, dynamic	:	Data not availabl	e
	Viscosity, kinematic	:	8.3 mm2/s (100 ° Method: ASTM D	
			45 mm2/s (40.0 ° Method: ASTM D	
Ex	plosive properties	:	Not classified	
O	kidizing properties	:	Data not availabl	e
Сс	onductivity	:	This material is n	ot expected to be a static accumulator.
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Decomposition temperature : Data not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.	
Chemical stability	: Stable.	
Possibility of hazardous reac- tions	: Reacts with strong oxidising agents.	
Conditions to avoid	: Extremes of temperature and direct sunlight.	
Incompatible materials	: Strong oxidising agents.	
Hazardous decomposition products	: Hazardous decomposition products are not expected to form during normal storage.	

SECTION 11. TOXICOLOGICAL INFORMATION

Basis for assessment	:	Information given is based on data on the components and the toxicology of similar products.Unless indicated otherwise,
		the data presented is representative of the product as a whole, rather than for individual component(s).

Information on likely routes of exposure

Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.

Acute toxicity

Product:

Acute oral toxicity	:	LD50 (rat): > 5,000 mg/kg Remarks: Expected to be of low toxicity:
Acute inhalation toxicity	:	Remarks: Not considered to be an inhalation hazard under normal conditions of use.
Acute dermal toxicity	:	LD50 (Rabbit): > 5,000 mg/kg Remarks: Expected to be of low toxicity:

Skin corrosion/irritation

Product:

Remarks: Expected to be slightly irritating. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

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Serious eye damage/eye irritation

Product:

Remarks: Expected to be slightly irritating.

Respiratory or skin sensitisation

Product:

Remarks: Not expected to be a skin sensitiser.

Germ cell mutagenicity

Product:

Genotoxicity in vivo

: Remarks: Not considered a mutagenic hazard.

Carcinogenicity

Product:

Remarks: Not expected to be carcinogenic.

Reproductive toxicity

Product:

Effects on fertility

Remarks: Not expected to impair fertility. Not expected to be a developmental toxicant.

STOT - single exposure

Product:

Remarks: Not expected to be a hazard.

STOT - repeated exposure

Product: Remarks: Not expected to be a hazard.

Aspiration toxicity

Product:

Not considered an aspiration hazard.

Further information

Product:

Remarks: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the

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environment on disposal.

ALL used oil should be handled with caution and skin contact avoided as far as possible.

Remarks: Continuous contact with used engine oils has caused skin cancer in animal tests.

Remarks: Slightly irritating to respiratory system.

SECTION 12. ECOLOGICAL INFORMATION

Basis for assessment :	Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products. Unless indicated otherwise, the data presented is representa- tive of the product as a whole, rather than for individual com- ponent(s).(LL/EL/IL50 expressed as the nominal amount of product required to prepare aqueous test extract).
Ecotoxicity	
Product: Toxicity to fish (Acute toxici- ty)	Remarks: Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l
Toxicity to crustacean (Acute : toxicity)	Remarks: Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l
Toxicity to algae/aquatic : plants (Acute toxicity)	Remarks: Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l
Toxicity to fish (Chronic tox- : icity)	Remarks: Data not available
Toxicity to crustacean : (Chronic toxicity)	Remarks: Data not available
	Remarks: Data not available
Persistence and degradability	
Product: Biodegradability :	Remarks: Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegrada- ble, but contains components that may persist in the environ- ment.

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Bi	oaccumulative potential				
Pr	Product: Bioaccumulation Partition coefficient: n- octanol/water				
Bio			 Remarks: Contains components with the potential to bioac- cumulate. Pow: > 6 Remarks: (based on information on similar products) 		
Мо	Mobility in soil				
Pr	Product:				
Mobility		:	 Remarks: Liquid under most environmental conditions. If it enters soil, it will adsorb to soil particles and will not be mobile. 		
			Remarks: Floats	on water.	
Ot	Other adverse effects				
<u>Pr</u>	oduct:				
	Additional ecological infor- mation	:	expected to be re Not expected to h	are of non-volatile components, which are not leased to air in any significant quantities. have ozone depletion potential, photochemi- n potential or global warming potential.	
			Poorly soluble mix May cause physic	xture. cal fouling of aquatic organisms.	

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods Waste from residues	: Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment. Waste, spills or used product is dangerous waste.	
	Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or na- tional requirements and must be complied with.	
Contaminated packaging	: Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand. Disposal should be in accordance with applicable regional, national, and local laws and regulations.	

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SECTION 14. TRANSPORT INFORMATION

National Regulations

TDG

Not regulated as a dangerous good

International Regulation

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

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Pollution category Ship type Product name Special precautions	 Not applicable Not applicable Not applicable Not applicable Not applicable
Special precautions for user	
Remarks	: Special Precautions: Refer to Chapter 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.
Additional Information	: MARPOL Annex 1 rules apply for bulk shipments by sea.

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

The components of this product are reported in the following inventories:

EINECO	. All components listed of polymer exempt.
TSCA	: All components listed.
DSL	: All components listed.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -

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Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN -Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose): MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC -No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS -Workplace Hazardous Materials Information System

A vertical bar (|) in the left margin indicates an amendment from the previous version. Revision Date : 2016-05-18

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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