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SECTION	SECTION 1. IDENTIFICATION							
Produ	ct name	:	Shell Rotella T4 Triple Protection 15W-40					
Produ	ct code	:	001F8880					
Manufacturer or supplier's		deta	ails					
Manuf	acturer/Supplier	:	Shell Canada Pro 400 - 4th Avenue Calgary AB T2P Canada	S.W				
Telepl Telefa		:	(+1) 8006611600 (+1) 4033848345					
Emero ber	gency telephone num-	:	UTEC (226-8832)	): (+1) 613-996-6666; Toll Free: 1-888-CAN- hr): 1 (703) 527-3887 or 1 (800) 424-9300				
_								

## Recommended use of the chemical and restrictions on use

Recommended use	: Engine oil.
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## **SECTION 2. HAZARDS IDENTIFICATION**

## **GHS Classification**

atic : Category 3	Long-term (chronic) aquatic hazard
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## **GHS** label elements

Hazard pictograms Signal word	: No symbol : No signal word
Hazard statements	<ul> <li>PHYSICAL HAZARDS: Not classified as a physical hazard under GHS criteria. HEALTH HAZARDS: Not classified as a health hazard under GHS criteria. ENVIRONMENTAL HAZARDS: H412 Harmful to aquatic life with long lasting effects.</li> </ul>
Precautionary statements	: Prevention: P273 Avoid release to the environment. Response:
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No precautionary phrases. **Storage:** No precautionary phrases. **Disposal:** P501 Dispose of contents/ container to an approved waste disposal plant.

## 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	: Shell Rotella T4 Triple Protection 15W-40
Chemical nature	<ul> <li>Highly refined mineral oils and additives. The highly refined mineral oil contains &lt;3% (w/w) DMSO- extract, according to IP346.</li> </ul>
	* 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)
Alkaryl amine	36878-20-3	1 - 3
Calcium sulphonate	70024-69-0	0.10 - 0.99
Alkyl borate	Not Assigned	0.10 - 0.99
Dialkyl alkaryl aminomethyl dicarboxylate	Not Assigned	0.10 - 0.99
Alcohol, ethoxylated	68551-12-2	0.10 - 0.50
Interchangeable low viscosity base oil (<20,5 cSt @40°C) *	Not Assigned	0 - 90

## **SECTION 4. FIRST-AID MEASURES**

If inhaled	: No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.
In case of skin contact	<ul> <li>Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available.</li> <li>If persistent irritation occurs, obtain medical attention.</li> </ul>
In case of eye contact	<ul> <li>Flush eye with copious quantities of water. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>If persistent irritation occurs, obtain medical attention.</li> </ul>

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If swallowed		: In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.		
Most important symptoms and effects, both acute and delayed		: Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea.		
Pro	tection of first-aiders	: When administering first aid, ensure that you are wearing appropriate personal protective equipment according to t incident, injury and surroundings.		
Not	es to physician	: Treat sympton	natically.	

## 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	:	Local authorities should be advised if significant spillages cannot be contained.
	Methods and materials for containment and cleaning up	:	Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent.
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Additional advice		Soak up residue with an absorbent such as clay, sand or othe suitable material and dispose of properly.		
		<ul> <li>For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet.</li> <li>For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.</li> </ul>		
SECT	ION 7. HANDLING AND ST	DRAGE		
G	General Precautions	: Use local exhaust ventilation if t vapours, mists or aerosols. Use the information in this data sessment of local circumstance ate controls for safe handling, s material.	sheet as input to a risk as- s to help determine appropri-	
Advice on safe handling		: Avoid prolonged or repeated co Avoid inhaling vapour and/or mi When handling product in drum worn and proper handling equip Properly dispose of any contam rials in order to prevent fires.	sts. s, safety footwear should be ment should be used.	
Avoidance of contact		: Strong oxidising agents.		
Product Transfer		<ul> <li>Proper grounding and bonding procedures should be used during all bulk transfer operations to avoid static accumulation</li> </ul>		
S	Storage			
	Other data	: Keep container tightly closed ar place. Use properly labeled and closal		
		Store at ambient temperature.		
F	Packaging material	: Suitable material: For container steel or high density polyethyler Unsuitable material: PVC.		
С	Container Advice	: Polyethylene containers should peratures because of possible r		

## SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters

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

## **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: Define procedures for safe handling and maintenance of controls. Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.
	Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation. Drain down system prior to equipment break-in or mainte- nance.
	Retain drain downs in sealed storage pending disposal or subsequent recycle.

Always observe good personal hygiene measures, such as

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		drinking, and/o protective equi	after handling the material and before eating, r smoking. Routinely wash work clothing and pment to remove contaminants. Discard con- ning and footwear that cannot be cleaned. housekeeping.
Pers	onal protective equip	ment	
Resp	biratory protection	conditions of u In accordance tions should be If engineering of tions to a level select respirato cific conditions Check with res Where air-filter priate combina Select a filter s	protection is ordinarily required under normal se. with good industrial hygiene practices, precau- e taken to avoid breathing of material. controls do not maintain airborne concentra- which is adequate to protect worker health, ory protection equipment suitable for the spe- of use and meeting relevant legislation. piratory protective equipment suppliers. ing respirators are suitable, select an appro- tion of mask and filter. uitable for the combination of organic gases Type A/Type P boiling point >65°C (149°F)].
Hand	protection		
Re	emarks	gloves approve US: F739) mad suitable chemin gloves Suitabil usage, e.g. free sistance of glov glove suppliers Personal hygie Gloves must of gloves, hands cation of a non For continuous through time of 480 minutes w short-term/spla recognize that may not be ava time maybe ac and replaceme a good predicte dependent on Glove thicknes	ontact with the product may occur the use of ed to relevant standards (e.g. Europe: EN374, de from the following materials may provide cal protection. PVC, neoprene or nitrile rubber ity and durability of a glove is dependent on quency and duration of contact, chemical re- ve material, dexterity. Always seek advice from a. Contaminated gloves should be replaced. ene is a key element of effective hand care. Inly be worn on clean hands. After using should be washed and dried thoroughly. Appli- -perfumed moisturizer is recommended. contact we recommend gloves with break- f more than 240 minutes with preference for > here suitable gloves can be identified. For ash protection we recommend the same but suitable gloves offering this level of protection ailable and in this case a lower breakthrough ceptable so long as appropriate maintenance ent regimes are followed. Glove thickness is not or of glove resistance to a chemical as it is the exact composition of the glove material. s should be typically greater than 0.35 mm the glove make and model.
Eye p	protection		andled such that it could be splashed into eyes, wear is recommended.
Skin	and body protection	: Skin protection work clothes.	is not ordinarily required beyond standard

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		It is good prac	ctice to wear chemical resistant gloves.		
Therr	nal hazards	: Not applicable	e		
Protective measures			: Personal protective equipment (PPE) should meet recom- mended national standards. Check with PPE suppliers.		
Envir	onmental exposure o	controls			
General advice		vant environn of the environ necessary, pr charged to wa municipal or i discharge to s Local guidelin	iate measures to fulfill the requirements of rele- nental protection legislation. Avoid contamination ment by following advice given in Section 6. If revent undissolved material from being dis- aste water. Waste water should be treated in a ndustrial waste water treatment plant before surface water. hes on emission limits for volatile substances rived for the discharge of exhaust air containing		

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: Clear amber
Odour	: Slight hydrocarbon
Odour Threshold	: Data not available
рН	: Not applicable
pour point	: -36 °C / -33 °F Method: ASTM D97
Initial boiling point and boiling range	: > 280 °C / 536 °F estimated value(s)
Flash point	: 234 °C / 453 °F
	Method: ASTM D92 (COC)
Evaporation rate	: Data not available
Flammability (solid, gas)	: Data not available
Upper explosion limit	: Typical 10 %(V)
Lower explosion limit	: Typical 1 %(V)

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Vapour pressure		: < 0.5 Pa (20 °C / 68 °F) estimated value(s)			
Relati	ve vapour density	: > 1 estimated value(s)			
Relati	ve density	: 0.878 (15 °C / 59 °F)			
Densi	ty	: 878 kg/m3 (15.0 °C / 59.0 °F)Me	thod: ASTM D4052		
	ility(ies) ter solubility	: negligible			
Solubility in other solvents		: Data not available			
Partition coefficient: n- octanol/water		log Pow: > 6 (based on information on similar products)			
Auto-ignition temperature		: > 320 °C / 608 °F			
Decor	nposition temperature	: Data not available			
Viscos Visc	sity cosity, dynamic	: Data not available			
Vise	cosity, kinematic	: 14.9 mm2/s (100 °C / 212 °F) Method: ASTM D445			
Explo	sive properties	: Not classified			
Oxidiz	ing properties	: Data not available			
Conductivity		: This material is not expected to b	be a static accumulator.		

## SECTION 10. STABILITY AND REACTIVITY

Reactivity	: The product does not pose any further reactivity haza 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	: No decomposition if stored and applied as directed.	

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### 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	<ul> <li>LD50 (rat): &gt; 5,000 mg/kg</li> <li>Remarks: Low toxicity:</li> <li>Based on available data, the classification criteria are not met.</li> </ul>
Acute inhalation toxicity	: Remarks: Based on available data, the classification criteria are not met.
Acute dermal toxicity	<ul> <li>LD50 (Rabbit): &gt; 5,000 mg/kg</li> <li>Remarks: Low toxicity:</li> <li>Based on available data, the classification criteria are not met.</li> </ul>

#### Skin corrosion/irritation

#### Product:

Remarks: Slightly irritating to skin. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis. Based on available data, the classification criteria are not met.

#### Serious eye damage/eye irritation

#### Product:

Remarks: Slightly irritating to the eye. Based on available data, the classification criteria are not met.

#### Respiratory or skin sensitisation

#### Product:

Remarks: Not a skin sensitiser. Based on available data, the classification criteria are not met.

### **Components:**

#### Calcium sulphonate:

Remarks: May cause an allergic skin reaction in sensitive individuals.

Remarks: Classified Skin Sensitiser Category 1B.

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#### Alkyl borate:

Remarks: May cause an allergic skin reaction in sensitive individuals.

Remarks: Classified Skin Sensitiser Category 1B.

#### Dialkyl alkaryl aminomethyl dicarboxylate:

Remarks: May cause an allergic skin reaction in sensitive individuals.

Remarks: Classified Skin Sensitiser Category 1B.

#### Germ cell mutagenicity

### Product:

Genotoxicity in vivo

: Remarks: Non mutagenic Based on available data, the classification criteria are not met.

Based on available data, the classification criteria are not met.

#### Carcinogenicity

### Product:

Remarks: Not a carcinogen. Based on available data, the classification criteria are not met.

Remarks: Product contains mineral oils of types shown to be non-carcinogenic in animal skinpainting studies.

Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
Reproductive toxicity	
Product:	
Effects on fertility	: Remarks: Not a developmental toxicant. Does not impair fertility.

#### STOT - single exposure

#### Product:

Remarks: Based on available data, the classification criteria are not met.

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#### STOT - repeated exposure

#### Product:

Remarks: Based on available data, the classification criteria are not met.

### Aspiration toxicity

## Product:

Not 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 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: LL/EL/IL50 10-100 mg/l Harmful
	Toxicity to crustacean (Acute toxicity)	:	Remarks: LL/EL/IL50 10-100 mg/l Harmful
	Toxicity to algae/aquatic plants (Acute toxicity)	:	Remarks: LL/EL/IL50 10-100 mg/l Harmful
	Toxicity to fish (Chronic tox-	:	Remarks: Data not available
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ic	city)						
(0	Toxicity to crustacean (Chronic toxicity) Toxicity to microorganisms		: Remarks: Data not available				
		coxicity)	•	Remarks: Data not available			
Р	Persist	ence and degradabil	ity				
	Produc						
В	Biodegradability		:	Remarks: Not readily biodegradable. Major constituents are inherently biodegradable, but contains components that may persist in the environment.			
В	Bioacc	umulative potential					
<u>P</u>	Produc	<u>t:</u>					
В	Bioaccu	Imulation	:	Remarks: Contair cumulate.	ns components with the potential to bioac-		
	Partition octanol	n coefficient: n- /water	:	: log Pow: > 6 Remarks: (based on information on similar products)			
м	lobilit	y in soil					
<u>P</u>	Produc	<u>t:</u>					
Μ	Mobility		:		under most environmental conditions. will adsorb to soil particles and will not be		
				Remarks: Floats of	on water.		
0	Other a	dverse effects					
<u>P</u>	Produc	<u>t:</u>					
	Addition nation	nal ecological infor-	:	ozone creation po Product is a mixtu	one depletion potential, photochemical otential or global warming potential. Ire of non-volatile components, which will not in any significant quantities under normal		
				Poorly soluble mix Causes physical f	xture. ouling of aquatic organisms.		
					ot cause chronic toxicity to aquatic organ- tions less than 1 mg/l.		

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## SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods	
Waste from residues	<ul> <li>Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses</li> </ul>
	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.
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.
Local legislation Remarks	: Disposal should be in accordance with applicable regional, national, and local laws and regulations.

## **SECTION 14. TRANSPORT INFORMATION**

### **National Regulations**

TDG

Not regulated as a dangerous good

## International Regulations

#### 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

Not applicable for product as supplied. MARPOL Annex 1 rules apply for bulk shipments by sea.

#### Special precautions for user

Remarks

: Special Precautions: Refer to Section 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

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### **SECTION 15. REGULATORY INFORMATION**

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

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

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:

EINECS	: Not all components listed.
TSCA	: All components listed.
DSL	: All components listed.

### **SECTION 16. OTHER INFORMATION**

#### Full text of other abbreviations

AIIC -Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - 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

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Sour	ces of key data used to bile the Safety Data		The quoted data sources of inform Health Services	endment from the previous version. a are from, but not limited to, one or more nation (e.g. toxicological data from Shell material suppliers' data, CONCAWE, EU se, EC 1272 regulation, etc).
Revis	sion Date	:	2019-05-22	

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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