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SECTION	1. IDENTIFICATION					
Produ	uct name	:	Shell Rotella T1 3	30		
Produ	uct code	:	001H5090			
Manu	facturer or supplier's	deta	ils			
Manu	facturer/Supplier	:	Shell Canada Pr 400 - 4th Avenue Calgary AB T2P Canada	S.W		
Telep Telefa		:	(+1) 8006611600 (+1) 4033848345			
Emer ber	gency telephone num-	:	(US)	hr): 1 (703) 527-3887 or 1 (800) 424-9300 ): (+1) 613-996-6666; Toll Free: 1-888-CAN-		
Deee	mmonded use of the	hon	ical and restrictiv			

#### Recommended use of the chemical and restrictions on use

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

## **GHS Classification**

Based on available data this substance / mixture does not meet the classification criteria.

## **GHS** label elements

Hazard pictograms	: No Hazard Symbol required
Signal word	: 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: Not classified as an environmental hazard under GHS criteria.</li> </ul>
Precautionary statements	<ul> <li>Prevention: No precautionary phrases.</li> <li>Response: No precautionary phrases.</li> <li>Storage:</li> </ul>
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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	: Shell Rotella T1 30
Chemical nature	: Highly refined mineral oils and additives. The highly refined mineral oil contains <3% (w/w) DMSO- extract, according to IP346.

# Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Phosphorodithioic acid, mixed O,O-bis(2-	85940-28-9	1 - 2.4
ethylhexyl and iso-Bu and iso-Pr) esters, zinc		
salts		

#### **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	:	Remove contaminated clothing. Flush exposed area with wa- ter and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.
In case of eye contact	:	Flush eye with copious quantities of water. Remove contact lenses, if present and easy to do. Continue rinsing. If persistent irritation occurs, obtain medical attention.
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.
Protection of first-aiders	:	When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.
Notes to physician	:	Treat symptomatically.

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## **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.
		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. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.
Additional advice	:	For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.

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## 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 as- sessment of local circumstances to help determine appropri- ate 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	:	Proper grounding and bonding procedures should be used during all bulk transfer operations to avoid static accumulation.
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- 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 (Mist)	5 mg/m3	OSHA Z-1
		TWA (Inhal-	5 mg/m3	ACGIH
		able fraction)	-	

# **Biological occupational exposure limits**

No biological limit allocated.

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#### **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 maintenance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

## Personal protective equipment

Respiratory protection

: No respiratory protection is ordinarily required under normal

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		tions should be If engineering c tions to a level select respirato cific conditions Check with resp Where air-filteri priate combinat Select a filter su	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 d particles [Type A/Type P boiling point
	d protection emarks	gloves approve US: F739) mad 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 480 minutes wh short-term/splas recognize that s may not be ava time maybe acc and replacemen a good predicto dependent on th Glove thickness	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 uency and duration of contact, chemical re- e material, dexterity. Always seek advice from Contaminated gloves should be replaced. The is a key element of effective hand care. If be worn on clean hands. After using hould be washed and dried thoroughly. Appli- perfumed moisturizer is recommended. contact we recommend gloves with break- more than 240 minutes with preference for > the suitable gloves can be identified. For sh protection we recommend the same but suitable gloves offering this level of protection ilable and in this case a lower breakthrough the petable so long as appropriate maintenance in regimes are followed. Glove thickness is not r of glove resistance to a chemical as it is the exact composition of the glove material. a should be typically greater than 0.35 mm the glove make and model.
Eye	protection		ndled such that it could be splashed into eyes, ear is recommended.
Skin	and body protection	work clothes.	is not ordinarily required beyond standard ce to wear chemical resistant gloves.
The	rmal hazards	: Not applicable	
Prot	ective measures		tive equipment (PPE) should meet recom- al standards. Check with PPE suppliers.

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## **Environmental exposure controls**

	ronmental protection legislation. Avoid contamina vironment by following advice given in Section 6. y, prevent undissolved material from being dis- to waste water. Waste water should be treated in I or industrial waste water treatment plant before to surface water. delines on emission limits for volatile substances	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
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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	: -24 °C / -11 °F Method: ASTM D97
Initial boiling point and boiling range	: > 280 °C / 536 °F estimated value(s)
Flash point	: 210 °C / 410 °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)
Vapour pressure	: < 0.5 Pa (20 °C / 68 °F) estimated value(s)
Relative vapour density	: > 1 estimated value(s)
Relative density	: 0.887 (15.0 °C / 59.0 °F)

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D	ensity	:	887 kg/m3 (15.0	°C / 59.0 °F)Method: ASTM D4052
Se	blubility(ies) Water solubility	:	negligible	
	Solubility in other solvents	:	Data not availabl	e
	artition coefficient: n- tanol/water	:	log Pow: > 6 (based on inform	ation on similar products)
A	uto-ignition temperature	:	> 320 °C / 608 °F	-
D	ecomposition temperature	:	Data not availabl	e
Vi	scosity Viscosity, dynamic	:	Data not availabl	e
	Viscosity, kinematic	:	107 mm2/s (40.0 Method: ASTM D	
			11.9 mm2/s (100 Method: ASTM E	
Ex	plosive properties	:	Not classified	
0	kidizing properties	:	Data not availabl	e
C	onductivity	:	This material is r	ot expected to be a static accumulator.

# 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	: No decomposition if stored and applied as directed.

# 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,

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		-	ented is representative of the product as a than for individual component(s).
Skin a	mation on likely route and eye contact are the ental ingestion.	•	xposure although exposure may occur following
Acute	e toxicity		
Prod	uct:		
Acute	e oral toxicity	: LD50 (rat): > Remarks: Lov Based on ava	
Acute	inhalation toxicity	: Remarks: Bas are not met.	sed on available data, the classification criteria
Acute	e dermal toxicity	: LD50 (Rabbit) Remarks: Lov Based on ava	

## 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.

## Germ cell mutagenicity

## Product:

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

## Carcinogenicity

## Product:

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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.

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

#### STOT - single exposure

#### Product:

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

#### 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.

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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	<ul> <li>Ecotoxicological data have not been determined specifically for this product.</li> <li>Information given is based on a knowledge of the components and the ecotoxicology of similar products.</li> <li>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).</li> </ul>
Ecotoxicity	
Product: Toxicity to fish (Acute toxici- ty)	: Remarks: LL/EL/IL50 > 100 mg/I Practically non toxic: Based on available data, the classification criteria are not met.
Toxicity to crustacean (Acute toxicity)	: Remarks: LL/EL/IL50 > 100 mg/l Practically non toxic: Based on available data, the classification criteria are not met.
Toxicity to algae/aquatic plants (Acute toxicity)	: Remarks: LL/EL/IL50 > 100 mg/I Practically non toxic: Based on available data, the classification criteria are not met.
Toxicity to fish (Chronic tox- icity)	: Remarks: Data not available
Toxicity to crustacean	: Remarks: Data not available
(Chronic toxicity) Toxicity to microorganisms (Acute toxicity)	: Remarks: Data not available
Persistence and degradability	
<u>Product:</u> Biodegradability	: Remarks: Not readily biodegradable. Major constituents are inherently biodegradable, but contains components that may persist in the environment.
Bioaccumulative potential	

#### Product:

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cumulation	: Remarks: Cont cumulate.	ains components with the potential to bioac-	
ion coefficient: n- ol/water	: log Pow: > 6 Remarks: (base	: log Pow: > 6 Remarks: (based on information on similar products)	
lity in soil			
uct:			
ity		d under most environmental conditions. it will adsorb to soil particles and will not be	
	Remarks: Float	s on water.	
r adverse effects			
uct:			
Additional ecological infor- mation	ozone creation Product is a mi be released to	: Does not have ozone depletion potential, photochemical ozone creation potential or global warming potential. Product is a mixture of non-volatile components, which will not be released to air in any significant quantities under normal conditions of use.	
		nixture. al fouling of aquatic organisms.	
		s not cause chronic toxicity to aquatic organ- trations less than 1 mg/l.	
	2019-10-21 comulation ion coefficient: n- ol/water lity in soil uct: ity	2019-10-21       800010035375         commulation       : Remarks: Contacumulate.         ion coefficient: n-ol/water       : log Pow: > 6         lity in soil	

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 meth- ods 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.

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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.

## **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	: All components listed or polymer exempt.
TSCA	: All components listed.
DSL	: All components listed.

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#### **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 -Carcinogen, Mutagen or Reproductive Toxicant; 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.

Sources of key data used to	: The quoted data are from, but not limited to, one or more
compile the Safety Data	sources of information (e.g. toxicological data from Shell
Sheet	Health Services, material suppliers' data, CONCAWE, EU IUCLID date base, EC 1272 regulation, etc).

Revision Date

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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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