

Version 1.1 Revision Date 2017-04-12

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

**Product information** 

Product Name : Orfom® MC8 Collector

Company : Chevron Phillips Chemical Company LP

10001 Six Pines Drive The Woodlands, TX 77380

## **Emergency telephone:**

Health:

866.442.9628 (North America) 1.832.813.4984 (International)

Transport:

CHEMTREC 800.424.9300 or 703.527.3887(int'l)

Asia: +800 CHEMCALL (+800 2436 2255) China:+86-21-22157316 EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)

Mexico CHEMTREC 01-800-681-9531 (24 hours)

South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600

Responsible Department : Product Safety and Toxicology Group

E-mail address : SDS@CPChem.com Website : www.CPChem.com

## **SECTION 2: Hazards identification**

## Classification of the substance or mixture

This product has been classified in accordance with the hazard communication standard 29 CFR 1910.1200; the SDS and labels contain all the information as required by the standard.

Classification

: Flammable liquids, Category 4 Skin irritation, Category 2 Eye irritation, Category 2A Skin sensitization, Category 1

Labeling

Symbol(s) :



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Signal Word : Warning

Hazard Statements : H227: Combustible liquid.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction. H319: Causes serious eye irritation.

Precautionary Statements : Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces.

No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 Wash skin thoroughly after handling.

P272 Contaminated work clothing must not be allowed out of

the workplace.

P280 Wear protective gloves/ eye protection/ face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and

water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

P333 + P313 If skin irritation or rash occurs: Get medical

advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/

attention.

P362 Take off contaminated clothing and wash before reuse. P370 + P378 In case of fire: Use dry sand, dry chemical or

alcohol-resistant foam to extinguish.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

Carcinogenicity:

IARC No ingredient of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

NTP No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.

## **SECTION 3: Composition/information on ingredients**

Component	CAS-No.	Weight %
tert-Dodecanethiol	25103-58-6	91 - 97
Pine Oil	8002-09-3	3 - 9

## **SECTION 4: First aid measures**

General advice : Move out of dangerous area. Show this material safety data

sheet to the doctor in attendance. Material may produce a

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serious, potentially fatal pneumonia if swallowed or vomited.

If inhaled : If unconscious, place in recovery position and seek medical

advice. If symptoms persist, call a physician.

In case of skin contact : If skin irritation persists, call a physician. If on skin, rinse well

with water. If on clothes, remove clothes.

In case of eye contact : Immediately flush eye(s) with plenty of water. Remove contact

lenses. Protect unharmed eye. Keep eye wide open while

rinsing. If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear. Do NOT induce vomiting. Do not

give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a

physician. Take victim immediately to hospital.

## **SECTION 5: Firefighting measures**

Flash point : 83 °C (181 °F)

Suitable extinguishing

media

Carbon dioxide (CO2).

Unsuitable extinguishing

media

: High volume water jet.

Specific hazards during fire

fighting

: Do not allow run-off from fire fighting to enter drains or water

courses.

Special protective

equipment for fire-fighters

: Wear self-contained breathing apparatus for firefighting if

necessary.

Further information : Collect contaminated fire extinguishing water separately. This

must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed

containments. Use a water spray to cool fully closed

containers.

Fire and explosion

protection

Do not spray on an open flame or any other incandescent

material. Keep away from open flames, hot surfaces and

sources of ignition.

#### **SECTION 6: Accidental release measures**

Personal precautions : Use personal protective equipment. Ensure adequate

ventilation.

Environmental precautions : Prevent product from entering drains. Prevent further leakage

or spillage if safe to do so. If the product contaminates rivers

and lakes or drains inform respective authorities.

Methods for cleaning up : Contain spillage, and then collect with non-combustible

absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to

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local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

## **SECTION 7: Handling and storage**

#### Handling

Advice on safe handling : Avoid formation of aerosol. Do not breathe vapors/dust. Avoid

exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any

process in which this mixture is being used.

Advice on protection against fire and explosion

Do not spray on an open flame or any other incandescent material. Keep away from open flames, hot surfaces and

sources of ignition.

#### **Storage**

Requirements for storage areas and containers

No smoking. Keep in a well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

#### SECTION 8: Exposure controls/personal protection

## Ingredients with workplace control parameters

Chevron Phillips Chemical Company LP

ingredients	Basis	value	Control parameters	Note
tert-Dodecanethiol	Manufacturer	TWA	0.1 ppm,	
US				
Ingredients	Basis	Value	Control parameters	Note

Hazardous components without workplace control parameters

#### **Engineering measures**

Adequate ventilation to control airborned concentrations below the exposure guidelines/limits. Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

#### Personal protective equipment

Respiratory protection : Wear a supplied-air NIOSH approved respirator unless

ventilation or other engineering controls are adequate to maintain minimal oxygen content of 19.5% by volume under

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normal atmospheric pressure. Wear a NIOSH approved respirator that provides protection when working with this material if exposure to harmful levels of airborne material may occur, such as:. Full-Face Supplied-Air Respirator. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not

provide adequate protection.

Hand protection : The suitability for a specific workplace should be discussed

with the producers of the protective gloves. 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. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection : Eye wash bottle with pure water. Tightly fitting safety goggles.

Skin and body protection : Choose body protection in relation to its type, to the

concentration and amount of dangerous substances, and to the specific work-place. Wear as appropriate:. Flame retardant protective clothing. Remove and wash contaminated clothing before re-use. Skin should be washed after contact. Footwear

protecting against chemicals.

Hygiene measures : When using do not eat or drink. When using do not smoke.

Wash hands before breaks and at the end of workday.

#### **SECTION 9: Physical and chemical properties**

## Information on basic physical and chemical properties

#### **Appearance**

Form : Liquid
Physical state : Liquid
Color : Colorless
Odor : pine

Safety data

Flash point : 83 °C (181 °F)

Boiling point/boiling range : 193 °C (379 °F)

Density : 0.879 g/cm3

at 25 °C (77 °F)

Viscosity, kinematic : 9.38 cSt

## SECTION 10: Stability and reactivity

Chemical stability : This material is considered stable under normal ambient and

anticipated storage and handling conditions of temperature

and pressure.

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## Possibility of hazardous reactions

Conditions to avoid : Heat, flames and sparks.

Other data : No decomposition if stored and applied as directed.

#### **SECTION 11: Toxicological information**

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Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg

Method: Calculation method

Acute toxicity estimate: > 5,000 mg/kg

Method: Calculation method

Acute inhalation toxicity

tert-Dodecanethiol : LC50: > 1.97milligram per literExposure time: 4 h

Species: Rat

Sex: male and female

Method: OECD Test Guideline 403

Information given is based on data obtained from similar

substances.

Pine Oil LC50: > 20 mg/l

Exposure time: 4 h Species: Rat

Test atmosphere: dust/mist Method: OPPTS 870.1300

**Acute dermal toxicity** 

tert-Dodecanethiol : LD50: >2000 mg/kg

Species: Rat Sex: male

Method: OECD Test Guideline 402

Information given is based on data obtained from similar

substances.

Pine Oil LD50: > 5,000 mg/kg

Species: Rat

Method: OPPTS 870.1200

Acute toxicity (other routes of administration)

Pine Oil :

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**Skin irritation** : Skin irritation

May cause skin irritation and/or dermatitis.

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**Eye irritation** : Eye irritation.

May cause irreversible eye damage.

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**Sensitization** : Causes sensitization.

Repeated dose toxicity

tert-Dodecanethiol : Species: Rat, male

Sex: male

Application Route: Inhalation

Dose: 0, 26, 98 ppm Exposure time: 4 wk

Number of exposures: 6 h/d, 5 d/wk Lowest observable effect level: 26 ppm Method: OECD Test Guideline 412 Target Organs: Kidney, Liver

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Species: Rat, female

Sex: female

Application Route: Inhalation

Dose: 0, 26, 98 ppm Exposure time: 4 wk

Number of exposures: 6 h/d, 5 d/wk

NOEL: 26 ppm

Method: OECD Guideline 412 Target Organs: Liver, Kidney

Species: Dog, male and female

Sex: male and female Application Route: Inhalation Dose: 0, 25, 106 ppm Exposure time: 4 wk

Number of exposures: 6 h/d, 5 d/wk

NOEL: 25 ppm

Lowest observable effect level: 109 ppm

Method: OECD Test Guideline 412

Target Organs: Liver

Species: Mouse, male and female

Sex: male and female Application Route: Inhalation Dose: 0, 25, 109 ppm

Dose: 0, 25, 109 ppm Exposure time: 4 wk

Number of exposures: 6 h/d, 5 d/wk Lowest observable effect level: 25 ppm Method: OECD Test Guideline 412

Target Organs: Liver

Species: Rat, male

Sex: male

Application Route: oral gavage Dose: 10, 50, 250 mg/kg Exposure time: 35 d

Number of exposures: once daily

NOEL: 50 mg/kg

Method: OECD Guideline 422 Target Organs: Liver, spleen

Information given is based on data obtained from similar

substances.

Species: Rat, female

Sex: female

Application Route: oral gavage Dose: 10, 50, 250 mg/kg Exposure time: 53 d

Number of exposures: once daily

NOEL: 50 mg/kg

Method: OECD Guideline 422 Target Organs: Liver, spleen

Information given is based on data obtained from similar

substances.

Species: Rat, male

Sex: male

Application Route: Inhalation Dose: 5, 25, 100 ppm Exposure time: 90 d

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Number of exposures: 6h/d, 5d/wk

NOEL: 25 ppm

Method: OECD Test Guideline 413

Species: Rat, female

Sex: female

Application Route: Inhalation Dose: 5, 25, 100 ppm Exposure time: 90 d

Number of exposures: 6h/d, 5d/wk

NOEL: 25 ppm

Method: OECD Test Guideline 413

Pine Oil Species: Rat, male and female

Sex: male and female Application Route: Dermal Dose: 50, 113, 226 mg/kg/d Exposure time: 13 wk

Number of exposures: 5 d/wk

NOEL: > 226 mg/kg

## Reproductive toxicity

tert-Dodecanethiol : Species: Rat

Sex: male

Application Route: oral gavage Dose: 10, 50, 250 mg/kg/d Exposure time: 35 d Number of exposures: Daily Method: OECD Guideline 422 NOAEL Parent: >= 250 mg/kg

Information given is based on data obtained from similar

substances.

Species: Rat Sex: female

Application Route: oral gavage Dose: 10, 50, 250 mg/kg/d Exposure time: 53 d Number of exposures: Daily Method: OECD Guideline 422 NOAEL Parent: 50 mg/kg NOAEL F1: 50 mg/kg

Information given is based on data obtained from similar

substances.

Decrease in Delivery Index

#### **Developmental Toxicity**

tert-Dodecanethiol : Species: Rat

Application Route: Inhalation Dose: 0, 22.7, 88.6 ppm Number of exposures: 6 hrs/d

Test period: GD 6-19

Method: OECD Guideline 414 NOAEL Teratogenicity: >= 88.6 ppm

No adverse effects expected

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Species: Mouse

Application Route: Inhalation Dose: 0, 22.7, 88.6 ppm Number of exposures: 6 hrs/d

Test period: GD 6-19

Method: OECD Guideline 414 NOAEL Teratogenicity: >= 88.6 ppm

No adverse effects expected

Pine Oil Species: Rat

Application Route: oral gavage Dose: 50, 600, 1200 mg/kg/d Exposure time: GD 6 - 15 Number of exposures: Daily NOAEL Teratogenicity: 50 mg/kg NOAEL Maternal: 50 mg/kg

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**Aspiration toxicity** : May be harmful if swallowed and enters airways.

**CMR** effects

tert-Dodecanethiol : Carcinogenicity: Not available

Mutagenicity: Tests on bacterial or mammalian cell cultures

did not show mutagenic effects.

Teratogenicity: Animal testing did not show any effects on

fetal development.

Reproductive toxicity: No toxicity to reproduction

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**Further information** : Solvents may degrease the skin.

#### **SECTION 12: Ecological information**

#### Toxicity to fish

tert-Dodecanethiol : LL50: > 100 mg/l

Exposure time: 96 h

Species: Danio rerio (Zebra Fish)

static test Method: OECD Test Guideline 203

No toxicity at the limit of solubility.

Pine Oil 18.4 mg/l

Exposure time: 96 h

Species: Oncorhynchus mykiss (rainbow trout) flow-through test Method: OPPTS 850.1075

#### Toxicity to daphnia and other aquatic invertebrates

tert-Dodecanethiol : EC50: > 0.056 mg/l

Exposure time: 48 h

Species: Daphnia magna (Water flea)

semi-static test Method: OECD Test Guideline 202

No toxicity at the limit of solubility.

Pine Oil 24.5 mg/l

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Exposure time: 48 h

Species: Daphnia magna (Water flea) flow-through test Method: OPPTS 850.1010

Toxicity to bacteria

tert-Dodecanethiol : NOEC: 8.6 mg/l

Exposure time: 3 h

Growth rate

Respiration inhibition

Method: OECD Test Guideline 209

NOEC: > 10 mg/l Exposure time: 3 h Growth rate

Respiration inhibition

Method: OECD Test Guideline 209

## Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

tert-Dodecanethiol : NOEC: 0.0108 mg/l

Exposure time: 21 d

Species: Daphnia magna (Water flea)

semi-static test

Method: OECD Test Guideline 211 No toxicity at the limit of solubility.

Bioaccumulation

tert-Dodecanethiol : Species: Danio rerio (zebra fish)

Exposure time: 15 d

Bioconcentration factor (BCF): > 500 - < 1,950

Method: OECD Test Guideline 305

Biomagnification factor <1

The product may be accumulated in organisms.

Biodegradability

tert-Dodecanethiol : Result: Not readily biodegradable.

0 %

Testing period: 28 d

Method: OECD Test Guideline 301D

Pine Oil : This material is expected to be readily biodegradable.

## **Ecotoxicology Assessment**

Acute aquatic toxicity

tert-Dodecanethiol : No toxicity at the limit of solubility.

Pine Oil : Harmful to aquatic life.

Chronic aquatic toxicity

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tert-Dodecanethiol : May cause long lasting harmful effects to aquatic life.

Pine Oil : Harmful to aquatic life with long lasting effects.

Toxicity Data on Soil

tert-Dodecanethiol : Adsorbs on soil.

Results of PBT assessment

tert-Dodecanethiol : Non-classified PBT substance, Non-classified vPvB substance

Additional ecological

information

: May cause long lasting harmful effects to aquatic life.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., May cause long lasting

harmful effects to aquatic life.

#### **SECTION 13: Disposal considerations**

The information in this SDS pertains only to the product as shipped.

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

Product : The product should not be allowed to enter drains, water

courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed

waste management company.

Contaminated packaging : Empty remaining contents. Dispose of as unused product.

Do not re-use empty containers. Do not burn, or use a cutting

torch on, the empty drum.

## **SECTION 14: Transport information**

The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).

Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the SDS and the bill of lading.

## **US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)**

UN1268, PETROLEUM DISTILLATES, N.O.S., COMBUSTIBLE LIQUID, III

## IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

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#### IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)

UN3334, AVIATION REGULATED LIQUID, N.O.S., (TERT-DODECANETHIOL), 9, III

## ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

# RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

## ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

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

## **SECTION 15: Regulatory information**

**National legislation** 

SARA 311/312 Hazards : Fire Hazard

Acute Health Hazard

## **EPCRA - EMERGENCY PLANNING COMMUNITY RIGHT - TO - KNOW**

CERCLA Reportable

Quantity

: This material does not contain any components with a CERCLA

RQ.

SARA 302 Reportable

Quantity

: This material does not contain any components with a SARA

302 RQ.

SARA 302 Threshold Planning Quantity

: No chemicals in this material are subject to the reporting

requirements of SARA Title III, Section 302.

SARA 304 Reportable

Quantity

: This material does not contain any components with a section

304 EHS RQ.

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SARA 313 Ingredients : This material does not contain any chemical components with

known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### Clean Air Act

Potential

Ozone-Depletion : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR

82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

#### **US State Regulations**

Pennsylvania Right To Know

: tert-Dodecanethiol - 25103-58-6

California Prop. 65

Ingredients

: This product does not contain any chemicals known to the State

of California to cause cancer, birth, or any other reproductive

defects.

#### **Notification status**

Europe REACH On the inventory, or in compliance with the inventory

United States of America (USA) On TSCA Inventory

**TSCA** 

Switzerland CH INV On the inventory, or in compliance with the inventory

Canada DSL All components of this product are on the Canadian

Australia AICS On the inventory, or in compliance with the inventory New Zealand NZIoC On the inventory, or in compliance with the inventory Japan ENCS On the inventory, or in compliance with the inventory Korea KECI On the inventory, or in compliance with the inventory Philippines PICCS On the inventory, or in compliance with the inventory China IECSC On the inventory, or in compliance with the inventory

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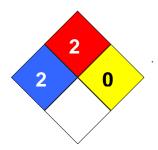
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#### **SECTION 16: Other information**

NFPA Classification : Health Hazard: 2

Fire Hazard: 2
Reactivity Hazard: 0



#### **Further information**

Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information in this SDS pertains only to the product as shipped.

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.

Key or legend to abbreviations and acronyms used in the safety data sheet				
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%	
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level	
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency	
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health	
CNS	Central Nervous System	NTP	National Toxicology Program	
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals	
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level	
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration	
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration	
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit	
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances	
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic	
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act	
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit	
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.	
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value	
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average	
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act	
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and	

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			Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		

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