

Version 2.1 Revision Date 2020-06-23

according to GB/T 16483 and GB/T 17519

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

**Product information** 

Product Name : Orfom® MCX Flotation Oil

Material : 1121555, 1118476, 1118475, 1117264, 1110866, 1016872

Company : Chevron Phillips Chemical Company LP

Specialty Chemicals 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: CHEMWATCH (+612 9186 1132) China: 0532 8388 9090 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

Argentina: +(54)-1159839431

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

GHS Classification and Labeling: Follow GB 13690, GB 15258 and GB 30000.2 to GB 30000.29 (GHS 2011)

# **Emergency Overview**

Danger

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

Hazards : Combustible liquid. May be fatal if swallowed and enters

airways.

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### Classification

: Flammable liquids, Category 4 Aspiration hazard, Category 1

## Labeling

Symbol(s) :

Signal Word : Danger

Hazard Statements : H227: Combustible liquid.

H304: May be fatal if swallowed and enters airways.

Precautionary Statements : Prevention:

P210: Keep away from heat/ sparks/ open flames/ hot

surfaces. No smoking.

P280: Wear protective gloves/ eye protection/ face protection.

Response:

P301+P310: IF SWALLOWED: Immediately call a POISON

CENTER/doctor.

P331: Do NOT induce vomiting.

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.

P405: Store locked up.

Disposal:

P501: Dispose of contents/ container to an approved waste

disposal plant.

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

Synonyms : Flotation Oil

Molecular formula : UVCB

Chemical name	CAS-No. / EINECS-No.	Concentration [wt%]
C13-C16 Isoalkanes	68551-20-2	0 - 100
C12-C14 Isoalkanes	68551-19-9	0 - 100
Distillate (Petroleum), Alkylate	64741-73-7	0 - 100

## **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 serious, potentially fatal pneumonia if swallowed or vomited.

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

advice. If symptoms persist, call a physician.

In case of skin contact : If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact : Flush eyes with water as a precaution. 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. 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 : 79°C (174°F)

Method: ASTM D 93

Autoignition temperature : No data available

Suitable extinguishing

media

: Carbon dioxide (CO2).

Unsuitable extinguishing

media

: High volume water jet.

Special protective

equipment for fire-fighters

: Wear self-contained breathing apparatus for firefighting if

necessary.

Further information : 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.

Hazardous decomposition

products

: Carbon oxides.

#### **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 local / national regulations (see section 13). Keep in suitable,

closed containers for disposal.

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

#### Handling

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

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. Observe label precautions. Electrical installations / working materials must

Control parameters

Note

comply with the technological safety standards.

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

#### Ingredients with workplace control parameters

Basis

Chevron Phillips Chemical Company LP

Components	Basis	Value	Control parameters	Note
C12-C14 Isoalkanes	Manufacturer	TWA	1,200 mg/m3	RCP,
DCD Designated Coloulation Procedure				

Value

RCP Reciprocal Calculation Procedure

Components				

#### Not applicable 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 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:. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure

levels are not known, or other circumstances where airpurifying respirators may not provide adequate protection.

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

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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. 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 : Mild

Safety data

Flash point : 79°C (174°F)

Method: ASTM D 93

Lower explosion limit : No data available

Upper explosion limit : No data available

Oxidizing properties : No

Autoignition temperature : No data available

Molecular formula : UVCB

Molecular weight : Not applicable

pH : 7

Pour point : No data available

Boiling point/boiling range : 214.4-316°C (417.9-601°F)

Vapor pressure : 0.36 MMHG

at 37.8°C (100.0°F)

Relative density : 0.79

at 15.6 °C (60.1 °F)

Density : 794.5 g/l

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Water solubility : Negligible

Partition coefficient: n-

Viscosity, kinematic

octanol/water

: No data available

: 3.3 cSt

at 38°C (100°F)

Relative vapor density : 1

(Air = 1.0)

Evaporation rate : < 1

## **SECTION 10: Stability and reactivity**

**Reactivity** : Stable under recommended storage conditions.

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

anticipated storage and handling conditions of temperature

and pressure.

Possibility of hazardous reactions

**Hazardous reactions** : Hazardous reactions: Hazardous polymerization does not

occur.

Further information: No decomposition if stored and applied as

directed.

Hazardous reactions: Vapors may form explosive mixture with

air.

Conditions to avoid : Heat, flames and sparks.

Materials to avoid : May react with oxygen and strong oxidizing agents, such as

chlorates, nitrates, peroxides, etc.

Hazardous decomposition

products

: Carbon oxides

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

Information given is based on data obtained from similar

substances.

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Acute inhalation toxicity : Acute toxicity estimate: > 5.3 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: Calculation method

Information given is based on data obtained from similar

substances.

Orfom® MCX Flotation Oil Acute dermal toxicity

: Acute toxicity estimate: > 2,000 mg/kg

Method: Calculation method

Information given is based on data obtained from similar

substances.

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Skin irritation

Repeated exposure may cause skin dryness or cracking.
 May irritate skin. largely based on animal evidence.
 Information given is based on data obtained from similar

substances.

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Eye irritation

No eye irritation

largely based on animal evidence. Information given is based

on data obtained from similar substances.

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Sensitization

: Did not cause sensitization on laboratory animals.

Information given is based on data obtained from similar

substances.

Repeated dose toxicity

C13-C16 Isoalkanes : Species: Rat, male and female

Sex: male and female

Application Route: oral gavage

Exposure time: 13 wk

Number of exposures: 7 d/wk

NOEL: > 5,000 mg/kg

Method: OECD Test Guideline 408

No significant adverse effects were reported Information given is based on data obtained from similar

substances.

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Species: Rat, male and female

Sex: male and female Application Route: Inhalation Exposure time: 13 wk Number of exposures: 6 h/d

NOEL: 30 mg/l

Method: OECD Test Guideline 413

No significant adverse effects were reported

Information given is based on data obtained from similar

substances.

Species: Rat, male and female

Sex: male and female Application Route: Dermal Exposure time: 13 wk Number of exposures: 5 d/wk

NOEL: > 495 mg/kg

Method: OECD Test Guideline 411

No significant adverse effects were reported

Information given is based on data obtained from similar

substances.

C12-C14 Isoalkanes Species: Rat, male and female

Sex: male and female

Application Route: oral gavage Dose: 500, 2500, 5000 mg/kg/d

Exposure time: 13 wk Number of exposures: daily NOEL: >= 5000 mg/kg/d

Method: OECD Test Guideline 408 No adverse effects expected

Information given is based on data obtained from similar

substances.

Species: Rat, male and female

Sex: male and female Application Route: Dermal Dose: 165, 330, 495 mg/kg Exposure time: 13 wk

Number of exposures: 5 d/wk NOEL: > 495 mg/kg/dMethod: OECD Guideline 411 No adverse effects expected

Information given is based on data obtained from similar

substances.

Species: Rat, male and female

Sex: male and female

Application Route: Inhalation

Dose: 5, 10, 30 mg/L Exposure time: 90 d Number of exposures: 6 h/d

NOEL: > 30 mg/l

Method: OECD Test Guideline 413 No adverse effects expected

Information given is based on data obtained from similar

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substances.

Distillate (Petroleum),

Alkylate Sex: male and female

Species: Rat, male and female

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Application Route: oral gavage

Exposure time: 13 wk Number of exposures: 7 d/wk

NOEL: > 5,000 mg/kg

Method: OECD Test Guideline 408

No significant adverse effects were reported

Information given is based on data obtained from similar

substances.

Species: Rat, male and female

Sex: male and female Application Route: Inhalation

NOEL: 30 mg/l

Method: OECD Test Guideline 413

No significant adverse effects were reported

Information given is based on data obtained from similar

substances.

## Genotoxicity in vitro

C13-C16 Isoalkanes : Test Type: Reverse mutation assay

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Remarks: Information given is based on data obtained from

similar substances.

Test Type: Cytogenetic assay Test system: Chinese hamster cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Remarks: Information given is based on data obtained from

similar substances.

Test Type: Mouse lymphoma assay

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Remarks: Information given is based on data obtained from

similar substances.

C12-C14 Isoalkanes Test Type: Ames test

Metabolic activation: with and without metabolic activation

Result: negative

Test Type: Mouse lymphoma assay

Metabolic activation: with and without metabolic activation

Result: negative

Test Type: Sister Chromatid Exchange Assay

Metabolic activation: with and without metabolic activation

Result: negative

## Reproductive toxicity

C13-C16 Isoalkanes : Species: Rat

Sex: male and female

Application Route: oral gavage

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Dose: 50, 100, 750 mg/kd/d

Exposure time: 70 d Number of exposures: Daily Method: OECD Test Guideline 416 NOAEL Parent: >= 750 mg/kg NOAEL F1: >= 750 mg/kg No adverse effects expected

Information given is based on data obtained from similar

substances.

C12-C14 Isoalkanes Species: Rat

Sex: male and female

Application Route: oral gavage Dose: 50, 200, 750 mg/kg/bw/d Number of exposures: daily

Test period: 70 d

Method: OECD Test Guideline 416 NOAEL Parent: >750 mg/kg/bw/d NOAEL F1: >750 mg/kg/bw/d No adverse effects expected

Information given is based on data obtained from similar

substances.

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

**CMR** effects

C13-C16 Isoalkanes : Carcinogenicity: Not available

Mutagenicity: In vitro tests did not show mutagenic effects Reproductive toxicity: No evidence of adverse effects on sexual function and fertility, or on development, based on

animal experiments.

C12-C14 Isoalkanes Carcinogenicity: Not available

Mutagenicity: Tests on bacterial or mammalian cell cultures did not show mutagenic effects., In vivo tests did not show

mutagenic effects

Teratogenicity: Animal testing did not show any effects on

fetal development.

Reproductive toxicity: Animal testing did not show any effects

on fertility.

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

## **SECTION 12: Ecological information**

Ecotoxicity effects Toxicity to fish

C13-C16 Isoalkanes : LL50: > 1,000 mg/l

Exposure time: 96 h

Species: Oncorhynchus mykiss (rainbow trout) static test Method: OECD Test Guideline 203

Information given is based on data obtained from similar

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substances.

C12-C14 Isoalkanes LL50: > 1,000 mg/l

Exposure time: 96 h

Species: Oncorhynchus mykiss (rainbow trout) semi-static test Method: OECD Test Guideline 203 Information given is based on data obtained from similar

substances.

Distillate (Petroleum),

Alkylate

LL50: > 1,000 mg/l

Exposure time: 96 h

Species: Oncorhynchus mykiss (rainbow trout)

static test Information given is based on data obtained from

similar substances.

## Toxicity to daphnia and other aquatic invertebrates

C13-C16 Isoalkanes : EL50: > 1,000 mg/l

Exposure time: 48 h

Species: Daphnia magna (Water flea)

Immobilization Method: OECD Test Guideline 202 Information given is based on data obtained from similar

substances.

C12-C14 Isoalkanes LL50: > 3,000 mg/l

Exposure time: 48 h

Species: Acartia tonsa (Marine Copepod)

static test Method: ISO 14669 and PARCOM method Information given is based on data obtained from similar

substances.

Distillate (Petroleum),

Alkylate

EL50: > 1,000 mg/l Exposure time: 48 h

Species: Daphnia magna Straus (Water flea) Immobilization Method: OECD Test Guideline 202 Information given is based on data obtained from similar

substances.

### Toxicity to algae

C13-C16 Isoalkanes : EL50: > 1,000 mg/l

Exposure time: 72 h

Species: Pseudokirchneriella subcapitata (green algae) Growth inhibition Method: OECD Test Guideline 201 Information given is based on data obtained from similar

substances.

C12-C14 Isoalkanes EL50: > 1,000 mg/l

Exposure time: 72 h

Species: Pseudokirchneriella subcapitata (green algae) Growth inhibition Method: OECD Test Guideline 201 Information given is based on data obtained from similar

substances.

Distillate (Petroleum),

Alkylate

EL50: > 1,000 mg/l Exposure time: 72 h

Species: Pseudokirchneriella subcapitata (algae) Growth inhibition Method: OECD Test Guideline 201

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## Toxicity to bacteria

C13-C16 Isoalkanes : > 100 mg/l

Exposure time: 3 h Respiration inhibition

Method: OECD Test Guideline 209

Information given is based on data obtained from similar

substances.

## **Toxicity to fish (Chronic toxicity)**

C12-C14 Isoalkanes : No data available:

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

C12-C14 Isoalkanes : No data available

Biodegradability

C13-C16 Isoalkanes : aerobic

Result: Readily biodegradable.

74 %

Testing period: 28 d

Method: OECD Test Guideline 306

Information given is based on data obtained from similar

substances.

C12-C14 Isoalkanes : aerobic

31.3 %

Testing period: 28 d

Method: OECD Test Guideline 301

Information given is based on data obtained from similar

substances.

Expected to be inherently biodegradable.

Distillate (Petroleum),

: aerobic

Alkylate

Result: Readily biodegradable.

74 %

Testing period: 28 d

Method: OECD Test Guideline 306

Information given is based on data obtained from similar

substances.

Elimination information (persistence and degradability)

Bioaccumulation : The product may be accumulated in organisms.

Mobility : immobile

Results of PBT assessment

C13-C16 Isoalkanes : Non-classified PBT substance, Non-classified vPvB substance

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C12-C14 Isoalkanes : Non-classified PBT substance, Non-classified vPvB substance

Additional ecological

information

: This material is not expected to be harmful to aquatic

organisms.

## **Ecotoxicology Assessment**

Short-term (acute) aquatic

hazard

: This material is not expected to be harmful to aquatic

organisms.

Long-term (chronic) aquatic

hazard

: This material is not expected to be harmful to aquatic

organisms.

### **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 : Do not dispose of waste into sewer. 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)**

UN3295, HYDROCARBONS, LIQUID, 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.

# IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)

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

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## 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**

**Notification status** 

Europe REACH Not in compliance with the inventory

Switzerland CH INV On the inventory, or in compliance with the inventory United States of America (USA) All substances listed as active on the TSCA inventory

**TSCA** 

Canada DSL All components of this product are on the Canadian

DSL

Australia AICS On the inventory, or in compliance with the inventory

New Zealand NZIoC This substance may be used as a component in a

product covered by a group standard but it is not approved for use as a chemical in its own right

Japan ENCS On the inventory, or in compliance with the inventory

Korea KECI A substance(s) in this product was not registered,

> notified to be registered, or exempted from registration by CPChem according to K-REACH regulations. Importation or manufacture of this product is still permitted provided the Korean Importer of Record has

themselves notified the substance.

Philippines PICCS Not in compliance with the inventory

China IECSC On the inventory, or in compliance with the inventory Taiwan TCSI On the inventory, or in compliance with the inventory

Other regulations Law on the Prevention and Control of Occupational

Diseases

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

#### **Further information**

Legacy SDS Number : 250860

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

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