

SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

EZ-MUD® PLUS

Revision Date: 01-May-2017

Revision Number: 23

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

1.1. Product Identifier

Product Name EZ-MUD® PLUS
Internal ID Code HM003646

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Additive
Sector of uses SU2 - Mining, (including offshore industries)
Process categories PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises
 PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities

Environmental release category(ies) ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles
 ERC7 - Industrial use of substances in closed systems

1.3. Details of the supplier of the safety data sheet

Halliburton Manufacturing Services, Ltd.
 Halliburton House, Howemoss Crescent
 Kirkhill Industrial Estate
 Dyce
 Aberdeen, AB21 0GN
 United Kingdom

www.halliburton.com

For further information, please contact

E-mail Address: fdunexchem@halliburton.com

1.4. Emergency telephone number

+44 8 08 189 0979 / 1-760-476-3961
 Global Incident Response Access Code: 334305
 Contract Number: 14012

Emergency telephone - \$45 - (EC)1272/2008	
Europe	112
Bulgaria	Bulgarian poison centre: +359 2 915-44-09 or +359 2 915-43-46
Croatia	Centar za kontrolu otrovanja (CKO): (+385 1) 23-48-342 (Poison Control Center (PCC) - Institute for Medical Research and Occupational Health)
Cyprus	00357 22 88 7171
Denmark	Poison Control Hotline (DK): +45 82 12 12 12
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Center Berlin (DE): +49 030 30686 790
Italy	Poison Center, Milan (IT): +39 02 6610 1029
Netherlands	National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
Norway	Poisons Information (NO): + 47 22 591300
Poland	Poison Control and Information Centre, Warsaw (PL): +48 22 619 66 54; +48 22 619 08 97
Portugal	CIAV - Centro de Informação Antivenenos (Portuguese Poison Centre): + 351 213 303 271
Romania	+40 21 318 36 06
Spain	Poison Information Service (ES): +34 91 562 04 20
United Kingdom	NHS Direct (UK): +44 0845 46 47

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture Regulation (EC) No 1272/2008

Not classified

2.2. Label Elements

Not classified

Hazard Pictograms

Signal Word: None

Hazard Statements:

Not Classified

Precautionary Statements:

None

Contains

Substances

Hydrotreated light petroleum distillate

Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched

CAS Number

64742-47-8

69011-36-5

2.3. Other Hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Mixture

Substances	EINECS	CAS Number	PERCENT (w/w)	EU - CLP Substance Classification	REACH Reg. No
Hydrotreated light petroleum distillate	265-149-8	64742-47-8	10 - 30%	Asp. Tox. 1 (H304)	01-2119484819-18
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	500-241-6	69011-36-5	1 - 5%	Acute Tox. 3 (H301) Eye Corr. 1 (H318) Aquatic Chronic 3 (H412)	No data available

For the full text of the H-phrases mentioned in this Section, see Section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

If inhaled, move victim to fresh air and seek medical attention.

Eyes

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

Skin

Wash with soap and water. Get medical attention if irritation persists. Remove contaminated shoes and discard.

Ingestion

Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical attention.

4.2. Most important symptoms and effects, both acute and delayed

May cause mild eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician

Treat symptomatically

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

5.2. Special hazards arising from the substance or mixture

Special exposure hazards in a fire

Decomposition in fire may produce harmful gases. Use water spray to cool fire exposed surfaces.

5.3. Advice for firefighters

Special protective equipment for firefighters

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing vapors. Ensure adequate ventilation.

See Section 8 for additional information

6.2. Environmental precautions

Prevent from entering sewers, waterways, or low areas.

6.3. Methods and material for containment and cleaning up

Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove.

6.4. Reference to other sections

See Section 8 and 13 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Ensure adequate ventilation. Wash hands after use. Launder contaminated clothing before reuse. Use appropriate protective equipment.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Store away from oxidizers. Keep container closed when not in use. Product has a shelf life of 12 months.

7.3. Specific end use(s)

Exposure scenario

No information available

Other Guidelines

No information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Substances	CAS Number	EU	UK	Netherlands	France
Hydrotreated light petroleum distillate	64742-47-8	Not applicable	Not applicable	Not applicable	Not applicable
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Germany	Spain	Portugal	Finland
Hydrotreated light petroleum distillate	64742-47-8	TWA: 5 mg/m ³ TWA: 50 ppm TWA: 350 mg/m ³ Peak: 20 mg/m ³ Peak: 100 ppm Peak: 700 mg/m ³	Not applicable	Not applicable	Not applicable
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Austria	Ireland	Switzerland	Norway
Hydrotreated light petroleum distillate	64742-47-8	Not applicable	Not applicable	Not applicable	Not applicable
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Italy	Poland	Hungary	Czech Republic
Hydrotreated light petroleum distillate	64742-47-8	Not applicable	Not applicable	Not applicable	Not applicable
Poly(oxy-1,2-ethanediyl), ,alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Denmark	Romania	Croatia	Cyprus	Bulgaria
Hydrotreated light petroleum distillate	64742-47-8	Not applicable				
Poly(oxy-1,2-ethanediyl), ,alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Not applicable				

Derived No Effect Level (DNEL)
Worker

No information available

General Population

Predicted No Effect Concentration (PNEC)

No information available.

8.2. Exposure controls

Engineering Controls

A well ventilated area to control dust levels. Local exhaust ventilation should be used in areas without good cross ventilation.

Personal protective equipment

If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

Respiratory Protection

Not normally needed. But if significant exposures are possible then the following respirator is recommended:

Organic vapor respirator with a dust/mist filter. (A2P2/P3)

Hand Protection

Impervious rubber gloves.

Skin Protection

Rubber apron.

Eye Protection

Chemical goggles; also wear a face shield if splashing hazard exists.

Other Precautions

None known.

Environmental Exposure Controls Do not allow material to contaminate ground water system

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State: Liquid

Color: White to gray

Odor: Mild hydrocarbon

Odor Threshold: No information available

Property

Values

Remarks/ - Method

pH:

No data available

Freezing Point / Range

No data available

Melting Point / Range

No data available

Boiling Point / Range

175 °C / 347 °F

Flash Point

> 93 °C / > 200 °F PMCC

Flammability (solid, gas)

No data available

Upper flammability limit

No data available

Lower flammability limit

No data available

Evaporation rate

< 1

Vapor Pressure

No data available

Vapor Density

No data available

Specific Gravity

1

Water Solubility

Partly soluble

Solubility in other solvents

No data available

Partition coefficient: n-octanol/water

No data available

Autoignition Temperature

No data available

Decomposition Temperature

No data available

Viscosity

> 20.5 mm²/s @ 40 oC

Explosive Properties

No information available

Oxidizing Properties

No information available

9.2. Other information

VOC Content (%)

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Not expected to be reactive.

10.2. Chemical stability

Stable

10.3. Possibility of hazardous reactions

Will Not Occur

10.4. Conditions to avoid

Keep away from heat, sparks and flame.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

Ammonia. Oxides of nitrogen. Carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects**Acute Toxicity****Inhalation**

May cause mild respiratory irritation.

Eye Contact

May cause mild eye irritation.

Skin Contact

May cause mild skin irritation.

Ingestion

May cause mild gastric distress.

Chronic Effects/Carcinogenicity

No data available to indicate product or components present at greater than 0.1% are chronic health hazards.

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydrotreated light petroleum distillate	64742-47-8	>5000 mg/kg-bw (rat) (similar substance)	>2000 mg/kg-bw (rabbit) (similar substance)	>5.2 mg/L (rat, 4 h, vapor) (similar substance)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	200-300 mg/kg-bw (rat)	>2000 mg/kg-bw (rabbit)	No data available

Substances	CAS Number	Skin corrosion/irritation
Hydrotreated light petroleum distillate	64742-47-8	Non-irritating to the skin (similar substances)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Non-irritating to the skin Not a dermal irritant

Substances	CAS Number	Serious eye damage/irritation
Hydrotreated light petroleum distillate	64742-47-8	Non-irritating to rabbit's eye (similar substances)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Causes severe eye irritation which may damage tissue. Causes serious eye damage (similar substances)

Substances	CAS Number	Skin Sensitization
Hydrotreated light petroleum distillate	64742-47-8	Did not cause sensitization on laboratory animals (guinea pig) (similar substances)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Did not cause sensitization on laboratory animals (guinea pig)

Substances	CAS Number	Respiratory Sensitization
Hydrotreated light petroleum distillate	64742-47-8	No information available
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	No information available

Substances	CAS	Mutagenic Effects
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	Number	
Hydrotreated light petroleum distillate	64742-47-8	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects. (similar substances)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects. (similar substances)

Substances	CAS Number	Carcinogenic Effects
Hydrotreated light petroleum distillate	64742-47-8	Did not show carcinogenic effects in animal experiments (similar substances)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Did not show carcinogenic effects in animal experiments (similar substances)

Substances	CAS Number	Reproductive toxicity
Hydrotreated light petroleum distillate	64742-47-8	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.

Substances	CAS Number	STOT - single exposure
Hydrotreated light petroleum distillate	64742-47-8	No significant toxicity observed in animal studies at concentration requiring classification.
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	STOT - repeated exposure
Hydrotreated light petroleum distillate	64742-47-8	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	Aspiration hazard
Hydrotreated light petroleum distillate	64742-47-8	Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Not applicable

SECTION 12: Ecological information

12.1. Toxicity

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Hydrotreated light petroleum distillate	64742-47-8	ErL50(72 h)>10000 mg/L (Skeletonema costatum)	LC50(96 h)>10000 mg/L (Scophthalmus maximus) NOELC(28 d)>1000 mg/L (fish)	No information available	LC50(48 h)>10000 mg/L (Acartia tonsa) NOEC(21 d)=1000 mg/L (Daphnia magna)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	IC50(72 h)=1-10 mg/L (Desmodesmus subspicatus)	LC50(96 h)=1-10 mg/L (Cyprinus carpio)	No information available	EC50(48 h)=1-10 mg/L (Daphnia magna) EC50(21 d)=0.37 mg/L (Daphnia magna)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Hydrotreated light petroleum distillate	64742-47-8	Readily biodegradable (68.1% @ 28d)
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Readily biodegradable (> 60% @ 28d)

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Hydrotreated light petroleum distillate	64742-47-8	Not Applicable
Poly(oxy-1,2-ethanediyl), [alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	LogPow=4.9

12.4. Mobility in soil

Substances	CAS Number	Mobility
Hydrotreated light petroleum distillate	64742-47-8	No information available
Poly(oxy-1,2-ethanediyl), [alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	No information available

12.5. Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

Substances	PBT and vPvB assessment
Hydrotreated light petroleum distillate	Not PBT/vPvB

12.6. Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods

Disposal should be made in accordance with federal, state, and local regulations.

Contaminated Packaging

Follow all applicable national or local regulations.

SECTION 14: Transport information

IMDG/IMO

UN Number	Not restricted
UN proper shipping name:	Not restricted
Transport Hazard Class(es):	Not applicable
Packing Group:	Not applicable
Environmental Hazards:	Not applicable

RID

UN Number	Not restricted
UN proper shipping name:	Not restricted
Transport Hazard Class(es):	Not applicable
Packing Group	Not applicable
Environmental Hazards:	Not applicable

ADR

UN Number	Not restricted
UN proper shipping name:	Not restricted
Transport Hazard Class(es):	Not applicable
Packing Group	Not applicable
Environmental Hazards:	Not applicable

IATA/ICAO

UN Number	Not restricted
UN proper shipping name:	Not restricted
Transport Hazard Class(es):	Not applicable
Packing Group:	Not applicable
Environmental Hazards:	Not applicable

14.1. UN Number Not restricted

14.2. UN proper shipping name: Not restricted

14.3. Transport Hazard Class(es): Not applicable

14.4. Packing Group Not applicable

14.5. Environmental Hazards: Not applicable

14.6. Special Precautions for User None

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable

SECTION 15: Regulatory information

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

International Inventories

EINECS (European Inventory of Existing Chemical Substances)	This product does not comply with EINECS
US TSCA Inventory	All components listed on inventory or are exempt.
Canadian Domestic Substances List (DSL)	All components listed on inventory or are exempt.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

Germany, Water Endangering Classes (WGK) WGK 2: Hazard to waters.

15.2. Chemical safety assessment

No information available

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3

H301 - Toxic if swallowed
 H304 - May be fatal if swallowed and enters airways
 H318 - Causes serious eye damage
 H412 - Harmful to aquatic life with long lasting effects

Key or legend to abbreviations and acronyms used in the safety data sheet

bw – body weight
 CAS – Chemical Abstracts Service
 CLP – REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Classification, Labelling and Packaging of substances and mixtures
 EC – European Commission
 EC10 – Effective Concentration 10%
 EC50 – Effective Concentration 50%
 EEC – European Economic Community
 ErC50 – Effective Concentration growth rate 50%
 IBC Code – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 LC50 – Lethal Concentration 50%
 LD50 – Lethal Dose 50%
 LL0 – Lethal Loading 0%
 LL50 – Lethal Loading 50%
 MARPOL – International Convention for the Prevention of Pollution from Ships
 mg/kg – milligram/kilogram
 mg/L – milligram/liter
 NIOSH – National Institute for Occupational Safety and Health
 NOEC – No Observed Effect Concentration
 NTP – National Toxicology Program
 OEL – Occupational Exposure Limit
 PBT – Persistent Bioaccumulative and Toxic
 PC – Chemical Product category
 PEL – Permissible Exposure Limit
 ppm – parts per million
 PROC – Process category
 REACH – REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
 STEL – Short Term Exposure Limit
 SU – Sector of Use category

Key literature references and sources for data

www.ChemADVISOR.com/
OSHA
ECHA C&L

Revision Date: 01-May-2017

Revision Note

SDS sections updated:

2

This safety data sheet complies with the requirements of Regulation (EC) No. 453/2010

Disclaimer Statement

This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of the user.

End of Safety Data Sheet

Annex to SDS					
Substances	CAS Number	Process categories	Environmental release category	Product category(ies)	Sector of uses
Hydrotreated light petroleum distillate	64742-47-8	PROC4; PRO8b	ERC4; ERC7	-	SU2a; SU2b

Exposure Scenario

Application of bulk onshore/offshore oilfield liquid or solid/powder.

1. Title Section

Use Use in batch process where opportunities for exposure arise.
 Transfer from support vessel to installation.
 Transfer from bulk/ IBC/ drum to on-site storage, transfer to process.
 Transfer from pot/tin/tube to process. On-site sampling and testing e.g. QC

Sector of uses SU2a - Mining, (without offshore industries)
 SU2b - Offshore industries

Worker

Process categories PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises
 PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities

Product category(ies) Not applicable
Article categories Not applicable

Environmental

Environmental release category(ies) ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles
 ERC7 - Industrial use of substances in closed systems

2. Conditions of use affecting exposure

Control of environmental exposure

Amount used, frequency and duration of use (or from service life)

Substances	Daily Amount Per Site	Annual site tonnage	Frequency	Duration of use
Hydrotreated light petroleum distillate	ERC4: 5000 kg ERC7: 5000 kg	ERC4: 100 ERC7: 100	-	ERC4: 20 d/y ERC7: 20 d/y

Technical and organisational conditions and measures

Substances	Technical and organisational conditions and measures
Hydrotreated light petroleum distillate	Common practices vary across sites thus conservative process release estimates are used. Vapour pressure of substance/mixture 0.5 – 10 kPa at STP: Treat air emissions to provide a typical removal efficiency of 70%. Vapour pressure of substance/mixture < 0.03 kPa at STP: Emission controls not required. Risk from environmental exposure is driven by freshwater. Prevent discharge of undissolved substance to or recover from onsite wastewater.

Conditions and measures related to sewage treatment plant

Substances	Conditions and measures related to sewage treatment plant
Hydrotreated light petroleum distillate	Apply technical measures aiming at reduction and cleaning of waste water (WWTP /local STP (e.g. biological treatment)). Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.

Substances	Assumed municipal sewage treatment plant flow m3/d	Wastewater Emission Removal Efficiency	Estimated product removal from wastewater via municipal sewage treatment
Hydrotreated light petroleum distillate	ERC4: 2000 ERC7: 2000	ERC4: 94.7% ERC7: 94.7%	ERC4: 94.7% ERC7: 94.7%

Conditions and measures related to treatment of waste (including article waste)

Substances	Conditions and measures related to treatment of waste (including article waste)
Hydrotreated light petroleum distillate	Exhausted fluids, contaminated mainly by hydrocarbons of the reservoir formation and rock cuttings, are collected in dedicated concrete pits for temporary storing. Then they are removed off site and sent to a properly licensed landfill for disposal. In off-shores activities exhausted drilling fluids are collected in appropriate tanks on the platform for temporary storing. From the tanks the fluids are pumped to support ships, that transport them to terrestrial sites for treatment and disposal.

Other conditions affecting environmental exposure

Substances	Receiving surface water flow m3/d	Degradation
Hydrotreated light petroleum distillate	1800	40% @ 28d

Control of Worker Exposure

Product (article) characteristics

Physical State:	Liquid
Vapor Pressure	No information available
Dustiness	Not applicable

Substances	Limit the substance content in the product to
Hydrotreated light petroleum distillate	100%

Amount used (or contained in articles), frequency and duration of use/exposure

Substances	Amounts used (daily)	Covers daily exposures up to (hours/day)	Frequency (days/year)
Hydrotreated light petroleum distillate	-	8	-

Technical and organisational conditions and measures

Substances	Technical and organisational conditions and measures
Hydrotreated light petroleum distillate	Ensure material transfers are under containment or extract ventilation. Use drum pumps or carefully pour from container.

Conditions and measures related to personal protection, hygiene and health evaluation

Substances	Conditions and measures related to personal protection, hygiene and health evaluation
Hydrotreated light petroleum distillate	Use suitable eye protection. Wear suitable gloves tested to EN374. Refer to section 8 of the SDS.

Other conditions affecting workers exposure

Substances	Other conditions affecting workers exposure
Hydrotreated light petroleum distillate	Provide basic employee training to prevent/minimize exposures. Avoid contact with skin and clothing. Wash off immediately with plenty of water. Clear spills immediately. Assumes use at not more than 20°C above ambient temperature (unless stated differently).

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply

Substances	Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply
Hydrotreated light petroleum distillate	Wash hands after use. Launder contaminated clothing before reuse. Personal measures have to be applied in case of potential exposure only.

3. Exposure estimation and reference to its source

Environmental release and exposure

Substances	Environmental release and exposure
Hydrotreated light petroleum distillate	Substance is a complex UVCB. Predominantly hydrophobic. The Hydrocarbon Block Method with the Petrorisk model is used for environmental risk assessment. When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed the resulting risk characterisation ratios are expected to be less than 1. PNECs have been derived using HC5statistical extrapolation method and the target lipid model using representative structures.

Substances	Protection Target	Exposure estimate (based on: EUSES)	Unit	RCR

		2.1.2)		
Hydrotreated light petroleum distillate	Freshwater	0.0066	mg/L	-
	Marine water	0.00066	mg/L	
	Sediment (freshwater)	0.12	mg/kg dw	
	Sediment (marine water)	0.000066	mg/kg dw	
	Agricultural soil	0.0074	mg/kg dw	
	Sewage treatment plant	0.066	mg/L	

Worker exposure

Substances	Route of exposure and type of effects	Exposure estimate PROC4	Assessment Method	RCR
Hydrotreated light petroleum distillate	Long-term exposure - systemic effects, Inhalation mg/m ³	2	ECETOC TRA	0.05
	Long-term exposure - systemic effects, Dermal mg/kg bw/day	0		-
	Combined routes, systemic, long-term mg/kg bw/day	2		0.05

Substances	Route of exposure and type of effects	Exposure estimate PROC8b	Assessment Method	RCR
Hydrotreated light petroleum distillate	Long-term exposure - systemic effects, Inhalation mg/m ³	1.5 – 35	ECETOC TRA	0.038–0.875
	Long-term exposure - systemic effects, Dermal mg/kg bw/day	0		-
	Combined routes, systemic, long-term mg/kg bw/day	1.5 – 35		0.038–0.875

4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Scaling method
Scaling parameters

For scaling see: <http://www.ecetoc.org/tra>, ECETOC TRA worker v2.3, modified version.
The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his implemented risk management measures are adequate.