

SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

DIESEL FUEL

Revision Date: 03-Mar-2014

Revision Number: 12

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier

Product Name DIESEL FUEL

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

Recommended Use	Fuel
Sector of use	SU2 - Mining, (including offshore industries) SU3 - Industrial uses
Product category	PC20 - Products such as pH-regulators, flocculants, precipitants, neutralization agents, other unspecific
Process categories	PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises

1.3 Details of the supplier of the safety data sheet

Halliburton Energy Services
Halliburton House, Howemoss Place
Kirkhill Industrial Estate
Dyce
Aberdeen, AB21 0GN
United Kingdom

Emergency Phone Number: +44 1224 795277 or +1 281 575 5000

www.halliburton.com

For further information, please contact

E-Mail address: fdunexchem@halliburton.com

1.4 Emergency telephone number
+44 1224 795277 or +1 281 575 5000

Emergency telephone - §45 - (EC)1272/2008	
Europe	112
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
Spain	Poison Information Service (ES): +34 91 562 04 20
United Kingdom	NHS Direct (UK): +44 0845 46 47

2. Hazards Identification

2.1 Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Aspiration Category	Category 1 - H304
Acute Inhalation Toxicity - Vapors	Category 4 - H332

Skin Corrosion / irritation	Category 2 - H315
Carcinogenicity	Category 2 - H351
Specific Target Organ Toxicity - (Repeated Exposure)	Category 2 - H373
Chronic Aquatic Toxicity	Chronic 2 - H411

Classification according to EU Directives 67/548/EEC or 1999/45/EC

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

Classification Xn - Harmful.

Risk Phrases

R20 Harmful by inhalation.
R38 Irritating to skin.
R40 Limited evidence of a carcinogenic effect.
R65 Harmful: may cause lung damage if swallowed.
R53 May cause long-term adverse effects in the aquatic environment.
R48/21 Harmful: danger of serious damage to health by prolonged exposure in contact with skin.

2.2 Label Elements**Hazard Pictograms**

Signal Word

Danger

Hazard Statements

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation

H332 - Harmful if inhaled

H351 - Suspected of causing cancer

H373 - May cause damage to organs through prolonged or repeated exposure in contact with skin

H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements - EU (§28, 1272/2008)

P281 - Use personal protective equipment as required

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing

P312 - Call a POISON CENTER or doctor/physician if you feel unwell

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

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

Contains**Substances**

Diesel

CAS Number

68476-34-6

2.3 Other Hazards

None known

3. Composition/information on Ingredients

Substances	EINECS	CAS Number	PERCENT (w/w)	EEC Classification	EU - CLP Substance Classification	REACH No.
------------	--------	------------	---------------	--------------------	-----------------------------------	-----------

Diesel	270-676-1	68476-34-6	60 - 100%	Xn; R20 R48/21 R65 Carc.Cat.3; R40 Xi; R38 R53	Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Carc. 2 (H351) STOT-RE 2 (H373) Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411)	No data available
--------	-----------	------------	-----------	--	---	-------------------

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

4. First aid measures

4.1 Description of first aid measures

Inhalation	If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.
Eyes	In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.
Skin	In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention. Remove contaminated clothing and launder before reuse.
Ingestion	Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration.
Skin contact	No information available

4.2 Most Important symptoms and effects, both acute and delayed

May cause skin irritation. Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal. May be harmful if inhaled Potential carcinogen.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

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

Use water spray to cool fire exposed surfaces. Closed containers may explode in fire. Decomposition in fire may produce toxic gases.

5.3 Advice for firefighters

Special Protective Equipment for Fire-Fighters

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

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment. Wear self-contained breathing apparatus in enclosed areas.
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.

7. Handling and Storage

7.1 Precautions for Safe Handling

Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Wash hands after use. Launder contaminated clothing before reuse.

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 from heat, sparks, and open flames. Keep container closed when not in use.

7.3 Specific End Use(s)

Exposure Scenario

No information available

Other Guidelines

No information available

8. Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits

Substances	CAS Number	EU	UK OEL	Netherlands	France OEL
Diesel	68476-34-6	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Germany MAK/TRK	Spain	Portugal	Finland
Diesel	68476-34-6	Not applicable	Not applicable	TWA: 100 mg/m ³	Not applicable

Substances	CAS Number	Austria	Ireland	Switzerland	Norway
Diesel	68476-34-6	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Italy	Poland	Hungary	Czech Republic
Diesel	68476-34-6	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Denmark
Diesel	68476-34-6	Not applicable

Derived No Effect Level (DNEL)

No information available.

Worker

General Population

Predicted No Effect Concentration (PNEC)

No information available.

8.2 Exposure controls

Engineering Controls

Use in a well ventilated area. Local exhaust ventilation should be used in areas without good cross ventilation.

Personal protective equipment

Respiratory Protection

Organic vapor respirator.

Hand Protection

Impervious rubber gloves.

Skin Protection

Rubber apron.

Eye Protection

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

Other Precautions

Eyewash fountains and safety showers must be easily accessible.

Environmental Exposure Controls

No information available

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical State: Liquid

Color: Clear colorless

Odor: Diesel

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	148
Flash Point	> 65 °C PMCC
upper flammability limit	6%
lower flammability limit	0.7%
Evaporation rate	No data available
Vapor Pressure	1
Vapor Density	No data available
Specific Gravity	0.84
Water Solubility	Insoluble in water
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition Temperature	257 °C
Decomposition Temperature	No data available
Viscosity	No data available
Explosive Properties	No information available
Oxidizing Properties	No information available

9.2 Other information

VOC Content (%)	No data available
------------------------	-------------------

10. Stability and Reactivity

10.1 Reactivity

Not applicable

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

Carbon monoxide and carbon dioxide.

11. Toxicological Information

11.1 Information on Toxicological EffectsAcute Toxicity**Inhalation**

May cause respiratory irritation. May cause central nervous system depression including headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.

Eye Contact

May cause eye irritation

Skin Contact

May cause skin defatting with prolonged exposure. May cause skin irritation.

Ingestion

Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

Chronic Effects/Carcinogenicity

Contains petroleum distillates which have been shown to cause skin cancer in laboratory animals.

The International Agency for Research on Cancer (IARC) has evaluated naphthalene and determined it to be a possible carcinogen to humans (Group 2B, based on sufficient evidence in experimental animals and inadequate evidence in humans).

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Diesel	68476-34-6	7,600 mg/kg (Rat)	> 4300 mg/kg (Rabbit)	4.1 mg/L (Rat, vapour, 4h)

Substances	CAS Number	Skin corrosion/irritation
Diesel	68476-34-6	Irritating to skin. (rabbit)

Substances	CAS Number	Eye damage/irritation
Diesel	68476-34-6	Non-irritating to the eye (rabbit)

Substances	CAS Number	Skin Sensitization
Diesel	68476-34-6	Did not cause sensitization on laboratory animals (guinea pig)

Substances	CAS Number	Respiratory Sensitization
Diesel	68476-34-6	No information available

Substances	CAS Number	Mutagenic Effects
Diesel	68476-34-6	Some in vitro tests have shown mutagenic effects. In vivo tests did not show mutagenic effects.

Substances	CAS Number	Carcinogenic Effects
Diesel	68476-34-6	Contains petroleum distillates which have been shown to cause skin cancer in laboratory animals.

Substances	CAS Number	Reproductive toxicity
Diesel	68476-34-6	Animal testing did not show any effects on fertility. (fetotoxic and teratogenic effects).

Substances	CAS Number	STOT - single exposure
Diesel	68476-34-6	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	STOT - repeated exposure
Diesel	68476-34-6	Causes damage to organs through prolonged or repeated exposure in contact with skin (Liver) thymus bone marrow

Substances	CAS Number	Aspiration hazard
Diesel	68476-34-6	Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

12. Ecological Information

12.1 Toxicity Ecotoxicity Effects

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Diesel	68476-34-6	EL50(72h): 10 mg/L (Pseudokirchnerella subcapitata) NOEL(72h): 1 mg/L (Pseudokirchnerella subcapitata)	LC50: 35 mg/l (Pimephales promelas) LL50(96h): 21 mg/L (Oncorhynchus mykiss)	No information available	EL50(48h): 210 mg/L (Daphnia magna) NOEL(48h): 46 mg/L (Daphnia magna)

12.2 Persistence and degradability

Not readily biodegradable

Substances	CAS Number	Persistence and Degradability
Diesel	68476-34-6	(57.5% @ 28d)

12.3 Bioaccumulative potential

Substances	CAS Number	Log Pow
------------	------------	---------

Diesel	68476-34-6	No information available
--------	------------	--------------------------

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects**Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors

13. Disposal Considerations

13.1 Waste treatment methods**Disposal Method**

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

Contaminated Packaging

Follow all applicable national or local regulations.

14. Transport Information

IMDG/IMO

UN Number:	Not restricted.
UN Proper Shipping Name:	
	Not restricted except for ADR
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 except for ADR
Transport Hazard Class(es):	Not applicable
Packing Group:	Not applicable
Environmental hazard:	Not applicable

ADR

UN Number:	Not restricted.
UN Proper Shipping Name:	
	Not restricted except for ADR
Transport Hazard Class(es):	Not applicable
Packing Group:	Not applicable
Environmental hazard:	Not applicable

IATA/ICAO

UN Number:	Not restricted.
UN Proper Shipping Name:	
	Not restricted except for ADR
Transport Hazard Class(es):	Not applicable
Packing Group:	Not applicable
Environmental hazard:	Not applicable

Special Precautions for User None**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**International Inventories**

EINECS Inventory	This product, and all its components, complies with EINECS
US TSCA Inventory	All components listed on inventory or are exempt.
Canadian DSL Inventory	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/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

**Germany, Water Endangering
Classes (WGK)** Not determined.

15.2 Chemical Safety Assessment

No information available

16. Other Information**Full text of R-phrases referred to under Sections 2 and 3**

R20 Harmful by inhalation.

R38 Irritating to skin.

R40 Limited evidence of a carcinogenic effect.

R48/21 Harmful: danger of serious damage to health by prolonged exposure in contact with skin.

R53 May cause long-term adverse effects in the aquatic environment.

R65 Harmful: may cause lung damage if swallowed.

Key literature references and sources for data

www.ChemADVISOR.com/

Revision Date: 03-Mar-2014

Revision Note

Not applicable

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