

SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

DCA-31002

Revision Date: 05-Aug-2014

Revision Number: 4

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product Identifier****Product Name** DCA-31002**1.2. Relevant identified uses of the substance or mixture and uses advised against****Recommended Use** Anti-sludging Agent**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

SECTION 2: Hazards Identification**2.1. Classification of the substance or mixture****REGULATION (EC) No 1272/2008**

Acute Oral Toxicity	Category 4 - (H302)
Skin Corrosion / irritation	Category 1 - (H314)
Serious Eye Damage / Eye Irritation	Category 2 - (H318)
Specific Target Organ Toxicity - (Single Exposure)	Category 3 - (H336)
Chronic Aquatic Toxicity	Chronic 2 - (H411)
Flammable liquids.	Category 3 - (H272)
Substances/mixtures corrosive to metal	Category 1 - (H290)

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

F - Highly Flammable.
 C - Corrosive.
 Xn - Harmful.

Risk Phrases

R11 Highly flammable.
 R22 Harmful if swallowed.
 R35 Causes severe burns.
 R67 Vapours may cause drowsiness and dizziness.

2.2. Label Elements**Hazard Pictograms****Signal Word****Danger****Hazard Statements**

H314 - Causes severe skin burns and eye damage
 H318 - Causes serious eye damage
 H302 - Harmful if swallowed
 H336 - May cause drowsiness or dizziness
 H272 - May intensify fire; oxidizer
 H290 - May be corrosive to metals
 H411 - Toxic to aquatic life with long lasting effects

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

P301+ P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
 P363 - Wash contaminated clothing before reuse
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
 P370 + P378 - In case of fire: Use water spray for extinction

Contains**Substances**

Dodecylbenzene sulfonic acid
 Isopropanol

CAS Number

27176-87-0
 67-63-0

2.3. Other Hazards

None known

SECTION 3: Composition/information on Ingredients

Substances	EINECS	CAS Number	PERCENT (w/w)	EEC Classification	EU - CLP Substance Classification	REACH No.
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Dodecylbenzene sulfonic acid	248-289-4	27176-87-0	60 - 100%	C; R34 Xn; R22 N; 51/53	Corrosive to metals (H290) Acute Tox. 4 (H302) Skin Corr. 1 (H314) Eye Dam. 1 (H318) Aquatic Chronic 2 (H411)	No data available
Isopropanol	200-661-7	67-63-0	10 - 30%	F; R11 Xi; R36 R67	Eye Irrit. 2 (H319) STOT SE 3 (H336) Flam. Liq. 2 (H225)	01-2119457558-25

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

3.1. Substances

Not applicable

3.2. Mixtures

Mixture

SECTION 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	Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

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

May cause eye burns. May cause skin and respiratory irritation. May cause headache, dizziness, and other central nervous system effects. May cause allergic skin reaction.

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

May be ignited by heat, sparks or flames. Closed containers may explode in fire. Use water spray to cool fire exposed surfaces. 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.

SECTION 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. Remove ignition sources and work with non-sparking tools. 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. Wash hands after use. Launder contaminated clothing before reuse. Ground and bond containers when transferring from one container to another.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

7.2. Conditions for safe storage, including any incompatibilities

Store in a well ventilated area. Keep container closed when not in use. Store away from alkalis. Store away from oxidizers. Keep from heat, sparks, and open flames. Product has a shelf life of 24 months. Store locked up.

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 OEL	Netherlands	France OEL
Dodecylbenzene sulfonic acid	27176-87-0	Not applicable	Not applicable	Not applicable	Not applicable
Isopropanol	67-63-0	Not applicable	STEL: 500 ppm STEL: 1250 mg/m ³ TWA: 400 ppm TWA: 999 mg/m ³	Not applicable	Not applicable

Substances	CAS Number	Germany MAK/TRK	Spain	Portugal	Finland
Dodecylbenzene sulfonic acid	27176-87-0	Not applicable	Not applicable	Not applicable	Not applicable
Isopropanol	67-63-0	TWA: 200 ppm TWA: 500 mg/m ³ MAK: 200 ppm MAK: 500 mg/m ³	500 ppm VLA-EC; 1250 mg/m ³ VLA-EC VLA-ED: 400 ppm VLA-ED: 998 mg/m ³	STEL: 400 ppm TWA: 200 ppm	STEL: 250 ppm STEL: 620 mg/m ³ TWA: 200 ppm TWA: 500 mg/m ³

Substances	CAS Number	Austria	Ireland	Switzerland	Norway
Dodecylbenzene sulfonic acid	27176-87-0	Not applicable	Not applicable	Not applicable	Not applicable
Isopropanol	67-63-0	Not applicable	Not applicable	Not applicable	STEL: 150 ppm STEL: 306.25 mg/m ³ TWA: 100 ppm TWA: 245 mg/m ³

Substances	CAS Number	Italy	Poland	Hungary	Czech Republic
Dodecylbenzene sulfonic acid	27176-87-0	Not applicable	Not applicable	Not applicable	Not applicable
Isopropanol	67-63-0	Not applicable	NDSch: 1200 mg/m ³ NDS: 900 mg/m ³	TWA: 500 mg/m ³ STEL: 2000 mg/m ³	TWA: 500 mg/m ³

Substances	CAS Number	Denmark
Dodecylbenzene sulfonic acid	27176-87-0	Not applicable
Isopropanol	67-63-0	TWA: 200 ppm TWA: 490 mg/m ³

Derived No Effect Level (DNEL)

No information available.

Worker

Substances	Long-term exposure - systemic effects, Inhalation	Acute / short term exposure - systemic effects, Inhalation	Long-term exposure - local effects, Inhalation	Acute / short term exposure - local effects, Inhalation	Long-term exposure - systemic effects, Dermal	Acute / short term exposure - systemic effects, Dermal	Long-term exposure - local effects, Dermal	Acute / short term exposure - local effects, Dermal	Hazards for the eyes - local effects
Isopropanol	500 mg/m ³	Not available	Not available	Not available	888 mg/kg bw/day	Not available	Not available	Not available	Not available

General Population

Substances	Long-term exposure - systemic effects, Inhalation	Acute / short term exposure - systemic effects, Inhalation	Long-term exposure - local effects, Inhalation	Acute / short term exposure - local effects, Inhalation	Long-term exposure - systemic effects, Dermal	Acute / short term exposure - systemic effects, Dermal	Long-term exposure - local effects, Dermal	Acute / short term exposure - local effects, Dermal	Long-term exposure - systemic effects, Oral	Acute / short term exposure - local effects, Oral	Hazards for the eyes - local effects
Isopropanol	89 mg/m ³	Not available	Not available	Not available	319 mg/kg bw/day	Not available	Not available	Not available	26 mg/kg bw/day	Not available	Not available

Predicted No Effect Concentration (PNEC)

No information available.

Substances	Freshwater	Marine water	Intermittent release	Sewage treatment plant	Sediment (freshwater)	Sediment (marine water)	Air	Soil	Secondary poisoning
Isopropanol	140.9 mg/L	140.9 mg/L	140.9 mg/L	2251 mg/L	552 mg/kg sediment dw	552 mg/kg sediment dw	Not available	28 mg/kg soil dw	160 mg/kg food

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

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

Organic vapor/acid gas respirator with a dust/mist filter.

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**SECTION 9: Physical and Chemical Properties****9.1. Information on basic physical and chemical properties**

Physical State: Liquid
Odor: Alcohol

Color: Dark brown
Odor Threshold: No information available

Property

Remarks/ - Method

Values**pH:**

1

Freezing Point/Range

No data available

Melting Point/Range

No data available

Boiling Point/Range

No data available

Flash Point

35 °C PMCC

Evaporation rate

No data available

Vapor Pressure

No data available

Vapor Density

No data available

Specific Gravity

1.03

Water Solubility

Soluble in water

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

No data available

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 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. Strong alkalis.

10.6. Hazardous Decomposition Products

Oxides of sulfur. Carbon monoxide and carbon dioxide.

SECTION 11: Toxicological Information**11.1. Information on Toxicological Effects****Acute Toxicity****Inhalation**

Causes severe 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 burns.

Skin Contact

Causes severe burns. May cause an allergic skin reaction. May be absorbed through the skin and produce effects similar to those caused by inhalation and/or ingestion.

Ingestion

Causes burns of the mouth, throat and stomach. May cause central nervous system depression including headache, dizziness, drowsiness, muscular weakness, incoordination, slowed reaction time, fatigue blurred vision, slurred speech, giddiness, tremors and convulsions.

Chronic Effects/Carcinogenicity

Repeated overexposure may cause liver and kidney effects.

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Dodecylbenzene sulfonic acid	27176-87-0	500 mg/kg (Rat)	No data available	No data available
Isopropanol	67-63-0	4396 mg/kg (Rat) 5840 mg/kg (Rat) 3600 mg/kg (Mouse)	12800 mg/kg (Rat) 12870 mg/kg (Rabbit) 16.4 mL/kg (Rabbit)	72.6 mg/L (Rat) 4h >10000 ppm (Rat) 6h

Substances	CAS Number	Skin corrosion/irritation
Dodecylbenzene sulfonic acid	27176-87-0	Causes severe irritation and or burns
Isopropanol	67-63-0	Non-irritating to the skin (rabbit)

Substances	CAS Number	Eye damage/irritation
Dodecylbenzene sulfonic acid	27176-87-0	Causes severe irritation and or burns
Isopropanol	67-63-0	Causes severe eye irritation (rabbit)

Substances	CAS Number	Skin Sensitization
Dodecylbenzene sulfonic acid	27176-87-0	No information available
Isopropanol	67-63-0	Did not cause sensitization on laboratory animals (guinea pig)

Substances	CAS Number	Respiratory Sensitization
Dodecylbenzene sulfonic acid	27176-87-0	No information available
Isopropanol	67-63-0	No information available

Substances	CAS Number	Mutagenic Effects
Dodecylbenzene sulfonic acid	27176-87-0	No information available
Isopropanol	67-63-0	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects.

Substances	CAS Number	Carcinogenic Effects
Dodecylbenzene sulfonic acid	27176-87-0	No information available.
Isopropanol	67-63-0	Did not show carcinogenic effects in animal experiments (rat)

Substances	CAS Number	Reproductive toxicity
Dodecylbenzene sulfonic acid	27176-87-0	No information available
Isopropanol	67-63-0	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.

Substances	CAS Number	STOT - single exposure
Dodecylbenzene sulfonic acid	27176-87-0	No information available
Isopropanol	67-63-0	May cause headache, dizziness, and other central nervous system effects.

Substances	CAS Number	STOT - repeated exposure
Dodecylbenzene sulfonic acid	27176-87-0	No information available
Isopropanol	67-63-0	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	Aspiration hazard
Dodecylbenzene sulfonic acid	27176-87-0	Not applicable
Isopropanol	67-63-0	Not applicable

SECTION 12: Ecological Information

12.1. Toxicity Ecotoxicity Effects

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Dodecylbenzene sulfonic acid	27176-87-0	EC50(72h): 29 mg/L (Pseudokirchneriella subcapitata)	LC50(96h): 10.8 mg/L (Oncorhynchus mykiss); LC50(96h): 3.5 - 10 mg/L (Brachydanio rerio); LC50(96h): 1 mg/L (Gadus morhua)	LC50: 0.9 mg/L (Microcystis)	EC50(48h): 5.88 mg/L (Daphnia magna)
Isopropanol	67-63-0	EC50(72h): > 1000 mg/L (Desmodesmus subspicatus) EC50(7d): 1800 mg/L (mean extinction value) (Scenedesmus quadricauda)	LC50(96h): 9640 mg/L (Pimephales promelas) LC50(7d): 7060 mg/L (Poecilia reticulata)	TT(16h): 1050 mg/L (Pseudomonas putida)	EC50(48h): 13299 mg/L (Daphnia magna) EC50(24h): > 10000 mg/L (Daphnia magna)

12.2. Persistence and degradability

Product is biodegradable

Substances	CAS Number	Persistence and Degradability
Dodecylbenzene sulfonic acid	27176-87-0	No information available
Isopropanol	67-63-0	Readily biodegradable (53% @ 5d)

12.3. Bioaccumulative potential

Does not bioaccumulate

Substances	CAS Number	Log Pow
Dodecylbenzene sulfonic acid	27176-87-0	No information available
Isopropanol	67-63-0	0.05 @ 25°C

12.4. Mobility in soil

No information available

12.5. Results of PBT and vPvB assessment

No information available.

Substances	PBT and vPvB assessment
Isopropanol	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 Method**

Incineration recommended in approved incinerator according to federal, state, and local regulations. Substance should NOT be deposited into a sewage facility.

Contaminated Packaging

Contaminated packaging may be disposed of by: rendering packaging incapable of containing any substance, or treating packaging to remove residual contents, or treating packaging to make sure the residual contents are no longer hazardous, or by disposing of packaging into commercial waste collection.

SECTION 14: Transport Information**IMDG/IMO**

UN Number:	UN2924
UN Proper Shipping Name:	Flammable Liquid, Corrosive, N.O.S. (Contains Isopropanol, Dodecylbenzenesulfonic Acid)
Transport Hazard Class(es):	3
Subsidiary Hazard:	(8)
Packing Group:	III
Environmental Hazards:	Not applicable
EMS:	EmS F-E, S-C

RID

UN Number:	UN2924
UN Proper Shipping Name:	Flammable Liquid, Corrosive, N.O.S. (Contains Isopropanol, Dodecylbenzenesulfonic Acid)
Transport Hazard Class(es):	3
Subsidiary Hazard:	(8)
Packing Group:	III
Environmental hazard:	Not applicable

ADR

UN Number:	UN2924
UN Proper Shipping Name:	Flammable Liquid, Corrosive, N.O.S. (Contains Isopropanol, Dodecylbenzenesulfonic Acid)
Transport Hazard Class(es):	3
Subsidiary Hazard:	(8)
Packing Group:	III
Environmental hazard:	Not applicable

IATA/ICAO

UN Number: UN2924
UN Proper Shipping Name: Flammable Liquid, Corrosive, N.O.S. (Contains Isopropanol, Dodecylbenzenesulfonic Acid)
Transport Hazard Class(es): 3
Subsidiary Hazard: (8)
Packing Group: III
Environmental hazard: Not applicable

14.1. UN Number: UN2924

14.2. UN Proper Shipping Name: Flammable Liquid, Corrosive, N.O.S. (Contains Isopropanol, Dodecylbenzenesulfonic Acid)

14.3. Transport Hazard Class(es): 3 (8)

14.4. Packing Group: III

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 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) WGK 1: Low hazard to waters.

15.2. Chemical Safety Assessment

No information available

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

F - Highly Flammable.
C - Corrosive.
Xn - Harmful.
Xi - Irritant.
R11 Highly flammable.
R22 Harmful if swallowed.
R34 Causes burns.
R36 - Irritating to eyes
R67 Vapours may cause drowsiness and dizziness.

Key literature references and sources for data

www.ChemADVISOR.com/
NZ CCID

Revision Date: 05-Aug-2014

Revision Note

Not applicable

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

Disclaimer Statement

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End of Safety Data Sheet