HALLIBURTON

SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

OXOL II CLEANER

Revision Date: 20-May-2013 Revision Number: 9

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product Name OXOL II CLEANER

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

Recommended Use Concentrate

Uses Advised Against No information available

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

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

Classification of the substance or mixture REGULATION (EC) No 1272/2008

| Acute Oral Toxicity | Category 4- (H302) |
|--|---------------------|
| Serious Eye Damage / Eye Irritation | Category 1- (H318) |
| Reproductive Toxicity | Category 1B- (H360) |
| Specific Target Organ Toxicity - (Single Exposure) | Category 3- (H335) |

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

2. HAZARDS IDENTIFICATION

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

Classification T - Toxic.

Xi - Irritant.

Risk Phrases R61 May cause harm to the unborn child.

R62 Possible risk of impaired fertility. R37 Irritating to respiratory system.

R41 Risk of serious damage to eyes.

Label Elements

Hazard Pictograms





Danger



Signal Word

Hazard Statements

H318 - Causes serious eye damage

H360Df - May damage the unborn child. Suspected of damaging fertility

H302 - Harmful if swallowed

H335 - May cause respiratory irritation

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

P280 - Wear eye protection/face protection

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

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

P310 - Immediately call a POISON CENTER or doctor/physician

P301+ P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P330 - Rinse mouth

Contains

SubstancesCAS NumberSodium perborate tetrahydrate10486-00-7

Other Hazards

None known

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Substances | EINECS | CAS Number | PERCENT | EEC Classification | EU - CLP Substance Classification | REACH No. |
|-------------------------------|----------------|------------|-----------|-------------------------|--|-------------------|
| Sodium perborate tetrahydrate | Not applicable | 10486-00-7 | 60 - 100% | T; R61-62 Xi; R37-41 | Acute Tox. 4 (H302) Eye Dam. 1 (H318) Repr. 1B (H360Df) STOT SE3 (H335) | No data available |

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

4. FIRST AID MEASURES

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. 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

efore 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.

Most Important symptoms and effects, both acute and delayed

May cause severe eye irritation. May cause respiratory irritation. Potential reproductive hazard. May be harmful if swallowed.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

5. FIREFIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

Skin

Special hazards arising from the substance of mixture

Special Exposure Hazards

Decomposition in fire may produce toxic gases. Releases oxygen at high temperatures.

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

Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment. Avoid creating and breathing dust.

See Section 12 for additional information

Environmental precautions

Prevent from entering sewers, waterways, or low areas.

Methods and material for containment and cleaning up

Scoop up and remove.

Reference to other sections

See Section 12 for additional information.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with eyes, skin, or clothing. Avoid creating or inhaling dust.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

Conditions for safe storage, including any incompatibilities

Store away from combustibles. Store in a cool, dry location. Product has a shelf life of 24 months.

Specific End Use(s)

Exposure Scenario No information available

Other Guidelines No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

| Substances | EU | UK OEL | Netherlands | France OEL | Germany MAK/TRK |
|------------------|----------------|----------------|----------------|----------------|-----------------|
| Sodium perborate | Not applicable |
| tetrahydrate | | | | | |

| Substances | Spain | Portugal | Finland | Austria | Ireland |
|------------|----------------|----------------|----------------|----------------|----------------|
| Substances | Not applicable |

| Substances | Switzerland | Norway | Italy | Poland | Hungary |
|------------------|----------------|----------------|----------------|----------------|----------------|
| Sodium perborate | Not applicable |
| tetrahydrate | | | | | |

| Substances | Czech Republic | Denmark |
|------------------|----------------|----------------|
| Sodium perborate | Not applicable | Not applicable |
| tetrahydrate | | · · |

Derived No Effect Level (DNEL)
Predicted No Effect Concentration

No information available. No information available.

(PNEC)

Exposure controls

Engineering Controls Use in a well ventilated area.

Personal protective equipment

Respiratory Protection Dust/mist respirator. (N95, P2/P3)

Hand Protection Impervious rubber gloves.

Skin ProtectionRubber apron.Eye ProtectionDust proof goggles.

Other Precautions Eyewash fountains and safety showers must be easily accessible.

Environmental Exposure Controls No information available

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State: Solid Color: White

Odor: Odorless Odor Threshold: No information available

<u>Property</u> <u>Values</u>

Remarks/ Method

pH: 10

Melting Point/RangeNo data availableFreezing Point/Range (C):No data availableBoiling Point/RangeNo data availableFlash PointNo data availableEvaporation rateNo data availableVapor Pressure6.2 mmHgVapor DensityNo data available

Specific Gravity 1.73

Water Solubility
Soluble in water
Solubility in other solvents
No data available
Partition coefficient: n-octanol/water
Autoignition Temperature
Decomposition Temperature
Viscosity
No data available
No data available
No data available

Explosive Properties
No information available
Oxidizing Properties
No information available

Other information

Molecular Weight 153.86

VOC Content (%) No data available

10. STABILITY AND REACTIVITY

Reactivity

Not applicable

Chemical Stability

Stable

Possibility of Hazardous Reactions

Will Not Occur

Conditions to Avoid

Avoid contact with organic materials.

Incompatible Materials

Contact with water. Organic matter. All flammables, especially petroleum products, asphalt & other volatile flammables. Metal salts such as aluminum chloride.

Hazardous Decomposition Products

Oxygen.

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

Inhalation Causes severe respiratory irritation. May be absorbed through inhalation contributing to

symptoms listed under ingestion.

Eye Contact Causes severe eye irritation which may damage tissue. May cause eye burns.

Skin Contact May cause skin irritation.

Ingestion Causes burns of the mouth, throat and stomach. May cause abdominal pain, vomiting,

nausea, and diarrhea.

Chronic Effects/Carcinogenicity Prolonged or repeated exposure may cause gastrointestinal effects and muscular dysfunction. Prolonged or repeated exposure may cause reproductive system damage. Prolonged or repeated exposure may cause embryo and fetus toxicity.

| Substances | LD50 Oral LD50 Dermal | | LC50 Inhalation | |
|-------------------------------|-----------------------|-------------------|-------------------|--|
| Sodium perborate tetrahydrate | 1200 mg/kg (Rat) | No data available | No data available | |

12. ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity Effects

| Substances | Toxicity to Algae | Toxicity to Fish | Toxicity to Microorganisms | Daphnia Magna (Water Flea) |
|-------------------------------|--------------------------|--|----------------------------|-------------------------------|
| Sodium perborate tetrahydrate | No information available | TLM24: 160-320 mg/l (Oncorhynchus mykiss) | No information available | No information available |

Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

Bioaccumulative potential

No information available

Mobility in soil

No information available

Results of PBT and vPvB assessment

No information available.

Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal Method Contaminated Packaging Bury in a licensed landfill according to federal, state, and local regulations.

This bag may contain residue of a hazardous material. Some authorities may regulate such containers as hazardous waste. Dispose of container according to national or local

regulations.

14. TRANSPORT INFORMATION

IMDG/IMO

UN Number: Not restricted. UN Proper Shipping Name: Not restricted Not restricted Transport Hazard Class(es): Not applicable

RID

UN Number: Not restricted.
UN Proper Shipping Name: Not restricted
Transport Hazard Class(es): Not applicable

ADR

UN Number: Not restricted. UN Proper Shipping Name: Not restricted Not restricted Not applicable

IATA/ICAO

UN Number: Not restricted. UN Proper Shipping Name: Not restricted Not restricted Not applicable

Special Precautions for User

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

Not applicable

15. REGULATORY INFORMATION

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.
All components listed on inventory or are exempt.
All components listed on inventory or are exempt.

None

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 1: Low hazard to waters.

Chemical Safety Assessment

15. REGULATORY INFORMATION

No information available

16. OTHER INFORMATION

Full text of R-phrases referred to under Sections 2 and 3

R61 May cause harm to the unborn child.

R62 Possible risk of impaired fertility.

R37 Irritating to respiratory system.

R41 Risk of serious damage to eyes.

Key literature references and sources for data

www.ChemADVISOR.com/

Revision Date: 20-May-2013
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