

# SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

## MA-19 COMPONENT

Revision Date: 30-Nov-2010

Revision Number: 7

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

**Product Identifier**

**Product Name** MA-19 COMPONENT

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

**Recommended Use** Component  
**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](http://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	<b>112</b>
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 3- H301
Acute Toxicity - Dermal	Category 4- H312
Acute Inhalation Toxicity - Dusts and Mists	Category 2- H330
Skin Corrosion / irritation	Category 1 B- H314
Respiratory Sensitization	Category 1- H334
Skin Sensitization	Category 1- H317

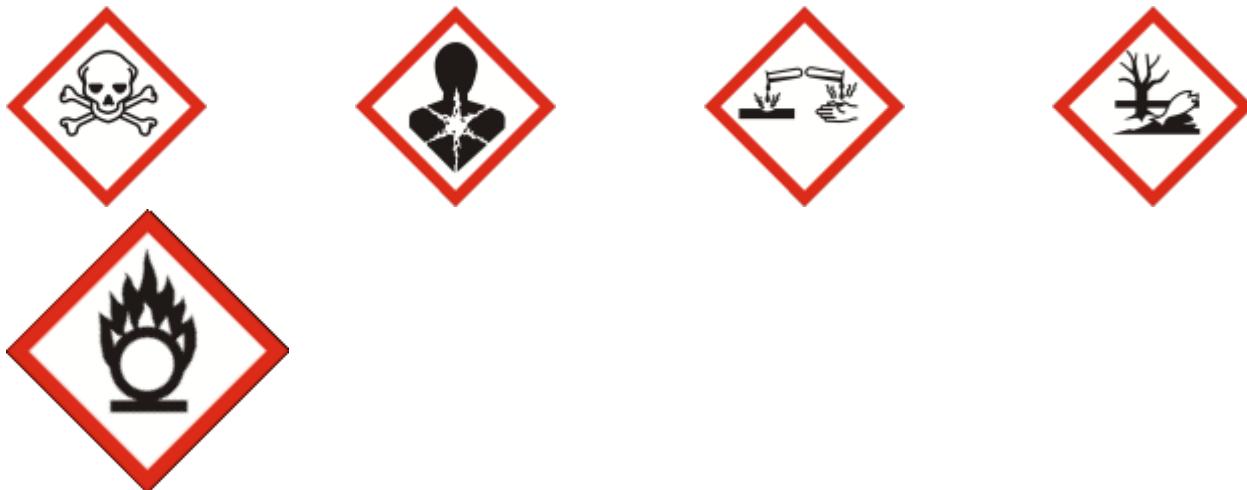
2. HAZARDS IDENTIFICATION	
Germ Cell Mutagenicity	Category 1B- H340
Carcinogenicity	Category 1B- H350
Specific Target Organ Toxicity - (Repeated Exposure)	Category 1- H360FD
Acute Aquatic Toxicity	Acute 1- H400
Chronic Aquatic Toxicity	Chronic 1- H410
Oxidizing solids.	Category 2- H272

**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**

O - Oxidizing.  
 T+ - Very toxic.  
 N - Dangerous For The Environment.

**Risk Phrases**

R49 May cause cancer by inhalation.  
 R46 May cause heritable genetic damage.  
 R8 Contact with combustible material may cause fire.  
 R21 Harmful in contact with skin.  
 R25 Toxic if swallowed.  
 R26 Very toxic by inhalation.  
 R41 Risk of serious damage to eyes.  
 R43 May cause sensitization by skin contact.  
 R37/38 Irritating to respiratory system and skin.  
 R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Label Elements**
**Hazard Pictograms**

**Signal Word**
**Danger**
**Hazard Statements**

H340 - May cause genetic defects if inhaled  
 H350 - May cause cancer by inhalation  
 H301 - Toxic if swallowed  
 H312 - Harmful in contact with skin  
 H330 - Fatal if inhaled  
 H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled  
 H317 - May cause an allergic skin reaction  
 H360FD - May damage fertility. May damage the unborn child  
 H410 - Very toxic to aquatic life with long lasting effects  
 H272 - May intensify fire; oxidizer

## 2. HAZARDS IDENTIFICATION

**Contains**

**Substances**  
Sodium dichromate

**CAS Number**  
Proprietary

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

P201 - Obtain special instructions before use  
 P202 - Do not handle until all safety precautions have been read and understood  
 P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
 P220 - Keep/Store away from clothing/ combustible materials  
 P221 - Take any precaution to avoid mixing with combustibles  
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
 P264 - Wash face, hands and any exposed skin thoroughly after handling  
 P270 - Do not eat, drink or smoke when using this product  
 P272 - Contaminated work clothing should not be allowed out of the workplace  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection  
 P284 - Wear respiratory protection  
 P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
 P330 - Rinse mouth  
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
 P312 - Call a POISON CENTER or doctor/physician if you feel unwell  
 P363 - Wash contaminated clothing before reuse  
 P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing  
 P310 - Immediately call a POISON CENTER or doctor/physician  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P308 + P313 - IF exposed or concerned: Get medical advice/attention  
 P391 - Collect spillage  
 P273 - Avoid release to the environment  
 P370 + P 378 - In case of fire: Use CO<sub>2</sub>, dry chemical, or foam

**Other Hazards**

None known

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	EINECS	CAS Number	PERCENT	EEC Classification	EU - CLP Substance Classification	REACH No.
Sodium dichromate	Listed	Proprietary	60 - 100%	O;R8 Carc.Cat.2;R45 Muta.Cat.2;R46 Repr.Cat.2;R60-61 T+; R26 T; R25-48/23 Xn; R21 C; R34 R42/43 N; R50-53	Acute Tox. 3 (H301) Acute Tox. 4 (H312) Acute Tox. 2 (H330) Skin Corr. 1B (H314) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) Muta. 1B (H340) Carc. 1B (H350) Repr. 1B (H360FD) STOT RE 1 (H372) Aquatic acute 1 (H400) Aquatic Chronic 1 (H410) Ox. Sol. 2 (H272)	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.

## 4. FIRST AID MEASURES

<b>Skin</b>	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.
<b>Ingestion</b>	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 eye, skin, and respiratory irritation. May cause allergic skin and respiratory reaction.

### **Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Treat symptomatically

## 5. FIREFIGHTING MEASURES

### **Extinguishing media**

#### **Suitable Extinguishing Media**

All standard fire fighting media

#### **Extinguishing media which must not be used for safety reasons**

None known.

### **Special hazards arising from the substance or mixture**

#### **Special Exposure Hazards**

Oxidizer. May ignite combustibles.

#### **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.

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. Wash hands after use. Launder contaminated clothing before reuse.

### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice

### **Conditions for safe storage, including any incompatibilities**

Keep container closed when not in use.

### **Specific End Use(s)**

#### **Exposure Scenario**

#### **Other Guidelines**

No information available

No information available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### **Control parameters**

Substances	EU	UK OEL	Netherlands	France OEL	Germany MAK/TRK
Sodium dichromate	Not applicable	0.05 mg/m <sup>3</sup>	0,025 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>	0,1 mg/m <sup>3</sup>

Substances	Italy	Poland	Hungary	Czech Republic	Denmark
Sodium dichromate	Not applicable	0.1 mg/m <sup>3</sup>	Not applicable	0.05 mg/m <sup>3</sup>	0.005 mg/m <sup>3</sup>

**Derived No Effect Level (DNEL)** No information available.  
**Predicted No Effect Concentration (PNEC)** No information available.

**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**

<b>Respiratory Protection</b>	Dust/mist respirator. (N95, P2/P3)
<b>Hand Protection</b>	Impervious rubber gloves.
<b>Skin Protection</b>	Rubber apron.
<b>Eye Protection</b>	Dust proof goggles.
<b>Other Precautions</b>	Eyewash fountains and safety showers must be easily accessible.
<b>Environmental Exposure Controls</b>	No information available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

**Physical State:** Solid **Color:** Red  
**Odor:** Odorless **Odor Threshold:** No information available

Property	Values
Remarks/ Method	
pH:	3.5
Melting Point/Range	No data available
Freezing Point/Range (C):	No data available
Boiling Point/Range	No data available
Flash Point	No data available
Evaporation rate	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity	3.5
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

### Other information

**Molecular Weight** 298  
**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

None anticipated

### Incompatible Materials

Organic matter. All flammables, especially petroleum products, asphalt & other volatile flammables.

### Hazardous Decomposition Products

None known.

## 11. TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

#### Acute Toxicity

Inhalation	Causes severe respiratory irritation.
Eye Contact	May cause severe eye irritation.
Skin Contact	Causes severe skin irritation with tissue destruction. Prolonged or repeated contact may cause ulceration of the skin.
Ingestion	Irritation of the mouth, throat, and stomach. May cause abdominal pain, vomiting, nausea, and diarrhea.

**Chronic Effects/Carcinogenicity** Contains hexavalent chromium, a suspected lung carcinogen.

Substances	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium dichromate	50 mg/kg	No data available	No data available

**Test species:** Rat

## 12. ECOLOGICAL INFORMATION

### Toxicity

#### Ecotoxicity Effects

Substances	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Sodium dichromate	No information available	No information available	No information available	No information available

### Persistence and degradability

No information available

### 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

Disposal should be made in accordance with 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

## 14. TRANSPORT INFORMATION

**IMDG/IMO**

**UN Number:** UN3077,  
**UN Proper Shipping Name:** Environmentally Hazardous Substance, Solid, N.O.S.  
**Transport Hazard Class(es):** , 9  
**Packing Group:** , III  
**Environmental Hazards:** , Marine Pollutant  
**EMS:** EmS F-A, S-F

**RID**

**UN Number:** UN3077,  
**UN Proper Shipping Name:** Environmentally Hazardous Substance, Solid, N.O.S.  
**Transport Hazard Class(es):** , 9  
**Packing Group:** , III

**ADR**

**UN Number:** UN3077,  
**UN Proper Shipping Name:** Environmentally Hazardous Substance, Solid, N.O.S.  
**Transport Hazard Class(es):** , 9  
**Packing Group:** , III

**IATA/ICAO**

**UN Number:** UN3077,  
**UN Proper Shipping Name:** Environmentally Hazardous Substance, Solid, N.O.S.  
**Transport Hazard Class(es):** , 9  
**Packing Group:** , III

**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

**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/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**Germany, Water Endangering Classes (WGK)** WGK 3: Severe hazard to waters.

**Chemical Safety Assessment**

No information available

## 16. OTHER INFORMATION

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

**16. OTHER INFORMATION**

R49 May cause cancer by inhalation.  
R46 May cause heritable genetic damage.  
R8 Contact with combustible material may cause fire.  
R21 Harmful in contact with skin.  
R25 Toxic if swallowed.  
R26 Very toxic by inhalation.  
R41 Risk of serious damage to eyes.  
R43 May cause sensitization by skin contact.

R37/38 Irritating to respiratory system and skin.  
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Key literature references and sources for data**

[www.ChemADVISOR.com/](http://www.ChemADVISOR.com/)

**Revision Date:** 30-Nov-2010  
**Revision Note** Not applicable

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

**Disclaimer Statement**

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**End of Safety Data Sheet**