

# **SAFETY DATA SHEET**

according to Regulation (EC) No. 453/2010

## **MA-40 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-40 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](mailto:fdunexchem@halliburton.com)**Emergency telephone number**

+44 1224 795277 or +1 281 575 5000

**Emergency telephone \$45 - (EC)1272/2008**

<b>Europe</b>	<b>112</b>
<b>Denmark</b>	Poison Control Hotline (DK): +45 82 12 12 12
<b>France</b>	ORFILA (FR): + 01 45 42 59 59
<b>Germany</b>	Poison Center Berlin (DE): +49 030 30686 790
<b>Italy</b>	Poison Center, Milan (IT): +39 02 6610 1029
<b>Netherlands</b>	National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
<b>Norway</b>	Poisons Information (NO): + 47 22 591300
<b>Poland</b>	Poison Control and Information Centre, Warsaw (PL): +48 22 619 66 54; +48 22 619 08 97
<b>Spain</b>	Poison Information Service (ES): +34 91 562 04 20
<b>United Kingdom</b>	NHS Direct (UK): +44 0845 46 47

### **2. HAZARDS IDENTIFICATION**

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

Respiratory Sensitization	Category 1- H334
Skin Sensitization	Category 1- H317
Flammable solids.	Category 2- H228

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**

F - Highly Flammable.  
Xn - Harmful.

**Risk Phrases**

R11 Highly flammable.  
R42/43 May cause sensitization by inhalation and skin contact.

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

**2. HAZARDS IDENTIFICATION****Signal Word****Danger****Hazard Statements**

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H317 - May cause an allergic skin reaction  
H228 - Flammable solid

**Contains****Substances**

Hexamethylenetetramine

**CAS Number**

100-97-0

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

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P240 - Ground/Bond container and receiving equipment

P241 - Use explosion-proof electrical/ventilating/lighting/equipment

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P272 - Contaminated work clothing should not be allowed out of the workplace

P280 - Wear protective gloves/eye protection/face protection

P285 - In case of inadequate ventilation wear respiratory protection

P304 + P341 - IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing

P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention

P363 - Wash contaminated clothing before reuse

P370 + P 378 - In case of fire: Use CO2, 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.
Hexamethylenetetramine	202-905-8	100-97-0	60 - 100%	F; R11 Xn; R42/43	Flam. Solid 2 (H228) Resp. Sens. 1 (H334) Skin Sens. 1 (H317)	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, 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 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.

**Most Important symptoms and effects, both acute and delayed**

May cause eye, skin, and respiratory irritation. May cause allergic skin and respiratory reaction. 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.

**Special hazards arising from the substance of mixture****Special Exposure Hazards**

Decomposition in fire may produce toxic gases. Organic dust in the presence of an ignition source can be explosive in high concentrations. Good housekeeping practices are required to minimize this potential.

**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. Wash hands after use.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice

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

Store in a dry location. Store in a cool well ventilated area. Keep from heat, sparks, and open flames. Keep container closed when not in use. Product has a shelf life of 6 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
Hexamethylenetetramine	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Substances	Italy	Poland	Hungary	Czech Republic	Denmark
Hexamethylenetetramine	Not applicable	4 mg/m <sup>3</sup>	Not applicable	Not applicable	Not applicable

**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****Respiratory Protection**

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

**Hand Protection**

Nitrile gloves.

**Skin Protection**

Normal work coveralls.

**Eye Protection**

Wear safety glasses or goggles to protect against exposure.

**Other Precautions**

None known.

**Environmental Exposure Controls**

No information available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Solid      **Color:** White  
**Odor:** Mild amine      **Odor Threshold:** No information available

Property Remarks/ Method	Values
<b>pH:</b>	8
<b>Melting Point/Range</b>	No data available
<b>Freezing Point/Range (C):</b>	No data available
<b>Boiling Point/Range</b>	No data available
<b>Flash Point</b>	250°C
<b>Evaporation rate</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Vapor Density</b>	No data available
<b>Specific Gravity</b>	1.33
<b>Water Solubility</b>	Soluble in water
<b>Solubility in other solvents</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Explosive Properties</b>	No information available
<b>Oxidizing Properties</b>	No information available

### Other information

**Molecular Weight** 140.16  
**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

Keep away from heat, sparks and flame.

### Incompatible Materials

Strong oxidizers. Strong acids. Anhydrides. Isocyanates. Acrylates. Ketones. Aldehydes. Alcohols. Amphoteric metals such as aluminum, magnesium, lead, tin, or zinc.

### Hazardous Decomposition Products

Aldehydes. Phenol. Hydrogen cyanide. Ammonia. Hydrocarbons. Carbon monoxide and carbon dioxide. Toxic fumes.

## 11. TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

#### Acute Toxicity

<b>Inhalation</b>	May cause allergic respiratory reaction. May cause respiratory irritation.
<b>Eye Contact</b>	May cause eye irritation.
<b>Skin Contact</b>	May cause an allergic skin reaction. May be absorbed through the skin and contribute to the symptoms listed under ingestion. May cause skin irritation.
<b>Ingestion</b>	Irritation of the mouth, throat, and stomach. May cause abdominal pain, vomiting, nausea, and diarrhea.

**Chronic Effects/Carcinogenicity** No data available to indicate product or components present at greater than 1% are chronic health hazards.

Substances	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hexamethylenetetramine	9200 mg/kg	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)
Hexamethylenetetramine	No information available	TLM96: 49800 mg/l (Pimephales promelas)	No information available	TLM48: 3600 mg/l (Daphnia magna)

**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.  
Follow all applicable national or local regulations.

**14. TRANSPORT INFORMATION****IMDG/IMO**

UN Number: UN1328,  
UN Proper Shipping Name: Hexamethylenetetramine  
Transport Hazard Class(es): , 4.1  
Packing Group: , III  
EMS: EmS F-A, S-G

**RID**

UN Number: UN1328,  
UN Proper Shipping Name: Hexamethylenetetramine  
Transport Hazard Class(es): , 4.1  
Packing Group: , III

**ADR**

UN Number: UN1328,  
UN Proper Shipping Name: Hexamethylenetetramine  
Transport Hazard Class(es): , 4.1  
Packing Group: , III

**14. TRANSPORT INFORMATION****IATA/ICAO**

**UN Number:** UN1328,  
**UN Proper Shipping Name:** Hexamethylenetetramine  
**Transport Hazard Class(es):** , 4.1  
**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 1: Low hazard to waters.

**Chemical Safety Assessment**

No information available

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

R11 Highly flammable.

R42/43 May cause sensitization by inhalation and skin contact.

**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**