

# **SAFETY DATA SHEET**

according to Regulation (EC) No. 453/2010

## **EXTENSOL®**

Revision Date: 29-Nov-2010

Revision Number: 9

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

**Product Identifier****Product Name** EXTENSOL®**Relevant identified uses of the substance or mixture and uses advised against****Recommended Use** Salt Crystallization Inhibitor**Uses Advised Against** No information available**Details of the supplier of the safety data sheet**

Halliburton Manufacturing Services, Ltd.  
Halliburton House, Howemoss Crescent  
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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**

Not classified

**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

**2. HAZARDS IDENTIFICATION****Classification** Xn - Harmful.**Risk Phrases** R32 Contact with acids liberates very toxic gas.  
R20/21/22 Harmful by inhalation, by contact with skin and if swallowed.**Label Elements**

Not classified

**Hazard Pictograms****Signal Word** None

EUH032 - Contact with acids liberates very toxic gas

**Contains****Substances**

Sodium hexacyanoferrate

**CAS Number**

13601-19-9

**Other Hazards**

None known

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substances	EINECS	CAS Number	PERCENT	EEC Classification	EU - CLP Substance Classification	REACH No.
Sodium hexacyanoferrate	237-081-9	13601-19-9	60 - 100%	Xn; R32-20/21/22	(EUH032)	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.

**Skin**

In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention.

**Ingestion**

If swallowed, induce vomiting immediately by giving two glasses of water and sticking fingers down throat; never give anything to an unconscious person. Get medical attention.

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

May cause eye and skin irritation.

**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

Decomposition in fire may produce toxic gases.

### 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. Launder contaminated clothing before reuse.

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

### Conditions for safe storage, including any incompatibilities

Store away from acids. Store in a cool, dry location. Keep container closed when not in use. Store away from direct sunlight.

### 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 hexacyanoferrate	Not applicable	5 mg/m <sup>3</sup>	Not applicable	5 mg/m <sup>3</sup>	Not applicable

Substances	Italy	Poland	Hungary	Czech Republic	Denmark
Sodium hexacyanoferrate	Not applicable	Not applicable	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. Localized ventilation should be used to control dust levels.

#### Personal protective equipment

<b>Respiratory Protection</b>	Not normally needed. But if significant exposures are possible then the following respirator is recommended: Dust/mist respirator. (N95, P2/P3)
<b>Hand Protection</b>	Impervious rubber gloves.
<b>Skin Protection</b>	Rubber apron.
<b>Eye Protection</b>	Wear safety glasses or goggles to protect against exposure.
<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  
**Odor:** Odorless

**Color:** Yellow  
**Odor Threshold:** No information available

<u>Property</u>	<u>Values</u>
<u>Remarks/ Method</u>	
<b>pH:</b>	9.5
<b>Melting Point/Range</b>	No data available
<b>Freezing Point/Range (C):</b>	96°C
<b>Boiling Point/Range</b>	No data available
<b>Flash Point</b>	No data available
<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>	1.458
<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** 484.09  
**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 acids.

### Incompatible Materials

Contact with acids.

### Hazardous Decomposition Products

Hydrogen cyanide. Oxides of nitrogen. Ammonia. Carbon monoxide and carbon dioxide.

## 11. TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

#### Acute Toxicity

<b>Inhalation</b>	May cause respiratory irritation. May reduce the blood's ability to transport oxygen.
<b>Eye Contact</b>	May cause eye irritation.
<b>Skin Contact</b>	May cause skin irritation.
<b>Ingestion</b>	Irritation of the mouth, throat, and stomach. May cause abdominal pain, vomiting, nausea, and diarrhea.

**11. TOXICOLOGICAL INFORMATION**

**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
Sodium hexacyanoferrate	> 5000 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)
Sodium hexacyanoferrate	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**

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  
Transport Hazard Class(es): Not applicable

**RID**

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

**ADR**

**14. TRANSPORT INFORMATION**

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

**IATA/ICAO**

UN Number: Not restricted.  
UN Proper Shipping Name: Not restricted  
Transport Hazard Class(es): 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****Safety, health and environmental regulations/legislation specific for the substance or mixture****International Inventories**

EINECS Inventory This product does not comply with EINECS  
US TSCA Inventory Product contains one or more components not listed on the inventory.  
Canadian DSL Inventory Product contains one or more components not listed on the inventory.

**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 2: Hazard to waters.

**Chemical Safety Assessment**

No information available

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

R32 Contact with acids liberates very toxic gas.

R20/21/22 Harmful by inhalation, by contact with skin and if swallowed.

**Key literature references and sources for data**

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

Revision Date: 29-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**