

SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

Formate Stabilizer

Revision Date: 29-Nov-2010

Revision Number: 3

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

Product Identifier

Product Name Formate Stabilizer

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

Recommended Use Shale stabilizer
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

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

Classification Not Classified

2. HAZARDS IDENTIFICATION

Risk Phrases None

Label Elements

Not classified

Hazard Pictograms

Signal Word Not Hazardous

Contains

Substances

Proprietary Component

CAS Number

Proprietary

Other Hazards

None known

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	EINECS	CAS Number	PERCENT	EEC Classification	EU - CLP Substance Classification	REACH No.
Proprietary Component	Listed	Proprietary	60 - 100%	Not applicable	Not applicable	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 from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

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.

Ingestion

Under normal conditions, first aid procedures are not required.

Most important symptoms and effects, both acute and delayed

No significant hazards expected.

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.

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

Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. 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.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

Conditions for safe storage, including any incompatibilities

Store away from oxidizers. Store in a cool, dry location.

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
Proprietary Component	Not applicable	Not applicable	1000 mg/m ³	Not applicable	1000 mg/m ³

Substances	Italy	Poland	Hungary	Czech Republic	Denmark
Proprietary Component	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.

Personal protective equipment

Respiratory Protection Not normally necessary.

Hand Protection Impervious rubber 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

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Physical State: Liquid **Color:** Clear
Odor: Mild sweet **Odor Threshold:** No information available

<u>Property</u>	<u>Values</u>
<u>Remarks/ Method</u>	
pH:	No data available
Melting Point/Range	No data available
Freezing Point/Range (C):	No data available
Boiling Point/Range	> 200°C
Flash Point	227°C
PMCC	
Evaporation rate	0.3
Vapor Pressure	< 0.01 mmHg
Vapor Density	> 10
Specific Gravity	1.1
Water Solubility	Soluble in water
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	-0.38/1.46
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

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

Strong oxidizers. Strong alkalis. Strong acids. Peroxides.

Hazardous Decomposition Products

Carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects**Acute Toxicity**

Inhalation	Not determined
Eye Contact	May cause slight eye irritation.
Skin Contact	Prolonged or repeated contact may cause slight skin irritation.
Ingestion	In large amounts: May cause stomach discomfort.

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
Proprietary Component	> 30,000 mgm/kg	20000 mg/kg	>13 ppm/8 h

12. ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity Effects

Substances	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Proprietary Component	EC50: 7895 mg/l (Skeletonema costatum)	EC50: 12821 mg/l (Corophium volutator)	No information available	TLM48: > 10000 mg/l (Acartia tonsa)

Persistence and degradability

No information available

Bioaccumulative potential

Does not bioaccumulate

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: 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

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, 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**

None

Key literature references and sources for data

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