HALLIBURTON

SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

LOW SOLIDS XP-07-CF CaCl2

Revision Date: 09-Dec-2015 **Revision Number:** 1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product Name LOW SOLIDS XP-07-CF CaCl2
Internal ID Code HM008221

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

Recommended Use Drilling Fluid

1.3. Details of the supplier of the safety data sheet

Halliburton Manufacturing Services, Ltd.
Halliburton House, Howemoss Crescent
Kirkhill Industrial Estate
Dyce
Aberdeen, AB21 0GN
United Kingdom

www.halliburton.com

For further information, please contact
E-Mail address: fdunexchem@halliburton.com

1.4. Emergency telephone number

+44 8 08 189 0979 / 1-760-476-3961

Emergency telephone - §45 - (EC)1272/2008	
Europe	**112**
Croatia	Centar za kontrolu otrovanja (CKO): (+385 1) 23-48-342 (Poison Control Center (PCC) - Institute for Medical Research and Occupational Health)
Cyprus	+210 7793777
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
Romania	+40 21 318 36 06
Spain	Poison Information Service (ES): +34 91 562 04 20
United Kingdom	NHS Direct (UK): +44 0845 46 47

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Aspiration Category	Category 1 - H304
Serious Eye Damage / Eye Irritation	Category 2 - H319
Specific Target Organ Toxicity - (Repeated Exposure)	Category 2 - H373

2.2. Label Elements

Hazard Pictograms

Signal Word **Danger**

Hazard Statements
H304 - May be fatal if swallowed and enters airways
H319 - Causes serious eye irritation
H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary Statements - EU (§28, 1272/2008)
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P264 - Wash face, hands and any exposed skin thoroughly after handling
P280 - Wear eye protection/face protection
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P331 - Do NOT induce vomiting
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention
P314 - Get medical attention/advice if you feel unwell
P405 - Store locked up
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

Contains

Substances	**CAS Number**
Cesium formate	3495-36-1
Paraffin, petroleum, normal C5-C20	64771-72-8
Calcium chloride	10043-52-4
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0

2.3. Other Hazards
None known

SECTION 3: Composition/information on Ingredients

Substances	EINECS	CAS Number	PERCENT (w/w)	EU - CLP Substance Classification	REACH No.
Cesium formate	222-492-8	3495-36-1	30 - 60%	Acute Tox. 4 (H302) Eye Irrit. 2 (H319) STOT RE 2 (H373)	No data available
Paraffin, petroleum, normal C5-C20	265-233-4	64771-72-8	10 - 30%	Asp. Tox. 1 (H304) (EUH066)	No data available
Calcium chloride	233-140-8	10043-52-4	5 - 10%	Eye Irrit. 2A (H319)	01-2119494219-28
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	611-563-2	57635-48-0	1 - 5%	Skin Irrit. 2 (H315) Eye Corr. 1 (H318)	No data available

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

SECTION 4: First aid measures

4.1. 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, or suspected contact, immediately flush eyes with plenty of

	water for at least 15 minutes and get medical attention immediately after flushing.
Skin	Wash with soap and water. Get medical attention if irritation persists.
Ingestion	Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical attention.

4.2. Most Important symptoms and effects, both acute and delayed

Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal. Causes eye irritation Prolonged or repeated exposure may cause damage to organs.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

SECTION 5: Firefighting Measures

5.1. Extinguishing media

Suitable Extinguishing Media

All standard fire fighting media

Extinguishing media which must not be used for safety reasons

None known.

5.2. Special hazards arising from the substance or mixture

Special Exposure Hazards

Decomposition in fire may produce harmful gases.

5.3. Advice for firefighters

Special Protective Equipment for Fire-Fighters

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment.
See Section 8 for additional information

6.2. Environmental precautions

Prevent from entering sewers, waterways, or low areas.

6.3. 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.

6.4. Reference to other sections

See Section 8 and 13 for additional information.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling

Avoid contact with eyes, skin, or clothing. Avoid breathing mist.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool well ventilated area. Keep container closed when not in use.

7.3. Specific End Use(s)

Exposure Scenario No information available
Other Guidelines No information available

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Exposure Limits

Substances	CAS Number	EU	UK	Netherlands	France
Cesium formate	3495-36-1	Not applicable	Not applicable	Not applicable	Not applicable

Paraffin, petroleum, normal C5-C20	64771-72-8	Not applicable	Not applicable	Not applicable	Not applicable
Calcium chloride	10043-52-4	Not applicable	10 mg/m³	Not applicable	Not applicable
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Germany	Spain	Portugal	Finland
Cesium formate	3495-36-1	Not applicable	Not applicable	Not applicable	Not applicable
Paraffin, petroleum, normal C5-C20	64771-72-8	Not applicable	Not applicable	Not applicable	Not applicable
Calcium chloride	10043-52-4	Not applicable	Not applicable	Not applicable	Not applicable
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Austria	Ireland	Switzerland	Norway
Cesium formate	3495-36-1	Not applicable	Not applicable	Not applicable	Not applicable
Paraffin, petroleum, normal C5-C20	64771-72-8	Not applicable	Not applicable	Not applicable	Not applicable
Calcium chloride	10043-52-4	Not applicable	Not applicable	Not applicable	Not applicable
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Italy	Poland	Hungary	Czech Republic
Cesium formate	3495-36-1	Not applicable	Not applicable	Not applicable	Not applicable
Paraffin, petroleum, normal C5-C20	64771-72-8	Not applicable	Not applicable	Not applicable	Not applicable
Calcium chloride	10043-52-4	Not applicable	Not applicable	Not applicable	TWA: 5 mg/m³
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Denmark	Romania	Croatia	Cyprus
Cesium formate	3495-36-1	Not applicable	Not applicable	Not applicable	Not applicable
Paraffin, petroleum, normal C5-C20	64771-72-8	Not applicable	Not applicable	Not applicable	Not applicable
Calcium chloride	10043-52-4	Not applicable	Not applicable	Not applicable	Not applicable
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0	Not applicable	Not applicable	Not applicable	Not applicable

Derived No Effect Level (DNEL) No information available.

Worker

Substances	Long-term exposure - systemic effects, Inhalation	Acute / short term exposure - systemic effects, Inhalation	Long-term exposure - local effects, Inhalation	Acute / short term exposure - local effects, Inhalation	Long-term exposure - systemic effects, Dermal	Acute / short term exposure - systemic effects, Dermal	Long-term exposure - local effects, Dermal	Acute / short term exposure - local effects, Dermal	Hazards for the eyes - local effects
Calcium chloride	Not available	Not available	5 mg/m³	10 mg/m³	Not available	Not available	Not available	Not available	Not available

General Population

Substances	Long-term exposure - systemic effects, Inhalation	Acute / short term exposure - systemic effects, Inhalation	Long-term exposure - local effects, Inhalation	Acute / short term exposure - local effects, Inhalation	Long-term exposure - systemic effects, Dermal	Acute / short term exposure - systemic effects, Dermal	Long-term exposure - local effects, Dermal	Acute / short term exposure - local effects, Dermal	Long-term exposure - systemic effects, Oral	Acute / short term exposure - local effects, Oral	Hazards for the eyes - local effects
Calcium chloride	Not available	Not available	2.5 mg/m³	5 mg/m³	Not available	Not available	Not available	Not available	Not available	Not available	Not available

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Controls Use in a well ventilated area.

Personal protective equipment

If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

Respiratory Protection	If engineering controls and work practices cannot keep exposure below occupational exposure limits or if exposure is unknown, wear a NIOSH certified, European Standard EN 149, AS/NZS 1715:2009, or equivalent respirator when using this product. Selection of and instruction on using all personal protective equipment, including respirators, should be performed by an Industrial Hygienist or other qualified professional. Not normally needed. But if significant exposures are possible then the following respirator is recommended: Dust/mist respirator. (N95, P2/P3)
Hand Protection	Impervious rubber gloves. Neoprene gloves. Nitrile gloves. Polyvinylchloride gloves.
Skin Protection	Rubber apron.
Eye Protection	Chemical goggles; also wear a face shield if splashing hazard exists.
Other Precautions	Eyewash fountains and safety showers must be easily accessible.

Environmental Exposure Controls No information available

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State: Liquid **Color:** Off white to Brown
Odor: Hydrocarbon **Odor Threshold:** No information available

Property Remarks/ - Method	Values
pH:	No data available
Freezing Point/Range	No data available
Melting Point/Range	No data available
Boiling Point/Range	No data available
Flash Point	No data available
Flammability (solid, gas)	No data available
upper flammability limit	No data available
lower flammability limit	No data available
Evaporation rate	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity	1.1-1.6
Water Solubility	Insoluble 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

9.2. Other information

VOC Content (%) No data available

SECTION 10: Stability and Reactivity

10.1. Reactivity
Not expected to be reactive.
10.2. Chemical Stability
Stable
10.3. Possibility of Hazardous Reactions
Will Not Occur
10.4. Conditions to Avoid
None anticipated
10.5. Incompatible Materials
Strong oxidizers.
10.6. Hazardous Decomposition Products
Carbon monoxide and carbon dioxide. Oxides of nitrogen. Chlorides. Aldehydes. Formic acid.

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects
Acute Toxicity

Inhalation	May cause respiratory irritation.
Eye Contact	Causes serious eye irritation.
Skin Contact	May cause mild skin irritation. May cause an allergic skin reaction.
Ingestion	May be harmful if swallowed. Aspiration can be a hazard if this material is swallowed.

Chronic Effects/Carcinogenicity No data available to indicate product or components present at greater than 0.1% are chronic health hazards.

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Cesium formate	3495-36-1	1780 mg/kg (Rat) 2000 mg/kg (Rat)	2000 mg/kg (Rat)	No data available
Paraffin, petroleum, normal C5-C20	64771-72-8	> 5000 mg/kg (Rat)	> 2000 mg.kg (Rabbit) (similar substance)	>1369 ppm (Rat, 8h, saturated) (similar substance)
Calcium chloride	10043-52-4	> 1000 mg/kg (Rat) 2301 mg/kg (Rat) > 2000 mg/kg (Rat) 2240 mg/kg (Rat)	5000 mg/kg (Rabbit)	No data available
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0	> 2000 mg/kg (Rat)	> 10000 mg/kg (Rabbit) (similar substance)	No data available

Substances	CAS Number	Skin corrosion/irritation
Cesium formate	3495-36-1	Non-irritating to the skin (Rabbit)
Paraffin, petroleum, normal C5-C20	64771-72-8	Not irritating to skin in rabbits.
Calcium chloride	10043-52-4	Causes mild skin irritation (Rabbit)
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0	Causes skin irritation.

Substances	CAS Number	Eye damage/irritation
Cesium formate	3495-36-1	Irritating to eyes. (Rabbit)
Paraffin, petroleum, normal C5-C20	64771-72-8	Non-irritating to rabbit's eye (similar substances)
Calcium chloride	10043-52-4	Causes severe eye irritation. (Rabbit)
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0	Corrosive to eyes

Substances	CAS Number	Skin Sensitization
Cesium formate	3495-36-1	Did not cause sensitization on laboratory animals (mouse)
Paraffin, petroleum, normal C5-C20	64771-72-8	Did not cause sensitization on laboratory animals (guinea pig) Patch test on human volunteers did not demonstrate irritating properties
Calcium chloride	10043-52-4	No information available
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0	Did not cause sensitization on laboratory animals (similar substances)

Substances	CAS Number	Respiratory Sensitization
Cesium formate	3495-36-1	No information available
Paraffin, petroleum, normal C5-C20	64771-72-8	No information available
Calcium chloride	10043-52-4	No information available
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0	No information available

Substances	CAS Number	Mutagenic Effects
Cesium formate	3495-36-1	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects.
Paraffin, petroleum, normal C5-C20	64771-72-8	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects.
Calcium chloride	10043-52-4	Did not show mutagenic effects in animal experiments
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9	57635-48-0	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects. (similar substances)

-octadecenyloxy]-		

Substances	CAS Number	Carcinogenic Effects
Cesium formate	3495-36-1	No information available.
Paraffin, petroleum, normal C5-C20	64771-72-8	Not regarded as carcinogenic. (similar substances)
Calcium chloride	10043-52-4	No information available.
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0	No information available.

Substances	CAS Number	Reproductive toxicity
Cesium formate	3495-36-1	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)
Paraffin, petroleum, normal C5-C20	64771-72-8	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)
Calcium chloride	10043-52-4	Animal testing did not show any effects on fertility.
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0	No data of sufficient quality are available.

Substances	CAS Number	STOT - single exposure
Cesium formate	3495-36-1	No data of sufficient quality are available.
Paraffin, petroleum, normal C5-C20	64771-72-8	No significant toxicity observed in animal studies at concentration requiring classification.
Calcium chloride	10043-52-4	No significant toxicity observed in animal studies at concentration requiring classification.
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0	No information available

Substances	CAS Number	STOT - repeated exposure
Cesium formate	3495-36-1	Causes damage to organs through prolonged or repeated exposure: Heart (Blood) Central Nervous System (CNS)
Paraffin, petroleum, normal C5-C20	64771-72-8	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Calcium chloride	10043-52-4	No information available.
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)

Substances	CAS Number	Aspiration hazard
Cesium formate	3495-36-1	Not applicable
Paraffin, petroleum, normal C5-C20	64771-72-8	Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.
Calcium chloride	10043-52-4	Not applicable
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0	Not applicable

SECTION 12: Ecological Information

12.1. Toxicity

Ecotoxicity Effects

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Cesium formate	3495-36-1	EC50 (72h) 33 mg/L (Selenastrum capricornutum)	LC50 (96h) > 100 mg/L (Danio rerio)	No information available	EC50 (48hr) 35 mg/L (Daphnia magna)
Paraffin, petroleum, normal C5-C20	64771-72-8	EC50 (72h) 6935.35 mg/L (Skeletonema costatum)	LC50 (96h) > 5000 mg/L (Pimephales promelas) LC50 (96h) > 1000 mg/L (Scophthalmus maximus)	No information available	EL50 (48h) > 1000 mg/L (Daphnia Magna) LC50 (48h) > 1000 mg/L (Acartia tonsa)

Calcium chloride	10043-52-4	ErC50 (72h) 2900 mg/L (Pseudokirchnerella subcapitata) ErC50 (72h) 4000 mg/L (Pseudokirchnerella subcapitata)	LC50 (96h) 4630 mg/L (Pimephales promelas) LC50 (48h) >6560 mg/L (Pimephales promelas) LC50 (24h) >6660 mg/L (Pimephales promelas)	No information available	EC50 (48h) 2400 mg/L (Daphnia magna) EC50 (21d) 610 mg/L (reproduction) (Daphnia magna)
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0	EC50 (72h): 25.21 mg/L (Skeletonema costatum)	EC50 (96h): 29.25 mg/L (Scopthalmus maximus) NOEC(10d): 416.78 mg/kg (Corophium volutator)	No information available	EC50 (48h): 597.37 mg/L (Acartia tonsa)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Cesium formate	3495-36-1	(66% @ 28d)
Paraffin, petroleum, normal C5-C20	64771-72-8	Readily biodegradable (74% @ 28d)
Calcium chloride	10043-52-4	The methods for determining biodegradability are not applicable to inorganic substances.
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0	Readily biodegradable (83% @ 28d)

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Cesium formate	3495-36-1	< -2.20
Paraffin, petroleum, normal C5-C20	64771-72-8	> 6
Calcium chloride	10043-52-4	No information available
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0	4.91

12.4. Mobility in soil

Substances	CAS Number	Mobility
Cesium formate	3495-36-1	No information available
Paraffin, petroleum, normal C5-C20	64771-72-8	No information available
Calcium chloride	10043-52-4	No information available
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	57635-48-0	No information available

12.5. Results of PBT and vPvB assessment

No information available.

Substances	PBT and vPvB assessment
Cesium formate	Not PBT/vPvB
Paraffin, petroleum, normal C5-C20	Not PBT/vPvB
Calcium chloride	Not applicable
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyloxy]-	Not PBT/vPvB

12.6. Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

SECTION 13: Disposal Considerations

13.1. 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.

SECTION 14: Transport Information

IMDG/IMO

UN Number: Not restricted

UN Proper Shipping Name: Not restricted

Transport Hazard Class(es): Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

RID
UN Number: Not restricted
UN Proper Shipping Name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

ADR
UN Number: Not restricted
UN Proper Shipping Name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

IATA/ICAO
UN Number: Not restricted
UN Proper Shipping Name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

14.1. UN Number: Not restricted

14.2. UN Proper Shipping Name: Not restricted

14.3. Transport Hazard Class(es): Not applicable

14.4. Packing Group: Not applicable

14.5. Environmental Hazards: Not applicable

14.6. Special Precautions for User: None

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

SECTION 15: Regulatory Information

15.1. 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	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/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

Germany, Water Endangering Classes (WGK) WGK 1: Low hazard to waters.

15.2. Chemical Safety Assessment
No information available

SECTION 16: Other Information

Full text of H-Statements referred to under sections 2 and 3
None

Key or legend to abbreviations and acronyms
bw – body weight
CAS – Chemical Abstracts Service

CLP – REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Classification, Labelling and Packaging of substances and mixtures
EC – European Commission
EC10 – Effective Concentration 10%
EC50 – Effective Concentration 50%
EEC – European Economic Community
ErC50 – Effective Concentration growth rate 50%
IBC Code – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
LC50 – Lethal Concentration 50%
LD50 – Lethal Dose 50%
LL0 – Lethal Loading 0%
LL50 – Lethal Loading 50%
MARPOL – International Convention for the Prevention of Pollution from Ships
mg/kg – milligram/kilogram
mg/L – milligram/liter
NIOSH – National Institute for Occupational Safety and Health
NOEC – No Observed Effect Concentration
NTP – National Toxicology Program
OEL – Occupational Exposure Limit
PBT – Persistent Bioaccumulative and Toxic
PC – Chemical Product category
PEL – Permissible Exposure Limit
ppm – parts per million
PROC – Process category
REACH – REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL – Short Term Exposure Limit
SU – Sector of Use category

Key literature references and sources for data
www.ChemADVISOR.com/

Revision Date: 04-Jan-2011
Revision Note
Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 453/2010

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End of Safety Data Sheet