

SAFETY DATA SHEET

BE-7™

Revision Date: 13-Oct-2017

Revision Number: 8

1. Product Identifier & Identity for the Chemical

Statement of Hazardous Nature Hazardous according to the criteria of the 3rd Revised Edition of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS), Dangerous Goods according to the criteria of ADG.

1.1. Product Identifier

Product Name BE-7™

Other means of Identification

Synonyms None
Hazardous Material Number: HB006370

Recommended use of the chemical and restrictions on use

Recommended Use Biocide
Uses advised against No information available

Supplier's name, address and phone number

Manufacturer/Supplier Halliburton Australia Pty. Ltd.
15 Marriott Road, Jandakot, WA 6164
Australia
ACN Number: 009 000 775
Telephone Number: + 61 1 800 686 951
Fax Number: 61 (08) 9455 5300
E-mail Address fdunexchem@halliburton.com

Emergency phone number

+ 61 1 800 686 951
Global Incident Response Access Code: 334305
Contract Number: 14012

Australian Poisons Information Centre

24 Hour Service: - 13 11 26
Police or Fire Brigade: - 000 (exchange): - 1100

2. Hazard Identification

Statement of Hazardous Nature Hazardous according to the criteria of the 3rd Revised Edition of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS), Dangerous Goods according to the criteria of ADG.

Classification of the hazardous chemical

Skin Corrosion/Irritation	Category 1 - H314
Serious Eye Damage/Irritation	Category 1 - H318
Acute Aquatic Toxicity	Category 1 - H400
Chronic Aquatic Toxicity	Category 2 - H411
Oxidizing liquids.	Category 2 - H272
Substances/mixtures corrosive to metal	Category 1 - H290

Label elements, including precautionary statements

Hazard Pictograms**Signal Word**

DANGER

Hazard Statements:

H290 - May be corrosive to metals
 H314 - Causes severe skin burns and eye damage
 H318 - Causes serious eye damage
 H400 - Very toxic to aquatic life
 H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements**Prevention**

P103 - Read label before use
 P234 - Keep only in original packaging.
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P273 - Avoid release to the environment

Response

P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 P363 - Wash contaminated clothing before reuse
 P304 + P340 - IF INHALED: Remove victim 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
 P390 - Absorb spillage to prevent material damage
 P391 - Collect spillage
 P405 - Store locked up
 P406 - Store in corrosive resistant container with a resistant inner liner.
 P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

Storage**Disposal****Contains****Substances**

Sodium hypochlorite
 Sodium hydroxide

CAS Number

7681-52-9
 1310-73-2

Other hazards which do not result in classification

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).
 This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

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

3. Composition/information on Ingredients

Substances	CAS Number	PERCENT (w/w)	GHS Classification - Australia
Sodium hypochlorite	7681-52-9	10 - 30%	Skin Corr. 1B (H314) Eye Corr. 1 (H318) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)

			Ox. Liq. 2 (H272) Met. Corr. 1 (H290)
Sodium hydroxide	1310-73-2	1 - 5%	Skin Corr. 1A (H314) Eye Corr. 1 (H318) STOT SE 3 (H335) Met. Corr. 1 (H290)

4. First aid measures

Description of necessary first aid measures

Inhalation	If inhaled, move victim to fresh air and seek medical attention.
Eyes	Immediately flush eyes with large amounts of water for at least 30 minutes. Seek prompt medical attention.
Skin	In case of contact, immediately flush skin with plenty of soap and water for at least 30 minutes and remove contaminated clothing, shoes and leather goods immediately. Get medical attention immediately.
Ingestion	Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical attention.

Symptoms caused by exposure

Causes severe eye irritation which may damage tissue. Causes severe skin irritation with tissue destruction.

Medical Attention and Special Treatment

Notes to Physician Treat symptomatically

5. Fire Fighting Measures

Suitable extinguishing equipment

Suitable Extinguishing Media

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

Specific hazards arising from the chemical

Special exposure hazards in a fire

Decomposition in fire may produce harmful gases. Reacts with metals to generate flammable hydrogen gas.

Special protective equipment and precautions for fire fighters

Special protective equipment for firefighters

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

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing vapors. Ensure adequate ventilation. Evacuate all persons from the area.

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. Remove ignition sources and work with non-sparking tools. Contain spill with sand or other inert materials. Scoop up and remove. Hypochlorite can be broken down by covering it with a reducing agent such as sodium sulfite or sodium thiosulfate.

7. Handling and storage

7.1. Precautions for safe handling

Handling Precautions

Remove sources of ignition. Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Wash hands after use. Ensure adequate ventilation. Launder contaminated clothing before reuse. Use appropriate protective equipment.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities**Storage Information**

Store away from acids. Store away from reducing agents. Store in a cool well ventilated area. Store away from direct sunlight. Keep container closed when not in use. Store between 59 F (15 C) and 84 F (29 C). Keep from freezing. Product has a shelf life of up to 6 months at 60F or lower.

Other Guidelines

No information available

8. Exposure Controls/Personal Protection

Control parameters - exposure standards, biological monitoring**Exposure Limits**

Substances	CAS Number	Australia NOHSC	ACGIH TLV-TWA
Sodium hypochlorite	7681-52-9	Not applicable	Not applicable
Sodium hydroxide	1310-73-2	2 mg/m ³	Not applicable

Appropriate engineering controls**Engineering Controls**

Use in a well ventilated area. Local exhaust ventilation should be used in areas without good cross ventilation.

Personal protective equipment (PPE)**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. Acid gas respirator with a dust/mist filter. In high concentrations, supplied air respirator or a self-contained breathing apparatus.

Hand Protection

Impervious rubber gloves. Nitrile gloves. Neoprene gloves. Viton gloves Butyl rubber gloves.

Skin Protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron, rain jacket, pants or coverall, as appropriate, to prevent skin contact.

Eye Protection

Splashproof chemical monogoggles or safety glasses with side shields in conjunction with a face shield.

Other Precautions

Eyewash fountains and safety showers must be easily accessible.

Environmental Exposure Controls

Do not allow material to contaminate ground water system

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State: Liquid

Color: Clear light yellow

Odor: Pungent

Odor Threshold: No information available

PropertyValues

Remarks/ - Method

pH:

11-13

Freezing Point / Range

-13.6 °C

Melting Point / Range

No data available

Boiling Point / Range

No data available

Flash Point

No data available

Evaporation rate

No data available

Vapor Pressure	12 mmHg
Vapor Density	No data available
Specific Gravity	1.21
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

9.2. Other information

VOC Content (%) No data available

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

Avoid contact with hydrochloric acid. Can react to release chlorine gas. Contact with certain metals produces hydrogen gas. Hazards increase greatly if material is allowed to dry.

10.5. Incompatible materials

Strong acids. Contact with metals. Ammonium compounds. Organic matter. Cyanides. Alcohols. Nitrogen compounds. Cellulose. Ethyleneimine.

10.6. Hazardous decomposition products

Hydrogen chloride. Chlorine. Hypochlorous acid. Flammable hydrogen gas. Sodium oxides. Oxygen. Chlorine dioxide. Sodium chlorate

11. Toxicological Information

Information on routes of exposure

Principle Route of Exposure Eye or skin contact, inhalation.

Symptoms related to exposure**Most Important Symptoms/Effects**

Causes severe eye irritation which may damage tissue. Causes severe skin irritation with tissue destruction.

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium hypochlorite	7681-52-9	8200 mg/kg (Rat) 1110 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	>5.25 mg/L (Rat)
Sodium hydroxide	1310-73-2	Not applicable due to corrosivity of the substance.	Not applicable due to corrosivity of the substance.	Not applicable due to corrosivity of the substance.

Immediate, delayed and chronic health effects from exposure

Inhalation May cause respiratory irritation.
Eye Contact Causes severe eye burns.
Skin Contact Causes severe burns.
Ingestion Causes burns of the mouth, throat and stomach.

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

Exposure Levels

No data available

Interactive effects

Skin disorders. Lung disorders.

Data limitations

No data available

Substances	CAS Number	Skin corrosion/irritation
Sodium hypochlorite	7681-52-9	Skin, rabbit: Solutions can cause severe and painful burns.
Sodium hydroxide	1310-73-2	Causes severe burns

Substances	CAS Number	Serious eye damage/irritation
Sodium hypochlorite	7681-52-9	Eye, rabbit: May cause moderate to severe eye irritation.
Sodium hydroxide	1310-73-2	Causes severe eye burns (Rabbit)

Substances	CAS Number	Skin Sensitization
Sodium hypochlorite	7681-52-9	Did not cause sensitization on laboratory animals (guinea pig)
Sodium hydroxide	1310-73-2	Did not cause sensitization on laboratory animals (guinea pig)

Substances	CAS Number	Respiratory Sensitization
Sodium hypochlorite	7681-52-9	No information available
Sodium hydroxide	1310-73-2	No information available

Substances	CAS Number	Mutagenic Effects
Sodium hypochlorite	7681-52-9	In vivo tests did not show mutagenic effects.
Sodium hydroxide	1310-73-2	Did not show mutagenic effects in animal experiments In vitro tests did not show mutagenic effects.

Substances	CAS Number	Carcinogenic Effects
Sodium hypochlorite	7681-52-9	Did not show carcinogenic effects in animal experiments
Sodium hydroxide	1310-73-2	No data of sufficient quality are available.

Substances	CAS Number	Reproductive toxicity
Sodium hypochlorite	7681-52-9	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.
Sodium hydroxide	1310-73-2	No information available

Substances	CAS Number	STOT - single exposure
Sodium hypochlorite	7681-52-9	May cause disorder and damage to the Respiratory system. Mucous Membrane Gastrointestinal tract (GI)
Sodium hydroxide	1310-73-2	May cause respiratory irritation.

Substances	CAS Number	STOT - repeated exposure
Sodium hypochlorite	7681-52-9	No significant toxicity observed in animal studies at concentration requiring classification.
Sodium hydroxide	1310-73-2	No significant toxicity observed in animal studies at concentration requiring classification. Not applicable due to corrosivity of the substance.

Substances	CAS Number	Aspiration hazard
Sodium hypochlorite	7681-52-9	Not applicable
Sodium hydroxide	1310-73-2	Not applicable

12. Ecological Information

Ecotoxicity**Substance Ecotoxicity Data**

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Sodium hypochlorite	7681-52-9	EC50 0.095 mg/L (Skeletonema costatum) EC50 (72h) 0.03565 mg/L (Pseudokirchnerella subcapitata)	LC50 0.06 - 0.11 mg/L (Pimephales promelas) LC50 (96h) 0.2 mg/L (Salmo gairdneri) NOEC (28d) 0.04 mg	EC50 (3h) 563 mg/L (Activated sludge, domestic)	No information available

			CPO/L (Menidia peninsulae)		
Sodium hydroxide	1310-73-2	No information available	LC50(48h) 189 mg/L (Leuciscus idus melanotus) LLC50(48h) 189 mg/L (Leuciscus melanotus) LC50(24h) 145 mg/L (Poecilia reticulata) LC50(96h) 125 mg/L (Gambusia affinis) LOEL(150 d) = 25 mg/L (Lebistes reticulatus)	No information available	EC50 (48h) 40.4 mg/L (Ceriodaphnia sp.)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Sodium hypochlorite	7681-52-9	The methods for determining biodegradability are not applicable to inorganic substances.
Sodium hydroxide	1310-73-2	The methods for determining biodegradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Sodium hypochlorite	7681-52-9	Log Kow = -3.42
Sodium hydroxide	1310-73-2	No information available

12.4. Mobility in soil

Substances	CAS Number	Mobility
Sodium hypochlorite	7681-52-9	No information available
Sodium hydroxide	1310-73-2	No information available

12.6. Other adverse effects**Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors

13. Disposal Considerations

Safe handling and disposal methods

Disposal should be made in accordance with federal, state, and local regulations.

Disposal of any contaminated packaging

Follow all applicable national or local regulations.

Environmental regulations

Not applicable

14. Transport Information

Transportation Information**Australia ADG**

UN Number: UN1791
 UN proper shipping name: Hypochlorite Solution
 Transport Hazard Class(es): 8
 Packing Group: III
 Environmental Hazards: Marine Pollutant

IMDG/IMO

UN Number: UN1791
 UN proper shipping name: Hypochlorite Solution

Transport Hazard Class(es): 8
Packing Group: III
Environmental Hazards: Marine Pollutant
EMS: EmS F-A, S-B

IATA/CAO

UN Number UN1791
UN proper shipping name: Hypochlorite Solution
Transport Hazard Class(es): 8
Packing Group: III
Environmental Hazards: Marine Pollutant

Special precautions during transport

None

HazChem Code

2X

15. Regulatory Information

Safety, health and environmental regulations specific for the product**International Inventories****Australian AICS Inventory**

All components are listed on the AICS or are subject to a relevant exemption, permit, or assessment certificate.

New Zealand Inventory of Chemicals

All components are listed on the NZIoC or are subject to a relevant exemption, permit, or assessment certificate.

EINECS (European Inventory of Existing Chemical Substances)

This product, and all its components, complies with EINECS

US TSCA Inventory

All components listed on inventory or are exempt.

Canadian Domestic Substances List (DSL)

All components listed on inventory or are exempt.

Poisons Schedule number

S5

International Agreements**Montreal Protocol - Ozone Depleting Substances:**

Does not apply

Stockholm Convention - Persistent Organic Pollutants:

Does not apply

Rotterdam Convention - Prior Informed Consent:

Does not apply

Basel Convention - Hazardous Waste:

Does not apply

16. Other information

Date of preparation or review

Revision Date: 13-Oct-2017

Revision Note

SDS sections updated:
2

Full text of H-Statements referred to under sections 2 and 3

H272 - May intensify fire; oxidizer

H290 - May be corrosive to metals

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

H335 - May cause respiratory irritation

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

H411 - Toxic to aquatic life with long lasting effects

Additional information

For additional information on the use of this product, contact your local Halliburton representative.

For questions about the Safety Data Sheet for this or other Halliburton products, contact Chemical Stewardship at 1-580-251-4335.

Key abbreviations or acronyms used

bw – body weight
CAS – Chemical Abstracts Service
EC50 – Effective Concentration 50%
LC50 – Lethal Concentration 50%
LD50 – Lethal Dose 50%
LL50 – Lethal Loading 50%
mg/kg – milligram/kilogram
mg/L – milligram/liter
NOEC – No Observed Effect Concentration
OEL – Occupational Exposure Limit
PBT – Persistent Bioaccumulative and Toxic
ppm – parts per million
STEL – Short Term Exposure Limit
TWA – Time-Weighted Average
vPvB – very Persistent and very Bioaccumulative
h - hour
mg/m³ - milligram/cubic meter
mm - millimeter
mmHg - millimeter mercury
w/w - weight/weight
d - day

Key literature references and sources for data

www.ChemADVISOR.com/

Disclaimer Statement

This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of the user.

End of Safety Data Sheet