

SAFETY DATA SHEET**BORE-HIB®**

Revision Date: 17-Sep-2015

Revision Number: 21

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), Non-Dangerous Goods according to the criteria of ADG.

1.1. Product Identifier

Product Name BORE-HIB®

Other means of Identification

Synonyms: None
Product Code: HM005877

Recommended use of the chemical and restrictions on use

Recommended Use Shale stabilizer
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

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), Non-Dangerous Goods according to the criteria of ADG.

Classification of the hazardous chemical

Skin Corrosion / irritation	Category 2 - H315
Serious Eye Damage / Eye Irritation	Category 1 - H318

Label elements, including precautionary statements**Hazard Pictograms**



Signal Word	Danger
Hazard Statements	H315 - Causes skin irritation H318 - Causes serious eye damage
Precautionary Statements	
Prevention	P260 - Do not breathe dust/fume/gas/mist/vapors/spray P264 - Wash face, hands and any exposed skin thoroughly after handling P280 - Wear protective gloves/eye protection/face protection
Response	P302 + P352 - IF ON SKIN: Wash with plenty of soap and water P332 + P313 - If skin irritation occurs: Get medical advice/attention P362 - Take off contaminated clothing and wash before reuse P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P310 - Immediately call a POISON CENTRE or doctor/physician
Storage	None
Disposal	None
Contains Substances	CAS Number Silicic acid, potassium salt 1312-76-1
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).	
Australia Classification For the full text of the H-phrases mentioned in this Section, see Section 16	
Classification	Xi - Irritant.
Risk Phrases	R38 Irritating to skin. R41 Risk of serious damage to eyes.

3. Composition/information on Ingredients

Substances	CAS Number	PERCENT (w/w)	GHS Classification - Australia
Silicic acid, potassium salt	1312-76-1	30 - 60%	Skin Irrit. 2 (H315) Eye Corr. 1 (H318)

4. First aid measures

Description of necessary first aid measures

Inhalation	If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.
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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 skin irritation.

Medical Attention and Special Treatment

Notes to Physician Treat symptomatically

5. Fire Fighting Measures

Suitable extinguishing equipment**Suitable Extinguishing Media**

All standard fire fighting media

Extinguishing media which must not be used for safety reasons

None known.

Specific hazards arising from the chemical**Special Exposure Hazards**

Not applicable.

Special protective equipment and precautions for fire fighters**Special Protective Equipment for Fire-Fighters**

Not applicable.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Spills of this product are very slippery. 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. Contain spill with sand or other inert materials. Scoop up and remove.

7. Handling and storage

7.1. Precautions for Safe Handling**Handling Precautions**

Avoid contact with eyes, skin, or clothing. Avoid breathing mist. Material is slippery underfoot. Ensure adequate ventilation. Wash hands after use. 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 in a cool well ventilated area. Keep container closed when not in use. Store at temperatures between 40 and 90 F (5 and 35 C). Product has a shelf life of 36 months.

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
Silicic acid, potassium salt	1312-76-1	Not applicable	Not applicable

Appropriate engineering controls

Engineering Controls Use in a well ventilated area.

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	Not normally needed. But if significant exposures are possible then the following respirator is recommended: Dust/mist respirator. (N95, P2/P3)
Hand Protection	Chemical-resistant protective gloves (EN 374) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Nitrile gloves. (>= 0.4 mm thickness) This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced. Manufacturer's directions for use should be observed because of great diversity of types.
Skin Protection	Full protective chemical resistant clothing. 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	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 colorless to pale yellow
Odor:	Mild	Odor Threshold:	No information available

Property

Remarks/ - Method

pH:

Freezing Point/Range

Melting Point/Range

Boiling Point/Range

Flash Point

Evaporation rate

Vapor Pressure

Vapor Density

Specific Gravity

Water Solubility

Solubility in other solvents

Partition coefficient: n-octanol/water

Autoignition Temperature

Decomposition Temperature

Viscosity

Explosive Properties

Oxidizing Properties

Values

11.9

No data available

No data available

100 °C / 212 °F

> 177 °C / 350.6 °F PMCC

No data available

No data available

No data available

1.36

Miscible with water

No data available

No data available

No data available

No data available

No data available

No information available

No information available

9.2. Other information

VOC Content (%)	No data available
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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

Contact with certain metals produces hydrogen gas.

10.5. Incompatible Materials

Amphoteric metals such as aluminum, magnesium, lead, tin, or zinc.

10.6. Hazardous Decomposition Products

Flammable hydrogen gas.

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 skin irritation.

Numerical measures of toxicity

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Silicic acid, potassium salt	1312-76-1	1300 mg/kg (Rat)	> 5000 mg/kg (Rat)	> 2.06 mg/L (Rat)

Immediate, delayed and chronic health effects from exposure

Inhalation	May cause respiratory irritation.
Eye Contact	Causes severe eye irritation which may damage tissue.
Skin Contact	Causes moderate skin irritation.
Ingestion	Irritation 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.

Data limitations

No data available

Substances	CAS Number	Skin corrosion/irritation
Silicic acid, potassium salt	1312-76-1	Causes moderate skin irritation. (Rabbit)

Substances	CAS Number	Eye damage/irritation
Silicic acid, potassium salt	1312-76-1	Corrosive to eyes (Rabbit)

Substances	CAS Number	Skin Sensitization
Silicic acid, potassium salt	1312-76-1	Did not cause sensitization on laboratory animals (guinea pig) (mouse)

Substances	CAS Number	Respiratory Sensitization
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Silicic acid, potassium salt	1312-76-1	No information available
Substances	CAS Number	Mutagenic Effects
Silicic acid, potassium salt	1312-76-1	In vitro tests did not show mutagenic effects (similar substances)
Substances	CAS Number	Carcinogenic Effects
Silicic acid, potassium salt	1312-76-1	Did not show carcinogenic or teratogenic effects in animal experiments (similar substances)
Substances	CAS Number	Reproductive toxicity
Silicic acid, potassium salt	1312-76-1	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)
Substances	CAS Number	STOT - single exposure
Silicic acid, potassium salt	1312-76-1	No significant toxicity observed in animal studies at concentration requiring classification.
Substances	CAS Number	STOT - repeated exposure
Silicic acid, potassium salt	1312-76-1	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Substances	CAS Number	Aspiration hazard
Silicic acid, potassium salt	1312-76-1	Not applicable

12. Ecological Information

Ecotoxicity

Product Ecotoxicity Data

No data available

Substance Ecotoxicity Data

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Silicic acid, potassium salt	1312-76-1	EC50 (72h) 201mg/L (Skeletonema costatum) EC50 (72h) 207 mg/L (Desmodesmus subspicatus)	LC50 (96h) 301-478 mg/L (Lepomis macrochirus) LC50 (96h) 3185 mg/L (Brachydanio rerio) (similar substance) LC50 (96h) > 1800 mg/L (Scophthalmus maximus)	No information available	EC50 (96) 216 mg/L (Daphnia magna) EC50 (48h) 1528.57 mg/L (Acartia tonsa)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Silicic acid, potassium salt	1312-76-1	The methods for determining biodegradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Silicic acid, potassium salt	1312-76-1	No information available

12.4. Mobility in soil

Substances	CAS Number	Mobility
Silicic acid, potassium salt	1312-76-1	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

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

Special precautions during transport

None

HazChem Code

None Allocated

15. Regulatory Information

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

Australian AICS Inventory	All components listed on inventory or are exempt.
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New Zealand Inventory of Chemicals	All components listed on inventory or are exempt.
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EINECS Inventory	This product, and all its components, complies with EINECS
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US TSCA Inventory	All components listed on inventory or are exempt.
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Canadian DSL Inventory	All components listed on inventory or are exempt.
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Poisons Schedule number

None Allocated

16. Other information

Date of preparation or review

Revision Date: 17-Sep-2015

Revision Note

SDS sections updated: 2 14

Full text of R-phrases referred to under Sections 2 and 3

R38 Irritating to skin.

R41 Risk of serious damage to eyes.

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

H315 - Causes skin irritation

H318 - Causes serious eye damage

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

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End of Safety Data Sheet