

## SAFETY DATA SHEET

**Product Trade Name:** BRYCE TEST

Revision Number: 5

### 1. Identification

#### 1.1. Product Identifier

**Product Trade Name:** BRYCE TEST  
**Synonyms** None  
**Chemical Family:** Blend  
**Internal ID Code** BRYCETEST

#### 1.2 Recommended use and restrictions on use

**Application:** Explosive Charge  
**Uses advised against** No information available

#### 1.3 Manufacturer's Name and Contact Details

##### **Manufacturer/Supplier**

Halliburton Energy Services, Inc.  
P.O. Box 1431  
Duncan, Oklahoma 73536-0431  
Telephone: 1-281-871-6107

Halliburton Group Canada  
645 - 7th Ave SW Suite 1800  
Calgary, AB, T2P 4G8, Canada  
Telephone: 1-403-231-9300

**Prepared By** Chemical Stewardship  
Telephone: 1-281-871-6107  
e-mail: fdunexchem@halliburton.com

#### 1.4. Emergency telephone number:

**Emergency Telephone Number** 1-866-519-4752 or 1-760-476-3962 (accessible 24 hours a day / 7 days a week)  
Global Incident Response Access Code: 334305  
Contract Number: 14012

### 2. Hazards Identification

#### 2.1 Classification in accordance with paragraph (d) of §1910.1200

#### 2.2. Label Elements

**Hazard Pictograms**

**Signal Word:** Not Classified

**Hazard Statements** Not Hazardous

**Precautionary Statements**

**BRYCE TEST**

---

<b>Prevention</b>	None
<b>Response</b>	None
<b>Storage</b>	None
<b>Disposal</b>	None

**2.3 Hazards not otherwise classified**

None known

**3. Composition/information on Ingredients**

<b>Substances</b>	<b>CAS Number</b>	<b>PERCENT (w/w)</b>	<b>GHS Classification - US</b>
naphthalene-2-sulfonic acid	120-18-3	5 - 10%	Not classified
1,5-Naphthalenedisulfonic acid disodium salt hydrate	207569-02-6	5 - 10%	Not classified
Sodium 2-naphthalenesulfonate	532-02-5	5 - 10%	Not classified
1,5-Naphthalenedisulfonic acid	81-04-9	5 - 10%	Not classified
Amides, C12-18 and C18-unsatd., N,N-bis(hydroxyethyl)	90622-74-5	5 - 10%	Not classified

The exact percentage (concentration) of the composition has been withheld as proprietary.

**4. First Aid Measures****4.1. Description of first aid measures****4.2 Most important symptoms/effects, acute and delayed**

No information available

**4.3. Indication of any immediate medical attention and special treatment needed****Notes to Physician** Treat symptomatically.**5. Fire-fighting 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 Specific hazards arising from the substance or mixture****Special exposure hazards in a fire**

None anticipated

**5.3 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**

See Section 8 for additional information

**6.2. Environmental precautions**

None known.

**6.3. Methods and material for containment and cleaning up****7. Handling and storage****7.1. Precautions for safe handling****Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

**7.2. Conditions for safe storage, including any incompatibilities****8. Exposure Controls/Personal Protection****8.1 Occupational Exposure Limits**

Substances	CAS Number	OSHA PEL-TWA	ACGIH TLV-TWA
naphthalene-2-sulfonic acid	120-18-3	Not applicable	Not applicable
1,5-Naphthalenedisulfonic acid disodium salt hydrate	207569-02-6	Not applicable	Not applicable
Sodium 2-naphthalenesulfonate	532-02-5	Not applicable	Not applicable
1,5-Naphthalenedisulfonic acid	81-04-9	Not applicable	Not applicable
Amides, C12-18 and C18-unsatd., N,N-bis(hydroxyethyl)	90622-74-5	Not applicable	Not applicable

**8.2 Appropriate engineering controls****Engineering Controls**

None known.

**8.3 Individual protection measures, such as personal protective equipment****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 determined

**Hand Protection**

Use gloves which are suitable for the chemicals present in this product as well as other environmental factors in the workplace.

**Skin Protection**

Wear protective clothing appropriate for the work environment.

**Eye Protection**

Safety glasses with side-shields. If splashes are likely to occur, wear: Goggles, Face-shield.

**Other Precautions**

None known.

**9. Physical and Chemical Properties****9.1. Information on basic physical and chemical properties****Physical State:** Not determined**Color:** Not determined**Odor:** Not determined**Odor:** No information available**Threshold:**PropertyValues

Remarks/ - Method

**pH:**

No data available

**Freezing Point / Range**

No data available

**Melting Point / Range**

No data available

**Pour Point / Range**

No data available

<b>Boiling Point / Range</b>	No data available
<b>Flash Point</b>	No data available
<b>Flammability (solid, gas)</b>	No data available
<b>Upper flammability limit</b>	No data available
<b>Lower flammability limit</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>	No data available
<b>Water Solubility</b>	No data available
<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
<b>9.2. Other information</b>	
<b>VOC Content (%)</b>	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

None anticipated

### 10.5. Incompatible materials

None known.

### 10.6. Hazardous decomposition products

None known.

## 11. Toxicological Information

### 11.1 Information on likely routes of exposure

**Principle Route of Exposure**      Ingestion. Skin contact. Eye contact. Inhalation.

### 11.2 Symptoms related to the physical, chemical and toxicological characteristics

**Acute Toxicity**

### 11.3 Toxicity data

#### Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
naphthalene-2-sulfonic acid	120-18-3	4440 mg/kg ( Rat )	No data available	No data available

**BRYCE TEST**

1,5-Naphthalenedisulfonic acid disodium salt hydrate	207569-02-6	No data available	No data available	No data available
Sodium 2-naphthalenesulfonate	532-02-5	13900 mg/kg ( Rat )	No data available	No data available
1,5-Naphthalenedisulfonic acid	81-04-9	30 g/kg ( Rat )	No data available	No data available
Amides, C12-18 and C18-unsatd., N,N-bis(hydroxyethyl)	90622-74-5	No data available	No data available	No data available

**12. Ecological Information****12.1. Toxicity****Substance Ecotoxicity Data**

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
naphthalene-2-sulfonic acid	120-18-3	No information available	No information available	No information available	No information available
1,5-Naphthalenedisulfonic acid disodium salt hydrate	207569-02-6	No information available	No information available	No information available	No information available
Sodium 2-naphthalenesulfonate	532-02-5	No information available	No information available	No information available	No information available
1,5-Naphthalenedisulfonic acid	81-04-9	No information available	No information available	No information available	No information available
Amides, C12-18 and C18-unsatd., N,N-bis(hydroxyethyl)	90622-74-5	No information available	No information available	No information available	No information available

**12.2. Persistence and degradability**

Substances	CAS Number	Persistence and Degradability
naphthalene-2-sulfonic acid	120-18-3	No information available
1,5-Naphthalenedisulfonic acid disodium salt hydrate	207569-02-6	No information available
Sodium 2-naphthalenesulfonate	532-02-5	No information available
1,5-Naphthalenedisulfonic acid	81-04-9	No information available
Amides, C12-18 and C18-unsatd., N,N-bis(hydroxyethyl)	90622-74-5	No information available

**12.3. Bioaccumulative potential**

Substances	CAS Number	Bioaccumulation
naphthalene-2-sulfonic acid	120-18-3	No information available
1,5-Naphthalenedisulfonic acid disodium salt hydrate	207569-02-6	No information available
Sodium 2-naphthalenesulfonate	532-02-5	No information available
1,5-Naphthalenedisulfonic acid	81-04-9	No information available

**BRYCE TEST**

Amides, C12-18 and C18-unsatd., N,N-bis(hydroxyethyl)	90622-74-5	No information available
--	------------	--------------------------

**12.4. Mobility in soil**

Substances	CAS Number	Mobility
naphthalene-2-sulfonic acid	120-18-3	No information available
1,5-Naphthalenedisulfonic acid disodium salt hydrate	207569-02-6	No information available
Sodium 2-naphthalenesulfonate	532-02-5	No information available
1,5-Naphthalenedisulfonic acid	81-04-9	No information available
Amides, C12-18 and C18-unsatd., N,N-bis(hydroxyethyl)	90622-74-5	No information available

**12.5 Other adverse effects**

No information available

**13. Disposal Considerations****13.1. Waste treatment methods**

**Disposal methods** Disposal should be made in accordance with federal, state, and local regulations.  
**Contaminated Packaging** Follow all applicable national or local regulations.

**14. Transport Information****US DOT**

**UN Number** Not restricted  
**UN proper shipping name:** Not restricted  
**Transport Hazard Class(es):** Not applicable  
**Packing Group:** Not applicable  
**Environmental Hazards:** Not applicable

**Canadian TDG**

**UN Number** Not restricted  
**UN proper shipping name:** Not restricted  
**Transport Hazard Class(es):** Not applicable  
**Packing Group:** Not applicable  
**Environmental Hazards:** Not applicable

**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

**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

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

**Special Precautions for User** None

**15. Regulatory Information**

## US Regulations

### US TSCA Inventory

Product contains one or more components not listed on the inventory.

### TSCA Significant New Use Rules - S5A2

Substances	CAS Number	TSCA Significant New Use Rules - S5A2	TSCA Section 5(E) Consent Orders
naphthalene-2-sulfonic acid	120-18-3	Not applicable	Not applicable
1,5-Naphthalenedisulfonic acid disodium salt hydrate	207569-02-6	Not applicable	Not applicable
Sodium 2-naphthalenesulfonate	532-02-5	Not applicable	Not applicable
1,5-Naphthalenedisulfonic acid	81-04-9	Not applicable	Not applicable
Amides, C12-18 and C18-unsatd., N,N-bis(hydroxyethyl)	90622-74-5	Not applicable	Not applicable

### EPA SARA Title III Extremely Hazardous Substances

Substances	CAS Number	EPA SARA Title III Extremely Hazardous Substances
naphthalene-2-sulfonic acid	120-18-3	Not applicable
1,5-Naphthalenedisulfonic acid disodium salt hydrate	207569-02-6	Not applicable
Sodium 2-naphthalenesulfonate	532-02-5	Not applicable
1,5-Naphthalenedisulfonic acid	81-04-9	Not applicable
Amides, C12-18 and C18-unsatd., N,N-bis(hydroxyethyl)	90622-74-5	Not applicable

### EPA SARA (311,312) Hazard Class

None

### EPA SARA (313) Chemicals

Substances	CAS Number	Toxic Release Inventory (TRI) - Group I	Toxic Release Inventory (TRI) - Group II
naphthalene-2-sulfonic acid	120-18-3	Not applicable	Not applicable
1,5-Naphthalenedisulfonic acid disodium salt hydrate	207569-02-6	Not applicable	Not applicable
Sodium 2-naphthalenesulfonate	532-02-5	Not applicable	Not applicable
1,5-Naphthalenedisulfonic acid	81-04-9	Not applicable	Not applicable
Amides, C12-18 and C18-unsatd., N,N-bis(hydroxyethyl)	90622-74-5	Not applicable	Not applicable

### EPA CERCLA/Superfund Reportable Spill Quantity

Substances	CAS Number	CERCLA RQ
naphthalene-2-sulfonic acid	120-18-3	Not applicable
1,5-Naphthalenedisulfonic acid disodium salt hydrate	207569-02-6	Not applicable
Sodium 2-naphthalenesulfonate	532-02-5	Not applicable
1,5-Naphthalenedisulfonic acid	81-04-9	Not applicable
Amides, C12-18 and C18-unsatd., N,N-bis(hydroxyethyl)	90622-74-5	Not applicable

### EPA RCRA Hazardous Waste Classification

If product becomes a waste, it does NOT meet the criteria of a hazardous waste as defined by the US EPA.

### California Proposition 65

Substances	CAS Number	California Proposition 65
naphthalene-2-sulfonic acid	120-18-3	Not applicable
1,5-Naphthalenedisulfonic acid disodium salt hydrate	207569-02-6	Not applicable
Sodium 2-naphthalenesulfonate	532-02-5	Not applicable
1,5-Naphthalenedisulfonic acid	81-04-9	Not applicable
Amides, C12-18 and C18-unsatd., N,N-bis(hydroxyethyl)	90622-74-5	Not applicable

### U.S. State Right-to-Know Regulations

Substances	CAS Number	MA Right-to-Know Law	NJ Right-to-Know Law	PA Right-to-Know Law

## BRYCE TEST

naphthalene-2-sulfonic acid	120-18-3	Not applicable	Not applicable	Not applicable
1,5-Naphthalenedisulfonic acid disodium salt hydrate	207569-02-6	Not applicable	Not applicable	Not applicable
Sodium 2-naphthalenesulfonate	532-02-5	Not applicable	Not applicable	Not applicable
1,5-Naphthalenedisulfonic acid	81-04-9	Not applicable	Not applicable	Not applicable
Amides, C12-18 and C18-unsatd., N,N-bis(hydroxyethyl)	90622-74-5	Not applicable	Not applicable	Not applicable

## Canadian Regulations

**Canadian Domestic Substances List (DSL)** Product contains one or more components not listed on the inventory.

## 16. Other information

### Preparation Information

#### Prepared By

Chemical Stewardship  
Telephone: 1-281-871-6107  
e-mail: fdunexchem@halliburton.com

#### Reason for Revision

Not applicable

### 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 or legend to abbreviations and acronyms used in the safety data sheet

bw – body weight

CAS – Chemical Abstracts Service

d - day

EC50 – Effective Concentration 50%

ErC50 – Effective Concentration growth rate 50%

h - hour

LC50 – Lethal Concentration 50%

LD50 – Lethal Dose 50%

LL50 – Lethal Loading 50%

mg/kg – milligram/kilogram

mg/L – milligram/liter

mg/m<sup>3</sup> - milligram/cubic meter

mm - millimeter

mmHg - millimeter mercury

NIOSH – National Institute for Occupational Safety and Health

NTP – National Toxicology Program

OEL – Occupational Exposure Limit

PEL – Permissible Exposure Limit

ppm – parts per million

STEL – Short Term Exposure Limit

TWA – Time-Weighted Average

UN – United Nations

w/w - weight/weight

### Key literature references and sources for data

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