

SAFETY DATA SHEET

SUSPEND HT

Revision Date: 18-Nov-2015

Revision Number: 22

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 SUSPEND HT

Other means of Identification

Synonyms: None
Product Code: HM001333

Recommended use of the chemical and restrictions on use

Recommended Use Suspending Agent
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 |
| Reproductive Toxicity | Category 2 - H361 |

Label elements, including precautionary statements

Hazard Pictograms

**Signal Word**

Danger

Hazard Statements

H315 - Causes skin irritation
 H318 - Causes serious eye damage
 H361 - Suspected of damaging fertility or the unborn child

Precautionary Statements**Prevention**

P201 - Obtain special instructions before use
 P202 - Do not handle until all safety precautions have been read and understood
 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
 P281 - Use personal protective equipment as required

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 CENTER or doctor/physician
 P308 + P313 - IF exposed or concerned: Get medical advice/attention

Storage

P405 - Store locked up

Disposal

P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

Contains**Substances**

Sodium hydroxide
 Sodium borate

CAS Number

1310-73-2
 1303-96-4

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

Xn - Harmful

Risk Phrases

R38 Irritating to skin.
 R41 Risk of serious damage to eyes.
 R62 Possible risk of impaired fertility.

3. Composition/information on Ingredients

| Substances | CAS Number | PERCENT (w/w) | GHS Classification - Australia |
|------------------|------------|---------------|--|
| Sodium hydroxide | 1310-73-2 | 1 - 5% | Skin Corr. 1A (H314) Eye Corr. 1 (H318) STOT SE 3 (H335) |

| | | | |
|---------------|-----------|----------|---|
| Sodium borate | 1303-96-4 | 0.1 - 1% | Met. Corr. 1 (H290) Eye Irrit. 2A (H319) Repr. 1 (H360) |
|---------------|-----------|----------|---|

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. |
| 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 | Under normal conditions, first aid procedures are not required. |

Symptoms caused by exposure

Causes severe eye irritation which may damage tissue. Causes skin irritation. Potential reproductive hazard.

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

Decomposition in fire may produce harmful gases. Organic dust in the presence of an ignition source can be explosive in high concentrations. Good housekeeping practices are required to minimize this potential.

Special protective equipment and precautions for fire fighters

Special Protective Equipment for Fire-Fighters

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 creating and breathing dust. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

6.2. Environmental precautions

None known.

6.3. Methods and material for containment and cleaning up

Scoop up and remove.

7. Handling and storage

7.1. Precautions for Safe Handling

Handling Precautions

Avoid contact with eyes, skin, or clothing. Avoid creating or inhaling dust. 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 away from oxidizers. Store in a cool, dry location. Product has a shelf life of 24 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 |
|------------------|------------|--------------------------|---|
| Sodium hydroxide | 1310-73-2 | 2 mg/m ³ | 2 mg/M3 |
| Sodium borate | 1303-96-4 | TWA: 5 mg/m ³ | TWA: 2 mg/m ³ STEL: 6 mg/m ³ |

Appropriate engineering controls**Engineering Controls**

Use in a well ventilated area.

Personal protective equipment (PPE)**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

Normal work gloves.

Skin Protection

Normal work coveralls.

Eye Protection

Wear safety glasses or goggles to protect against exposure.

Other Precautions

None known.

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: Solid

Color: Cream to light yellow

Odor: Mild

Odor Threshold: No information available

PropertyValues

Remarks/ - Method

pH:

11

Freezing Point/Range

No data available

Melting Point/Range

No data available

Boiling Point/Range

No data available

Flash Point

> 93 °C / > 200 °F

Evaporation rate

No data available

Vapor Pressure

No data available

Vapor Density

No data available

Specific Gravity

0.6

Water Solubility

Soluble in water

Solubility in other solvents

No data available

Partition coefficient: n-octanol/water

No data available

Autoignition Temperature

510 °C / 950 °F

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

None anticipated

10.5. Incompatible Materials

Strong oxidizers.

10.6. Hazardous Decomposition Products

Carbon monoxide and carbon dioxide.

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. Potential reproductive hazard.

Numerical measures of toxicity**Toxicology data for the components**

| Substances | CAS Number | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|------------------|------------|--|--|--|
| Sodium hydroxide | 1310-73-2 | No data available | 1350 mg/kg (Rabbit) | No data available |
| Sodium borate | 1303-96-4 | 2660 mg/kg (Rat) 2403 mg/kg (Rat) > 2500 mg/kg (Rat) 2000 mg/kg (Mouse) | > 2000 mg/kg (Rabbit) >10,000 mg/kg (Rabbit) > 2000 mg/kg (Rabbit) (Similar substance) | > 2.04 mg/L (Rat) 4h (similar substance) |

Immediate, delayed and chronic health effects from exposure

Inhalation May cause respiratory irritation.
Eye Contact Causes severe eye irritation which may damage tissue. May cause eye burns.
Skin Contact Causes moderate skin irritation.
Ingestion Causes burns of the mouth, throat and stomach.

Chronic Effects/Carcinogenicity Prolonged or repeated exposure may cause reproductive system damage.

Exposure Levels

No data available

Interactive effects

Allergic respiratory reactions.

Data limitations

No data available

| Substances | CAS Number | Skin corrosion/irritation |
|------------------|------------|---|
| Sodium hydroxide | 1310-73-2 | Causes severe burns |
| Sodium borate | 1303-96-4 | Not irritating to skin in rabbits. (similar substances) |

| Substances | CAS Number | Eye damage/irritation |
|------------------|------------|---|
| Sodium hydroxide | 1310-73-2 | Causes severe eye burns (Rabbit) |
| Sodium borate | 1303-96-4 | Causes moderate eye irritation. (Rabbit) (similar substances) |

| Substances | CAS Number | Skin Sensitization |
|------------------|------------|---|
| Sodium hydroxide | 1310-73-2 | Did not cause sensitization on laboratory animals (guinea pig) |
| Sodium borate | 1303-96-4 | Patch test on human volunteers did not demonstrate sensitization properties |

| Substances | CAS Number | Respiratory Sensitization |
|------------|------------|---------------------------|
|------------|------------|---------------------------|

| | | |
|------------------|-----------|--------------------------|
| Sodium hydroxide | 1310-73-2 | No information available |
| Sodium borate | 1303-96-4 | No information available |

| Substances | CAS Number | Mutagenic Effects |
|------------------|------------|--|
| Sodium hydroxide | 1310-73-2 | Did not show mutagenic effects in animal experiments In vitro tests did not show mutagenic effects |
| Sodium borate | 1303-96-4 | Not regarded as mutagenic. (similar substances) |

| Substances | CAS Number | Carcinogenic Effects |
|------------------|------------|---|
| Sodium hydroxide | 1310-73-2 | No data of sufficient quality are available. |
| Sodium borate | 1303-96-4 | Did not show carcinogenic effects in animal experiments |

| Substances | CAS Number | Reproductive toxicity |
|------------------|------------|--|
| Sodium hydroxide | 1310-73-2 | No information available |
| Sodium borate | 1303-96-4 | Experiments have shown reproductive toxicity effects on laboratory animals |

| Substances | CAS Number | STOT - single exposure |
|------------------|------------|--|
| Sodium hydroxide | 1310-73-2 | May cause respiratory irritation. |
| Sodium borate | 1303-96-4 | May cause disorder and damage to the (Kidney), Central Nervous System (CNS), Respiratory system. |

| Substances | CAS Number | STOT - repeated exposure |
|------------------|------------|---|
| Sodium hydroxide | 1310-73-2 | No significant toxicity observed in animal studies at concentration requiring classification. Not applicable due to corrosivity of the substance. |
| Sodium borate | 1303-96-4 | No significant toxicity observed in animal studies at concentration requiring classification. |

| Substances | CAS Number | Aspiration hazard |
|------------------|------------|-------------------|
| Sodium hydroxide | 1310-73-2 | Not applicable |
| Sodium borate | 1303-96-4 | 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 |
|------------------|------------|---|--|----------------------------|--|
| Sodium hydroxide | 1310-73-2 | No information available | LC50 (96h) 125 mg/L (Gambusia affinis) LC50 (48h) 189 mg/L (Leuciscus melanotus) LC50 (24h) 145 mg/L (Poecilia reticulata) | No information available | EC50 (48h) 40.4 mg/L (Ceriodaphnia sp.) |
| Sodium borate | 1303-96-4 | EC50 (96h) 15.4 mg/L (Pseudokirchnerella subcapitata) EC10 (3d) 35 mg/L (Pseudokirchnerella subcapitata) | LC50 (96h) 14.2 mg/L (Danio rerio) LC50 (96h) 27 mg/L (Oncorhynchus mykiss) | No information available | EC50 (48h) 102 mg/L (Ceriodaphnia dubia) LC50 (96h) > 447 mg/L (Sphaerium simile) LC50 (96h) > 544 mg/L (Megaloniaias nervosa) |

12.2. Persistence and degradability

Product is biodegradable

| Substances | CAS Number | Persistence and Degradability |
|------------------|------------|--|
| Sodium hydroxide | 1310-73-2 | The methods for determining biodegradability are not applicable to inorganic substances. |
| Sodium borate | 1303-96-4 | The methods for determining biodegradability are not applicable to inorganic substances. |

12.3. Bioaccumulative potential

Does not bioaccumulate.

| Substances | CAS Number | Log Pow |
|------------------|------------|--------------------------|
| Sodium hydroxide | 1310-73-2 | No information available |
| Sodium borate | 1303-96-4 | No information available |

12.4. Mobility in soil

| Substances | CAS Number | Mobility |
|------------------|------------|--------------------------|
| Sodium hydroxide | 1310-73-2 | No information available |
| Sodium borate | 1303-96-4 | 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**

Bury in a licensed landfill according to 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. |
| New Zealand Inventory of Chemicals | All components listed on inventory or are exempt. |
| 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. |

Poisons Schedule number

None Allocated

International Agreements

| | |
|---|----------------|
| Montreal Protocol - Ozone Depleting Substances: | Does not apply |
| Stolkhom 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: 18-Nov-2015

Revision Note

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

R38 Irritating to skin.

R41 Risk of serious damage to eyes.

R62 Possible risk of impaired fertility.

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

H290 - May be corrosive to metals

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

H315 - Causes skin irritation

H318 - Causes serious eye damage

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H360 - May damage fertility or the unborn child

H370 - Causes damage to organs

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