HALLIBURTON

SAFETY DATA SHEET

N-VIS® HI Plus

Revision Date: 30-Oct-2015 Revision Number: 16

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 N-VIS® HI Plus

Other means of Identification

Synonyms: None Product Code: HM006318

Recommended use of the chemical and restrictions on use

Recommended Use Viscosifier

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), Dangerous Goods according to

the criteria of ADG.

Classification of the hazardous chemical

Serious Eye Damage / Eye Irritation Category 2 - H319

Label elements, including precautionary statements

Hazard Pictograms



Signal Word Warning

Hazard Statements H319 - Causes serious eye irritation

Precautionary Statements

Prevention P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear eye protection/face protection

Response 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

Storage None

Disposal None

Contains

SubstancesCAS NumberSodium carbonate497-19-8

Other hazards which do not result in classification

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not 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 R36 Irritating to eyes.

3. Composition/information on Ingredients

Substances	CAS Number	PERCENT (w/w)	GHS Classification - Australia
Sodium carbonate	497-19-8	10 - 30%	Eye Irrit. 2 (H319)

4. First aid measures

Description of necessary first aid measures

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

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.

Ingestion Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical

attention.

Symptoms caused by exposure

Causes eye irritation.

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

Not applicable.

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

6.2. Environmental precautions

Prevent from entering sewers, waterways, or low areas.

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 in a cool, dry location. Store away from acids. 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 carbonate	497-19-8	Not applicable	Not applicable		

Appropriate engineering controls

Engineering Controls Use in a well ventilated area.

Personal protective equipment (PPE)

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.

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. Polychloroprene gloves with natural-latex liner. (>= 0.5 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 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: Powder Color: White to gray

Odor: Odorless Odor Threshold: No information available

Property Values Values

Remarks/ - Method

pH: 10.5 (1%)

Freezing Point/Range

Melting Point/Range

No data available

Vapor Pressure

No data available

Specific Gravity 1.45

Water Solubility
Insoluble in water
Solubility in other solvents
Partition coefficient: n-octanol/water
Autoignition Temperature
Decomposition Temperature
Viscosity
Insoluble in water
No data available
No data available
No data available
No data available

Explosive PropertiesNo 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 under recommended storage conditions

10.3. Possibility of Hazardous Reactions

Will Not Occur

10.4. Conditions to Avoid

None known.

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 eye irritation.

Numerical measures of toxicity

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium carbonate	497-19-8	4090 mg/kg (Rat) 2800 mg/kg (Rat)	2210 mg/kg (Mouse) > 2000 mg/kg (Rabbit)	2.3 mg/L (Rat) 2h

Immediate, delayed and chronic health effects from exposure

Inhalation None known.

Eye Contact Causes moderate eye irritation.

Skin Contact None known.
Ingestion None known.

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

None known.

Data limitations

No data available

Substances	CAS Number	Skin corrosion/irritation	
Sodium carbonate	497-19-8	Non-irritating to the skin	
Substances	CAS Number	Eye damage/irritation	
Sodium carbonate	497-19-8	Irritating to eyes.	
		,	
Substances	CAS Number	Skin Sensitization	
Sodium carbonate	497-19-8	Not classified	
Substances	CAS Number	espiratory Sensitization	
Sodium carbonate	497-19-8	No information available	
		,	
Substances	CAS Number	Mutagenic Effects	
Sodium carbonate	497-19-8	In vivo tests did not show mutagenic effects.	
Substances	CAS Number	Carcinogenic Effects	
Sodium carbonate	497-19-8	No information available.	
		_	
Substances	CAS Number	Reproductive toxicity	
Sodium carbonate	497-19-8	Did not show teratogenic effects in animal experiments.	

Substances	CAS Number	STOT - single exposure
Sodium carbonate	497-19-8	No significant toxicity observed in animal studies at concentration requiring classification.
Substances	CAS Number	STOT - repeated exposure
Sodium carbonate	497-19-8	No significant toxicity observed in animal studies at concentration requiring classification.
Substances	CAS Number	Aspiration hazard
Sodium carbonate	497-19-8	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	Toxicity to Invertebrates
Cabotarioco			,	Microorganisms	
Sodium carbonate	497-19-8	EC50 242 mg/L (Nitzschia)	TLM24 385 mg/L (Lepomis macrochirus) LC50 310-1220 mg/L (Pimephales promelas) LC50 (96h) 300 mg/L (Lepomis macrochirus)	No information available	EC50 265 mg/L (Daphnia magna) EC50 (48h) 200 – 227 mg/L (Ceriodaphnia sp.)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Sodium carbonate	497-19-8	The methods for determining biodegradability are
		not applicable to inorganic substances.

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Sodium carbonate	497-19-8	No information available

12.4. Mobility in soil

Substances	CAS Number	Mobility
Sodium carbonate	497-19-8	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

<u>Transportation Information</u>

UN Number: Not restricted

UN Proper Shipping Name:
Transport Hazard Class(es):
Packing Group:
Environmental Hazards:
Not restricted
Not applicable
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
New Zealand Inventory of
All components listed on inventory or are exempt.
All components listed on inventory or are exempt.

Chemicals

EINECS Inventory This product, and all its components, complies with EINECS

US TSCA Inventory

All components listed on inventory or are exempt.

All components listed on inventory or are exempt.

Poisons Schedule number

None Allocated

International Agreements

Montreal Protocol - Ozone Depleting Substances:Does not applyStolkhom Convention - Persistent Organic Pollutants:Does not applyRotterdam Convention - Prior Informed Consent:Does not applyBasel Convention - Hazardous Waste:Does not apply

16. Other information

Date of preparation or review

Revision Date: 30-Oct-2015

Revision Note

SDS sections updated: 2

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

R36 - Irritating to eyes

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

H319 - Causes serious eye irritation

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 abreviations 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