HALLIBURTON

SAFETY DATA SHEET SODA ASH

according to Regulation (EC) No. 2015/830

Revision Date: 10-Dec-2019

Revision Number: 45

Preparation Date: 10-Dec-2019

Internal ID Code: HM001822

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product Name SODA ASH Internal ID Code HM001822

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Buffer

Sector of uses SU2 - Mining, (including offshore industries)

Product category(ies) Not applicable

Process categories PROC4 - Use in batch and other process (synthesis) where opportunity for exposure

arises

PROC15 - Use as a laboratory reagent

PROC8b - Transfer of substance or preparation (charging/discharging) from/to

vessels/large containers at dedicated facilities

Article categories Not applicable

Environmental release ERC2 - Formulation of preparations (mixtures)

category(ies) ERC4 - Industrial use of processing aids in processes and products, not becoming part

of articles

ERC7 - Industrial use of substances in closed systems

Sector of uses SU2a - Mining, (without offshore industries)

SU2b - Offshore industries

SU3 - Industrial uses

Uses advised against Consumer use

1.3. Details of the supplier of the safety data sheet

Halliburton Energy Services

Halliburton House, Howemoss Place

Kirkhill Industrial Estate

Dyce

Aberdeen, AB21 0GN United Kingdom +44 1224 776888

www.halliburton.com

For further information, please contact

E-mail Address: fdunexchem@halliburton.com

1.4. Emergency telephone number +44 8 08 189 0979 / 1-760-476-3961

Global Incident Response Access Code: 334305

Contract Number: 14012

Emergency telephone - Article 45	Emergency telephone - Article 45 - (EC)1272/2008					
Austria	Poison Information Centre (AT): +43-(0)1-406 43 43					
Belgium	Poison center (BE): +32 70 245 245					
Bulgaria	Bulgarian poison centre: +359 2 915-44-09 or +359 2 915-43-46					
Croatia	Centar za kontrolu otrovanja (CKO): (+385 1) 23-48-342 (Poison Control Center (PCC) - Institute for Medical Research and Occupational Health)					
Cyprus	1401; +357 22 88 7171					
Czech Republic	+420 224 919 293; +420 224 915 402					
Denmark	Poison Control Hotline (DK): +45 82 12 12 12					
Estonia	16662 (Local Poison Information Centre); (+372) 626 93 90 (International Poison Information Centre)					

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Europe	112
Finland	Poison Information Centre (FI):+358 9 471 977
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Center Berlin (DE): +49 030 30686 790
Greece	+30 210 779 3777
Hungary	+36 (06) 80 201-199
Latvia	(+371) 67042473 (International number for the National Toxicology Centre)
Ireland	National Poisons Information Centre (IE): +353 1 8379964
Italy	Poison Center, Milan (IT): +39 02 6610 1029
Netherlands	National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
Norway	Poisons Information (NO):+ 47 22 591300
Poland	Poison Control and Information Centre, Warsaw (PL): +48 22 619 66 54; +48 22 619 08 97
Portugal	CIAV - Centro de Informação Antivenenos (Portuguese Poison Centre): + 351 213 303 271
Romania	+40 21 318 36 06

Poison Information Service (ES): +34 91 562 04 20

Poisons Information Center (SV):+46 8 33 12 31

Poison Center: Tel 145; +41 44 251 51 51 Ulusal Zehir Danisma Merkezi (UZEM) :114

Acil Saglik Hizmetleri : 112

NHS Direct (UK): +44 0845 46 47

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Serious Eye Damage/Irritation	Category 2 - H319
-------------------------------	-------------------

2.2. Label Elements

Spain

Sweden Switzerland

Turkey

United Kingdom

Hazard Pictograms



Signal Word: Warning

Hazard Statements:

H319 - Causes serious eye irritation

Precautionary Statements:

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

P280 - Wear protective gloves/eye protection/face protection

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

Contains

SubstancesCAS NumberSodium carbonate497-19-8

2.3. Other Hazards

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

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This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients

3.1. Substances Substance

Substances	EINECS	CAS Number	PERCENT (w/w)	EU - CLP Substance Classification	REACH Reg. No
Sodium carbonate	207-838-8	497-19-8	60 - 100%	Eye Irrit. 2 (H319)	01-2119485498-19

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

SECTION 4: First aid measures

4.1. Description of 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, immediately flush eyes with plenty of water for at least 15

minutes and get medical attention if irritation persists.

Skin Wash with soap and water. Get medical attention if irritation persists.

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

attention.

4.2. Most important symptoms and effects, both acute and delayed

Causes eye irritation. May be harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media

Water fog. carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

5.2. Special hazards arising from the substance or mixture

Special exposure hazards in a fire

Decomposition in fire may produce harmful gases.

5.3. Advice for firefighters

Special protective equipment for firefighters

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

SECTION 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.

See Section 8 for additional information

6.2. Environmental precautions

Prevent from entering sewers, waterways, or low areas.

6.3. Methods and material for containment and cleaning up

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Scoop up and remove.

6.4. Reference to other sections

See Section 8 and 13 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

Store away from acids. Store in a cool, dry location. Product has a shelf life of 60 months.

7.3. Specific end use(s)

Exposure scenario Please refer to the attached Annex for a listing of exposure scenarios.

Other Guidelines No information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Substances	CAS Number	EU	UK	Netherlands	France
Sodium carbonate	497-19-8	Not applicable	Not applicable	Not applicable	Not applicable
Substances	CAS Number	Germany	Spain	Portugal	Finland
Sodium carbonate	497-19-8	Not applicable	Not applicable	Not applicable	Not applicable
Substances	CAS Number	Austria	Ireland	Switzerland	Norway
Sodium carbonate	497-19-8	Not applicable	Not applicable	Not applicable	Not applicable
Substances	CAS Number	Italy	Poland	Hungary	Czech Republic
Sodium carbonate	497-19-8	Not applicable	Not applicable	Not applicable	TWA: 5 mg/m ³

Substances	CAS Number	Denmark	Romania	Croatia	Cyprus
Sodium carbonate	497-19-8	Not applicable	TWA: 1 mg/m ³ STEL: 3 mg/m ³	Not applicable	Not applicable

Derived No Effect Level (DNEL)

Worker

Substances	Long-term	Acute / short	Long-term	Acute / short	Long-term	Acute / short	Long-term	Acute / short	Hazards for
	exposure -	term	exposure -	term	exposure -	term	exposure -	term	the eyes -
	systemic	exposure -	local effects,	exposure -	systemic	exposure -	local effects,	exposure -	local effects
	effects,	systemic	Inhalation	local effects,	effects,	systemic	Dermal	local effects,	
	Inhalation	effects,		Inhalation	Dermal	effects,		Dermal	
		Inhalation				Dermal			
Sodium carbonate	Not available	Not available	10 mg/m ³	Not available	Not available	Not available	Not available	Not available	Not available

General Population

Substances	Long-term	Acute /	Long-term	Acute /	Long-term	Acute /	Long-term	Acute /	Long-term	Acute /	Hazards
	exposure -	short term	exposure -	short term	exposure -	short term	exposure -	short term	exposure -	short term	for the
	systemic	exposure -	local	exposure -	systemic	exposure -	local	exposure -	systemic	exposure -	eyes -
	effects,	systemic	effects,	local	effects,	systemic	effects,	local	effects,	local	local
	Inhalation	effects,	Inhalation	effects,	Dermal	effects,	Dermal	effects,	Oral	effects,	effects
		Inhalation		Inhalation		Dermal		Dermal		Oral	
Sodium	Not	Not	Not	10 mg/m ³	Not	Not	Not	Not	Not	Not	Not
carbonate	available	available	available		available	available	available	available	available	available	available

Predicted No Effect Concentration (PNEC)

No information available.

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8.2. Exposure controls

Engineering Controls Use in a well ventilated area. Localized ventilation should be used to control dust levels. If engineering controls and work practices cannot prevent excessive exposures, the Personal protective equipment

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

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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.

Hand Protection Normal work gloves. **Skin Protection** Normal work coveralls. **Eve Protection** Dust proof goggles. None known. Other Precautions

Environmental Exposure Controls Do not allow material to contaminate ground water system

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State: Powder Color White

No information available Odor: Odorless Odor

> Threshold: Values

Property Remarks/ - Method

pH: 11.5

No data available Freezing Point / Range

Melting Point / Range 851 °C

Pour Point / Range No data available **Boiling Point / Range** No data available Flash Point No data available Flammability (solid, gas) No data available Upper flammability limit No data available Lower flammability limit No data available **Evaporation rate** No data available

Vapor Density

Vapor Pressure No data available No data available

Specific Gravity 2.5

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

Explosive Properties No information available **Oxidizing Properties** No information available

9.2. Other information

105.99 g/mole **Molecular Weight** VOC Content (%) No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Not expected to be reactive.

10.2. Chemical stability

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Stable

10.3. Possibility of hazardous reactions

Will Not Occur

10.4. Conditions to avoid

None anticipated

10.5. Incompatible materials

Strong acids.

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute Toxicity

Inhalation May cause mild respiratory irritation.

Eye Contact Causes eye irritation.

Skin Contact Not irritating to skin in rabbits.

Ingestion May be harmful if swallowed. 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.

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium carbonate	497-19-8	2800 mg/kg (Rat)	>2000 mg/kg (Rabbit)	1.15 mg/L (Rat, 4 hr, aerosol)

Rat = Rat, Rabbit = Rabbit, dust = dust

Substances	CAS Number	Skin corrosion/irritation	
Sodium carbonate	497-19-8	Non-irritating to the skin	
Substances	CAS Number	Serious 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	Respiratory 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	STOT - single exposure	

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	Number	
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	Aspiration hazard
	Number	
Sodium carbonate	497-19-8	Not applicable

SECTION 12: Ecological information

12.1. Toxicity

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Sodium carbonate	497-19-8	EC50 242 mg/L (Nitzschia)	LC50(96h) 300 mg/L (Lepomis macrochirus) LC50 310-1220 mg/L (Pimephales promelas)	No information available	EC50 265 mg/L (Daphnia magna) EC50 (48h) 200 – 227 mg/L (Ceriodaphnia sp.)

growth rate = growth rate, similar substance = similar substance, activated sludge = activated sludge, reproduction = reproduction

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	Bioaccumulation
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

12.5. Results of PBT and vPvB assessment

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).

Substances	PBT and vPvB assessment	
Oubstances	I DI ana vi vo assessinent	
Sodium carbonate	Not applicable	

12.6. Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods
Contaminated Packaging

Bury in a licensed landfill according to federal, state, and local regulations.

Contaminated Packaging Follow all applicable national or local regulations.

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SECTION 14: Transport information

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

ADN

Not restricted **UN Number** UN proper shipping name: Not restricted Not applicable **Packing Group Environmental Hazards:** Not applicable

ADR/RID

UN Number Not restricted UN proper shipping name: Not restricted **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

14.1. UN Number Not restricted

14.2. UN proper shipping name: Not restricted

14.3.

Not applicable 14.4. Packing Group

14.5. Environmental Hazards: Not applicable

14.6. Special Precautions for User None

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

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

International Inventories

US TSCA Inventory All components listed on inventory or are exempt. **Canadian Domestic Substances** All components listed on inventory or are exempt.

List (DSL)

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

Denmark PR No.: 1886764

Norway PR No.: 608149

Germany, Water Endangering

Classes (WGK)

WGK 1: Low hazard to waters.

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Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable. Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

Substances	CAS Number	Seveso III	TA LUFT
Sodium carbonate	497-19-8	Not applicable	Not applicable

Substances	CAS Number	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization
Sodium carbonate	497-19-8	Not applicable	Not applicable

15.2. Chemical safety assessment

Yes

SECTION 16: Other information

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

H319 - Causes serious eye irritation

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

bw - body weight

CAS - Chemical Abstracts Service

CLP - REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Classification,

Labelling and Packaging of substances and mixtures

EC - European Commission

EC10 - Effective Concentration 10%

EC50 - Effective Concentration 50%

EEC - European Economic Community

ErC50 - Effective Concentration growth rate 50%

IBC Code - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

LC50 - Lethal Concentration 50%

LD50 - Lethal Dose 50%

LL0 - Lethal Loading 0%

LL50 - Lethal Loading 50%

MARPOL - International Convention for the Prevention of Pollution from Ships

mg/kg - milligram/kilogram

mg/L - milligram/liter

NIOSH - National Institute for Occupational Safety and Health

NOEC - No Observed Effect Concentration

NTP – National Toxicology Program

OEL – Occupational Exposure Limit

PBT - Persistent Bioaccumulative and Toxic

PC - Chemical Product category

PEL - Permissible Exposure Limit

ppm – parts per million

PROC - Process category

REACH - REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the

Registration, Evaluation, Authorisation and Restriction of Chemicals

STEL - Short Term Exposure Limit

SU - Sector of Use category

Key literature references and sources for data

www.ChemADVISOR.com/

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Revision Note Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 2015/830

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End of Safety Data Sheet