

SAFETY DATA SHEET

Product Trade Name:
BA-50 BUFFERING AGENT

Revision Date:
12-Mar-2015

Revision Number:
9

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product Trade Name:
BA-50 BUFFERING AGENT

Synonyms

None

Chemical Family

Acid

Internal ID Code

HM000100

Recommended use and restrictions on use

Application

Buffer

Uses advised against

No information available

Manufacturer's Name and Contact Details

Manufacturer/Supplier

Halliburton Energy Services
14th Floor, CitiBank Tower, Al-Qutayat Street
Dubai, UAE
Telephone Number : +971 43036666

Additional Information

Prepared By

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

Emergency Telephone Number

1-760-476-3959
Global Incident Response Access Code: 334305
Contract Number: 14012

2. HAZARDS IDENTIFICATION

Classification

Reproductive Toxicity	Category 2 - H361
Acute Aquatic Toxicity	Category 3 - H402

Hazard Pictograms

**Signal Word**

Warning

Hazard Statements

H361 - Suspected of damaging fertility or the unborn child

H402 - Harmful to aquatic life

Precautionary Statements**Prevention**

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P273 - Avoid release to the environment

P280 - Wear protective gloves/protective clothing/eye protection/face protection

Response

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**

Boric acid

CAS Number

10043-35-3

Additional Information

None known

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	CAS Number	PERCENT (w/w)	GHS Classification
Boric acid	10043-35-3	60 - 100%	Repr. 1B (H360) Aquatic Acute 3 (H402)

4. FIRST AID MEASURES**First-aid Measures****Inhalation**

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

Skin

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

Eyes

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

Ingestion

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

Most important symptoms and effects, both acute and delayed

May cause birth defects.

Indication of any immediate medical attention and special treatment needed**Notes to Physician**

Not Applicable

5. FIRE FIGHTING MEASURES

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

Decomposition in fire may produce harmful gases.

Special protective actions for fire-fighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment. Avoid creating and breathing dust.

Environmental Precautions

Prevent from entering sewers, waterways, or low areas.

Methods and material for containment and cleaning up

Scoop up and remove.

Additional Information

See Section 8 and 13 for additional information.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with eyes, skin, or clothing. Avoid creating or inhaling dust.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry location.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

Appropriate engineering controls

Use in a well ventilated area.

Individual protection measures, such as 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

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.

9. PHYSICAL AND CHEMICAL PROPERTIES**Physical State:**

Solid

Color

White

Odor:

Odorless

Odor Threshold:

No information available

pH:

5.1

Specific Gravity

1.84

Freezing Point/Range (°C):

No information available

Pour Point/Range (C):

No information available

Boiling Point/Range (C):

No information available

Flash Point/Range (°C):

No information available

Flash Point Method:

Not determined

Flammability Limits in Air - Lower (%):

No information available

Flammability Limits in Air - Upper (%):

No information available

Autoignition Temperature (°C):

No information available

Evaporation Rate (Butyl Acetate=1):

No information available

Vapor Pressure @ 20 C (mmHg):

No information available

Vapor Density (Air=1):

No information available

Water Solubility

Soluble in water

Decomposition Temperature (C):

No information available

Viscosity, Dynamic @ 20 C (centipoise):

No information available

Viscosity, Kinematic @ 20 C (centistokes):

No information available

Partition Coefficient/n-Octanol/Water:

No information available

Molecular Weight (g/mole):

69.619

10. STABILITY AND REACTIVITY**Reactivity**

Not expected to be reactive.

Chemical Stability

Stable

Possibility of hazardous reactions

Will Not Occur

Conditions to Avoid

None anticipated

Incompatible materials

Strong alkalis. Potassium. Anhydrides.

Hazardous decomposition products

None known.

Additional Guidelines

Not Applicable

11. TOXICOLOGICAL INFORMATION**Information on Toxicological Effects****Acute Toxicity****Inhalation**

May cause mild respiratory irritation.

Eye Contact

May cause eye irritation.

Skin Contact

May cause skin irritation.

Ingestion

May cause headache, dizziness, nausea, vomiting, gastrointestinal irritation and central nervous system depression.

Chronic Effects/Carcinogenicity

Prolonged or repeated exposure may cause reproductive system damage. Prolonged or repeated exposure may cause embryo and fetus toxicity.

> 2 mg/L (rat, 4hrs)

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Boric acid	10043-35-3	>2660 mg/kg-bw (rat)	> 2000 mg/kg (rabbit)	> 2 mg/L (rat, 4 hr, dust)

Substances	CAS Number	Skin corrosion/irritation
Boric acid	10043-35-3	Non-irritating to the skin

Substances	CAS Number	Serious eye damage/irritation
Boric acid	10043-35-3	Non-irritating to rabbit's eye

Substances	CAS Number	Skin Sensitization
Boric acid	10043-35-3	Did not cause sensitization on laboratory animals

Substances	CAS Number	Respiratory Sensitization
Boric acid	10043-35-3	No information available

Substances	CAS Number	Mutagenic Effects
Boric acid	10043-35-3	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.

Substances	CAS Number	Carcinogenic Effects
Boric acid	10043-35-3	Did not show carcinogenic effects in animal experiments

Substances	CAS Number	Reproductive toxicity
Boric acid	10043-35-3	Prolonged or repeated exposure may cause reproductive system damage.

Substances	CAS Number	STOT - single exposure
Boric acid	10043-35-3	No information available

Substances	CAS Number	STOT - repeated exposure
Boric acid	10043-35-3	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	Aspiration hazard
Boric acid	10043-35-3	Not applicable

12. ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity effects Harmful to aquatic organisms

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Boric acid	10043-35-3	EC50 (74.5 h) 52.4 mg/L (Selenastrum capricornutum)	LC50 (96 h) 79.7 mg/L (Pimephales promelas) NOAEC (34 d) 6.4 mg/L (Danio rerio)	No information available	LC50 (48 h) 91 mg/L (Ceriodaphnia dubia) NOAEC (21 d) 10.8 mg/L (Daphnia magna)

Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Boric acid	10043-35-3	The methods for determining biodegradability are not applicable to inorganic substances.

Bioaccumulation potential

Substances	CAS Number	Bioaccumulation
Boric acid	10043-35-3	LogPow -1.09

Mobility in soil

Substances	CAS Number	Mobility
Boric acid	10043-35-3	No information available

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal methods

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

Contaminated Packaging

Follow all applicable national or local regulations.

Other Information

No information available

14. TRANSPORT 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 for User

None

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

15. REGULATORY INFORMATION**Regulatory Information**

This SDS was prepared in accordance with United Nations "Globally Harmonized System of Classification and Labelling of Chemicals (GHS)" and its revisions.

16. OTHER INFORMATION**Key literature references and sources for data**

www.ChemADVISOR.com/

Revision Date:

12-Mar-2015

Revision Note

Update to Format

SECTION:

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End of Safety Data Sheet