B.E.S.T. BOOST

SECTION 1. IDENTIFICATION

Product Identifier B.E.S.T. BOOST
Product Family Propylene carbonate
Recommended Use Drilling Fluid Additive.
Supplier Identifier Beyond Energy Services & Technology Corp., 9608 – 69 Avenue, Clairmont, Alberta, T0H 0W0, 1-866-648-9067
Emergency Phone No. CANUTEC, 613-996-6666 or *666 on a cellular phone (Canada Only), 24 Hours / Day

SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

Classification

Eye irritation - Category 2A

Label Elements

Signal Word:
Warning
Hazard Statement(s):
H319 Causes serious eye irritation.
Precautionary Statement(s):
Prevention:
P264 Wash hands 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 or attention.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Propylene carbonate	108-32-7	90 - 100		

Notes

Concentrations are expressed in % weight/weight.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. Seek medical attention if respiratory irritation or distress continues.

Skin Contact

Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. Seek medical attention if irritation develops or persists.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Seek medical attention if irritation develops or persists.

Ingestion

Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Seek medical attention.

Most Important Symptoms and Effects, Acute and Delayed

If in eyes:
May cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

Water Jet.

Specific Hazards Arising from the Product

In a fire or if heated, a pressure increase will occur and the container may burst.
When mixed with air and exposed to ignition source, vapours can burn in open or explode if confined.

Special Protective Equipment and Precautions for Fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

Do not flush to drain. Prevent material from entering public sewer system or any waterways.

Methods and Materials for Containment and Cleaning Up

Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Flush spill area. Dike and recover contaminated water for appropriate disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid generating vapours or mists. Avoid repeated or prolonged skin contact with product or with contaminated equipment/surfaces.

Conditions for Safe Storage

Store in tightly closed containers. Store in an area that is: well-ventilated, separate from incompatible materials (see Section 10: Stability and Reactivity). Keep away from ignition sources.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

	ACGIH TLV®		OSHA PEL		AIHA WEEL	
Chemical Name	**TWA**	**STEL**	**TWA**	**Ceiling**	**8-hr TWA**	**TWA**
Propylene carbonate	Not established	Not established	Not established	Not established	Not established	Not established

Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air.

Individual Protection Measures

Eye/Face Protection

Do not get in eyes. Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles.

Skin Protection

Chemically resistant gloves should be used. Wear chemical protective clothing e.g. gloves, aprons, boots.

Respiratory Protection

Not normally required if product is used as directed. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Clear colourless liquid.
Odour	Slight
Odour Threshold	Not available
pH	5.5 - 7.5
Melting Point/Freezing Point	Not available (melting); -49 ºC (-56 ºF) (freezing)
Initial Boiling Point/Range	242 - 243 ºC (468 - 469 ºF)
Flash Point	116 ºC (241 ºF) (closed cup)
Evaporation Rate	< 0.01 (n-butyl acetate = 1)
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limit	32.5% (upper); 1.7% (lower)
Vapour Pressure	0.03 mm Hg at 20 ºC (68 ºF)
Vapour Density (air = 1)	1.2
Relative Density (water = 1)	1.206 at 20 ºC (68 ºF)
Solubility	200 g/L (Very soluble) in water
Partition Coefficient, n-Octanol/Water (Log Kow)	-0.48 at 20 ºC (68 ºF)
Auto-ignition Temperature	455 ºC (851 ºF)
Decomposition Temperature	Not available
Viscosity	1.9 mm2/s at 40°C (104°F) (kinematic); 2.76 mPa.s at 20 ºC (68 ºF) (dynamic)

Other Information

Physical State	Liquid
Molecular Weight	102.09 g/mol

SECTION 10. STABILITY AND REACTIVITY

Reactivity

None known.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Heat. Open flames, sparks, static discharge, heat and other ignition sources. Propylene carbonate can decompose at high temperatures to propylene oxide and carbon dioxide causing high pressure rises if not properly vented.

Incompatible Materials

Oxidizing agents (e.g. peroxides), strong oxidizing agents (e.g. perchloric acid), strong acids (e.g. hydrochloric acid), strong bases (e.g. sodium hydroxide), water.

Hazardous Decomposition Products

Oxides of Carbon
Oxides of Nitrogen
Propylene Oxide.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Propylene carbonate	> 1000 mg/m3 (rat) (aerosol)	> 5000 mg/kg (rat)	3000 mg/kg (rabbit)

Skin Corrosion/Irritation

No information was located.

Serious Eye Damage/Irritation

Causes serious eye irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

No information was located.

Skin Absorption

No information was located.

Ingestion

No information was located.

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

Respiratory and/or Skin Sensitization

No information was located for respiratory sensitization. Not a skin sensitizer.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Propylene carbonate	Not Listed	Not designated	Not Listed	Not Listed

Not a carcinogen.

Reproductive Toxicity

Development of Offspring

No information was located.

Sexual Function and Fertility

No information was located.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

Not mutagenic.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Not harmful to aquatic life, based on acute toxicity tests.

Persistence and Degradability

Does not degrade rapidly based on quantitative tests.

Bioaccumulative Potential

This product and its degradation products are not expected to bioaccumulate.

Mobility in Soil

If released to the environment, this product is expected to hydrolyze.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations.

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All intentional components of this product are either on the DSL, the confidential DSL or notifications / import restrictions are in place.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

SDS Prepared By	Product Safety Committee
Phone No.	403-279-8545
Date of Preparation	June 13, 2017
Disclaimer	To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.