



SAFETY DATA SHEET

BIOTERGE AS-40 LIQUID SURFACTANT

Preparation Date: 12/Oct/2018

Version: 2

1. IDENTIFICATION

Product identifier

Product Name BIOTERGE AS-40 LIQUID SURFACTANT

Other means of identification

Synonyms none

Recommended use of the chemical and restrictions on use

Recommended Use Surfactant

Restricted Uses No information available

Supplier Identifier

Voyageur Soap & Candle Co. LTD
Unit 14 - 19257 Enterprise Way
Surrey, B.C., V3S 6J8
Telephone: 1(800) 758-7773

Emergency telephone number

24 Hour Emergency Phone Number (CANUTEC): 1-888-226-8832 (1-888-CAN-UTEC)

2. HAZARD IDENTIFICATION

Hazardous Classification of the substance or mixture

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1

Label elements

Hazard pictograms



Signal Word: Danger

Hazard statements

Causes skin irritation
Causes serious eye damage

Precautionary Statements

Prevention

Wear protective gloves/protective clothing/eye protection/face protection
Wash face, hands and any exposed skin thoroughly after handling

Response

Specific treatment (see first aid instructions on label)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower

Storage

Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

May be harmful if swallowed Very toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable.

Mixture

Chemical Name	CAS No	Weight-%	Synonyms
Water	7732-18-5	50 - 60%	Water
Sodium (C14-16) alpha olefin sulfonate	68439-57-6	30 - 40%	Sodium (C14-16) alpha olefin sulfonate
Olefin	64743-02-8	1-3	Olefin
Sodium sulfate	7757-82-6	1-2	Sodium sulfate
Tetra Decene	1120-36-1	0.1-1	Tetra Decene
Hexa Decene	629-73-2	0.1-1	Hexa Decene

Notes:

The concentration of hazardous ingredients is below the Ingredient Disclosure List.

4. FIRST-AID MEASURES

Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Inhalation

Remove to fresh air.

Eye contact

Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing.

Skin contact

Get immediate medical advice/attention. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Ingestion

Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

Self-protection of the first aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

Most important symptoms and effects, both acute and delayed:

Causes serious eye damage Repeated contact with the skin may cause dermatitis in sensitive individuals. Inhalation of vapors or mists of the product may be irritating to the respiratory system. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. Unlikely to be absorbed through skin. Causes irritation with discomfort, local redness, and possible swelling.

Indication of any immediate medical attention and special treatment needed:

Note to physicians

Treatment based on sound judgment of physician and individual reactions of patient.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing media appropriate for surrounding fire. Water spray or fog. Dry powder. Carbon dioxide (CO₂).

Specific hazards arising from the substance or mixture

Use water spray to cool fire-exposed containers and structures. Isolate and restrict area access.

Hazardous combustion products

May liberate toxic gases.

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up

Prevent further leakage or spillage if safe to do so.

7. HANDLING AND STORAGE

Precautions for safe handling

Corrosive to eyes. Wash thoroughly after handling. Do not breathe product vapor or mist. Handle and open containers with care. Avoid contact with eyes, skin and clothing.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area. Store in accordance with good industrial practices.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters**Exposure Limits**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	Alberta OEL	British Columbia OEL	Ontario	Quebec OEL	Exposure Limit - ACGIH	Immediately Dangerous to Life or Health - IDLH
Water 7732-18-5	Not available	Not available	Not available	Not available	Not available	Not available
Sodium (C14-16) alpha olefin sulfonate 68439-57-6	Not available	Not available	Not available	Not available	Not available	Not available
Olefin 64743-02-8	Not available	Not available	Not available	Not available	Not available	Not available
Sodium sulfate 7757-82-6	Not available	Not available	Not available	Not available	Not available	Not available
Tetra Decene 1120-36-1	Not available	Not available	Not available	Not available	Not available	Not available
Hexa Decene 629-73-2	Not available	Not available	Not available	Not available	Not available	Not available

Consult local authorities for recommended exposure limits

Appropriate engineering controls**Engineering controls**

Local exhaust ventilation as necessary to maintain exposures to within applicable limits.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Safety glasses with side shields or chemical goggles.

Hand protection

Impervious gloves.

Skin and body protection

Not required under normal use. Use overalls if splashing or spraying of this product is anticipated when using large quantities in containers of high concentrations.

Respiratory protection

Avoid inhalation of hot vapors. Use an approved chemical cartridge respirator for mist operations. A full face respirator is needed to prevent eye irritation from hot vapors.

General hygiene considerations

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties**Appearance**

Physical state	Liquid
Color	Clear Amber
Odor	SOAPY
Odor threshold	No information available

PROPERTIES

PROPERTIES	Values	Remarks • Method
pH	8 - 9 (10% in water)	
Melting point / freezing point	-7 °C / 19 °F	
Initial boiling point/boiling range	> 100 °C / 212 °F	None known
Flash point	>93.9 °C / >201 °F	Pensky-Martens Closed Cup
Evaporation rate	<1	
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No data available	None known
Relative vapor density	No data available	None known
Specific Gravity	1.062	
Water solubility	Completely soluble	
Solubility in other solvents	No data available	
Partition coefficient	No data available	
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available.	
Oxidizing properties	No information available.	
Molecular weight	No information available	

VOC Percentage Volatility	No information available
Liquid Density	8.79 lb/gal @ 25C
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity/Chemical Stability

Stable under normal conditions

Possibility of hazardous reactions

No additional remark.

Conditions to avoid

High temperatures.

Incompatible materials

Strong oxidizers.

Hazardous decomposition products

Toxic fumes.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation

Inhalation of vapors or mists of the product may be irritating to the respiratory system.

Eye contact

Causes serious eye damage.

Skin contact

Causes irritation with discomfort, local redness, and possible swelling. Unlikely to be absorbed through skin. Repeated contact with the skin may cause dermatitis in sensitive individuals.

Ingestion

May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Information on toxicological effects

Symptoms

If used in conjunction with hypochlorite bleach, skin-sensitizing "sultones" may be formed. This product contains trace amounts of formaldehyde which could accumulate in the headspace of storage containers. Repeated or prolonged airborne exposure to formaldehyde may be harmful, since formaldehyde has been known to cause nasopharynx tumors in rats at 8 to 15 ppm for prolonged intervals in air.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	2,269.00 mg/kg
ATEmix (dermal)	> 2000 mg/kg

Unknown acute toxicity No information available

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg (Rat)	Not available	Not available
Sodium (C14-16) alpha olefin sulfonate 68439-57-6	= 2220 mg/kg (Rat)	> 740 mg/kg (Rabbit)	Not available
Olefin 64743-02-8	Not available	Not available	Not available
Sodium sulfate 7757-82-6	> 10000 mg/kg (Rat)	> 4 g/kg (Rabbit)	Not available
Tetra Decene 1120-36-1	> 10000 mg/kg (Rat) = 21300 mg/kg (Rat)	> 10000 mg/kg (Rabbit) = 10000 mg/kg (Rabbit) > 2430 mg/kg (Rabbit)	Not available
Hexa Decene 629-73-2	> 10000 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	> 8.5 mg/L (Rat) 1 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation

Repeated contact with the skin may cause dermatitis in sensitive individuals. Causes irritation with discomfort, local redness, and possible swelling. Unlikely to be absorbed through skin.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

No information available.

Germ cell mutagenicity

No information available.

Carcinogenicity

No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Water 7732-18-5	Not available	Not available	Not available	Not available
Sodium (C14-16) alpha olefin sulfonate 68439-57-6	Not available	Not available	Not available	Not available
Olefin 64743-02-8	Not available	Not available	Not available	Not available
Sodium sulfate 7757-82-6	Not available	Not available	Not available	Not available
Tetra Decene 1120-36-1	Not available	Not available	Not available	Not available
Hexa Decene 629-73-2	Not available	Not available	Not available	Not available

Reproductive toxicity

No information available.

Specific target organ systemic toxicity - single exposure

No information available.

Specific target organ systemic toxicity - repeated exposure

No information available.

Aspiration hazard

No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Ecotoxicity - Freshwater Algae Data	Ecotoxicity - Fish Species Data	Toxicity to microorganisms	Crustacea
Water 7732-18-5	Not available	Not available	Not available	Not available
Sodium (C14-16) alpha olefin sulfonate 68439-57-6	Not available	1.0 - 10.0 mg/L LC50 (Brachydanio rerio) 96 h static 12.2 mg/L LC50 (Brachydanio rerio) 96 h semi-static	Not available	Not available
Olefin 64743-02-8	Not available	Not available	Not available	Not available
Sodium sulfate 7757-82-6	Not available	13500 - 14500 mg/L LC50 (Pimephales promelas) 96 h 3040 - 4380 mg/L LC50 (Lepomis macrochirus) 96 h static 13500 mg/L LC50 (Lepomis macrochirus) 96 h 6800 mg/L LC50 (Pimephales promelas) 96 h static	Not available	EC50: =2564mg/L (48h, Daphnia magna) EC50: =630mg/L (96h, Daphnia magna)
Tetra Decene 1120-36-1	22 - 24 mg/L EC50 Pseudokirchneriella subcapitata 96 h	1 - 3.2 mg/L LC50 (Brachydanio rerio) 96 h static 10.0 - 32.0 mg/L LC50 (Poecilia reticulata) 96 h static 0.39 mg/L LC50 (Oncorhynchus mykiss) 96 h flow-through 1.06 mg/L LC50 (Pimephales promelas) 96 h flow-through	Not available	LC50: =0.68mg/L (96h, Daphnia magna) EC50: =0.74mg/L (48h, Daphnia magna)
Hexa Decene 629-73-2	Not available	Not available	Not available	Not available

Persistence and degradability No information available.

Bioaccumulation No information available.

Chemical Name	Partition coefficient
Water 7732-18-5	Not available
Sodium (C14-16) alpha olefin sulfonate 68439-57-6	Not available
Olefin 64743-02-8	Not available
Sodium sulfate 7757-82-6	Not available
Tetra Decene 1120-36-1	Not available
Hexa Decene 629-73-2	Not available

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Do not reuse empty containers.

14. TRANSPORT INFORMATION

TDG (Canada):

UN Number	Not applicable
Shipping name	Not regulated
Class	Not applicable
Packing Group	Not applicable
Marine pollutant	Not available.

DOT (U.S.)

UN Number	Not applicable
Shipping name	Not regulated
Class	Not applicable
Packing Group	Not applicable
Marine pollutant	Not available

15. REGULATORY INFORMATION

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

U.S. Regulatory Rules

Chemical Name	CERCLA/SARA - Section 302:	SARA (311, 312) Hazard Class:	CERCLA/SARA - Section 313:
Water - 7732-18-5	Not Listed	Not Listed	Not Listed
Sodium (C14-16) alpha olefin sulfonate - 68439-57-6	Not Listed	Not Listed	Not Listed
Olefin - 64743-02-8	Not Listed	Not Listed	Not Listed
Sodium sulfate - 7757-82-6	Not Listed	Not Listed	Not Listed
Tetra Decene - 1120-36-1	Not Listed	Not Listed	Not Listed
Hexa Decene - 629-73-2	Not Listed	Not Listed	Not Listed

International Inventories

TSCA	Complies
DSL/NDSL	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA:	Health hazards 2	Flammability 0	Instability 0	Physical and chemical properties - Personal protection X
HMIS:	Health hazards 2	Flammability 0	Physical hazards 0	

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Preparation Date: 12/Oct/2018**Revision Date:** 12/Oct/2018**Disclaimer****NOTICE TO READER:**

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End of Safety Data Sheet