SAFETY DATA SHEET



1. Identification

Product identifier	Marine Biodegradable Multipurpose Lubricant
Product Code	99705
SDS number	6806
Other means of identification	Not available.
Recommended use	Not available.
Recommended restrictions	None known.
Manufacturer/Importer/Suppl	ier/Distributor information
Manufacturer	
	Bel-Ray Company, LLC
	P.O. Box 526
	Farmingdale, NJ 07727
	United States of America

+1 732 938 2421 CHEMTREC: 800-424-9300 (USA) CHEMTREC: +1 703-527-3887 (outside USA - call collect)

2. Hazard(s) identification

Physical hazards	Not classified.		
Health hazards	Acute toxicity, inhalation	Category 3	
	Specific target organ toxicity, repeated exposure	Category 1	
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 3	
	Hazardous to the aquatic environment, long-term hazard	Category 3	
OSHA defined hazards	Not classified.		
Label elements			
Hazard symbol	None.		
Signal word	None.		
Hazard statement	Harmful to aquatic life. Harmful to aquatic life with long lasting effects.		
Precautionary statement			
Prevention	Avoid release to the environment.		
Response	Wash hands after handling.		
Storage	Store away from incompatible materials.		
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.		
Hazard(s) not otherwise classified (HNOC)	None known.		
Supplemental information	None.		

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
2-butoxyethanol		111-76-2	1 - < 3
Butylhydroxytoluene		128-37-0	< 1
Other components below re	portable levels		90 - 100

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures	
Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Do not induce vomiting. Get medical attention if symptoms occur. Never give liquid to an unconscious person.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).		
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.		
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.		
Special protective equipment and precautions for firefighters	Wear suitable protective equipment. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.		
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.		

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	This product is miscible in water.
	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains. Following product recovery, flush area with water.
	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.
7. Handling and storage	
Precautions for safe handling	Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

Components	Туре				
2-butoxyethanol (CAS 111-76-2)	PEL		2	40 mg/m3	
			5	0 ppm	
US. ACGIH Threshold Lin Components	hit Values Type	9	v	alue	Form
2-butoxyethanol (CAS 111-76-2)	TWA		2	0 ppm	
Butylhydroxytoluene (CAS 128-37-0)	TWA		2	mg/m3	Inhalable fraction and vapor.
US. NIOSH: Pocket Guide Components	e to Chemical Hazard Type		v	alue	
2-butoxyethanol (CAS 111-76-2)	TWA		2	4 mg/m3	
Butylhydroxytoluene (CAS 128-37-0)	TWA			ppm 0 mg/m3	
ological limit values					
ACGIH Biological Exposu Components	re Indices Value	Determinant	Specimen	Sampling T	ime
2-butoxyethanol (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine) *	
* - For sampling details, plea	ase see the source docu	ument.			
posure guidelines					
US - California OELs: Skin	-				
2-butoxyethanol (CAS 1 US - Minnesota Haz Subs	-		absorbed thro	ugh the skin.	
2-butoxyethanol (CAS 1 US - Tennessee OELs: Sk	•	Skin de	signation appli	es.	
2-butoxyethanol (CAS 1 US NIOSH Pocket Guide			absorbed thro n	ugh the skin.	
2-butoxyethanol (CAS 1 US. OSHA Table Z-1 Limit			absorbed thro	ugh the skin.	
2-butoxyethanol (CAS 1			absorbed thro	ugh the skin.	
propriate engineering htrols	be matched to conc engineering control	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.			
dividual protection measur Eye/face protection	res, such as personal Wear safety glasses	• • •			
Skin protection Hand protection	Wear appropriate cl	hemical resistant gl	oves.		
Other	Wear suitable prote	ctive clothing.			
Respiratory protection	In case of insufficie	•	suitable respir	atory equipment	t.
Thermal hazards	Wear appropriate th			• • •	
neral hygiene nsiderations	Always observe goo	od personal hygiene ing, and/or smokin	measures, suc	h as washing af	ter handling the material and and protective equipment

9. Physical and chemical properties

9. Physical and chemical	proper ries
Appearance	Oily. Liquid.
Physical state	Liquid.
Form	Liquid.
Color	Amber.
Odor	Mild.
Odor threshold	Not available.
рН	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	335.12 °F (168.4 °C)
Flash point	239.0 °F (115.0 °C) Pensky-Martens Closed Cup
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or e	•
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	1.17 hPa estimated
Density	896.00 kg/m ³
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Negligible
Solubility (other)	Oil
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	7.31 cSt
Viscosity temperature	104 °F (40 °C)
Other information	
Flammability class	Combustible IIIB estimated
Flash point class	Combustible IIIA
Percent volatile	< 3 %
Pour point	-0.4 °F (-18 °C)
Specific gravity	0.9
VOC	< 3 %

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.

11. Toxicological information

Information on likely routes of	f exposure		
Inhalation	Prolonged inhalation may be harmful.		
Skin contact	2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.		
Eye contact	Direct contact with eyes may cause temporary irritation.		
Ingestion	Expected to be a low ingestion hazard.		
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation.		

Information on toxicological effects

Acute toxicity

Causes skin and eye irritation. Respiratory tract irritation. Causes skin irritation.

Product	Species	Test Results
Marine Biodegradable Multi	purpose Lubricant	
<u>Acute</u>		
Dermal		
LD50	Rabbit	9662 mg/kg estimated
Inhalation		
LC50	Mouse	17500 ppm, 7 Hours estimated
	Rat	11250 ppm, 4 Hours estimated
Oral		
LD50	Guinea pig	30 g/kg estimated
	Mouse	30 g/kg estimated
	Rabbit	8 g/kg estimated
	Rat	19033 mg/kg estimated
Components	Species	Test Results
2-butoxyethanol (CAS 111-	76-2)	
<u>Acute</u>		
Dermal		
LD50	Rabbit	400 mg/kg
Inhalation		
LC50	Mouse	700 ppm, 7 Hours
	Rat	450 ppm, 4 Hours
Oral		
LD50	Guinea pig	1.2 g/kg
	Mouse	1.2 g/kg
	Rabbit	0.32 g/kg
	Rat	560 mg/kg
Sutylhydroxytoluene (CAS ⁻	128-37-0)	
Acute		
Oral		
LD50	Guinea pig	10700 mg/kg
	Mouse	1040 mg/kg
	Rat	890 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Based on available data, the c	lassification criteria are not met.		
Serious eye damage/eye irritation	Based on available data, the c	lassification criteria are not met.		
Respiratory or skin sensitization	on			
Respiratory sensitization	Based on available data, the c	Based on available data, the classification criteria are not met.		
Skin sensitization	Not applicable.			
Germ cell mutagenicity	Based on available data, the c	Based on available data, the classification criteria are not met.		
Carcinogenicity	Based on available data, the c	Based on available data, the classification criteria are not met.		
IARC Monographs. Overall	Evaluation of Carcinogenici	ty		
2-BUTOXYETHANOL (CAS BUTYLATED HYDROXYTC	5 111-76-2) DLUENE (BHT) (CAS 128-37-0)	3 Not classifiable as to carcinogenicity to humans.3 Not classifiable as to carcinogenicity to humans.		
Reproductive toxicity	Based on available data, the classification criteria are not met.			
Specific target organ toxicity - single exposure	Based on available data, the classification criteria are not met.			
Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.			
Aspiration hazard	Not an aspiration hazard.			
Chronic effects	May be harmful if absorbed through skin. Prolonged inhalation may be harmful.			
	3	brbed through the skin in toxic amounts if contact is repeated and e not been observed in humans.		

12. Ecological information

Ecotoxicity	Harmful to	aquatic life with long lasting effects.			
Product		Species	Test Results		
Marine Biodegradable Multip	urpose Lubrica	nt			
Aquatic					
Crustacea	EC50	Daphnia	480 mg/l, 48 hours estimated		
Fish	LC50	Fish	68500 mg/l, 96 hours estimated		
Components		Species	Test Results		
2-butoxyethanol (CAS 111-7	6-2)				
Aquatic					
Fish	LC50	Inland silverside (Menidia beryllina)	1250 mg/l, 96 hours		
Butylhydroxytoluene (CAS 12	28-37-0)				
Aquatic					
Crustacea	EC50	Water flea (Daphnia pulex)	1.44 mg/l, 48 hours		
* Estimates for product may	be based on a	dditional component data not shown.			
Persistence and degradability	No data is a	available on the degradability of this produc	ot.		
Bioaccumulative potential	No data ava	No data available.			
Partition coefficient n-oc	tanol / water				
2-butoxyethanol		0.83			
Mobility in soil	No data ava	ailable.			
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.				

13. Disposal considerations

its container must b sewers/water suppli	or dispose in sealed containers at licensed waste disposal site. This material and e disposed of as hazardous waste. Do not allow this material to drain into es. Do not contaminate ponds, waterways or ditches with chemical or used f contents/container in accordance with local/regional/national/international
---------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

ocal disposal regulations	Dispose in accordance with all applicable regulations.		
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.		
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some produces. This material and its container must be disposed of in a safe manner (see: Disposal instructions).		
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.		
14. Transport information	n		
DOT			
Not regulated as dangerous go	oods.		
ΙΑΤΑ			
Not regulated as dangerous go	oods.		
IMDG			
Not regulated as dangerous go	oods.		
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not established.		
15. Regulatory information	on		
US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.		
CERCLA Hazardous Substa	nce List (40 CFR 302.4))	
2-butoxyethanol (CAS 111	-76-2)	Listed.	
Superfund Amendments and Re Hazard categories	eauthorization Act of 1 Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No		
SARA 302 Extremely hazar Not listed.	dous substance		
SARA 311/312 Hazardous chemical	No		
SARA 313 (TRI reporting) Chemical name		CAS number	% by wt.
2-butoxyethanol		111-76-2	1 - < 3
Other federal regulations	Net regulated		
Safe Drinking Water Act (SDWA)	Not regulated.		

2-butoxyethanol (CAS 111-76-2)

US. Massachusetts RTK - Substance List

2-butoxyethanol (CAS 111-76-2) Butylhydroxytoluene (CAS 128-37-0)

US. New Jersey Worker and Community Right-to-Know Act

2-butoxyethanol (CAS 111-76-2) Butylhydroxytoluene (CAS 128-37-0)

US. Pennsylvania Worker and Community Right-to-Know Law

2-butoxyethanol (CAS 111-76-2) Butylhydroxytoluene (CAS 128-37-0)

US. Rhode Island RTK

2-butoxyethanol (CAS 111-76-2)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	03-29-2016
Revision date	05-20-2016
Version #	4.0
Disclaimer	Bel-Ray Company, LLC cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.