

contains less than 3% Dimethyl Sulfoxide (DMSO)

### SAFETY DATA SHEET

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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision Date: 10/25/2018 SDS Revision: 1.0 NZ DISTRIBUTOR 1. PRODUCT & COMPANY IDENTIFICATION Steve's Wholesale Ltd. Units 5 - 7 / 408 11 Product Name The Esplanade BORE SCRUBBER BORE CLEANER AEROSOL Island Bay Wellington 6023 1.2 Chemical Name Aerosol team@steveswholesale.nz 1.3 Synonyms 33640 Emergency Contact: Steve Collings 1.4 Trade Names: Bore Scrubber Bore Cleaner Aerosol 0800 303 303 Product Use: 1.5 Aerosol Bore Cleaner 0274 905 708 Poison Control 0800 POISON (0800 764 Distributor's Name: 1.6 Birchwood Casey, LLC 766) Distributor's Address: 3260 Winpark Drive, New Hope, MN., 55427 USA 1.7 1.8 Emergency Phone: ChemTrec +1 (800) 424-9300 / +1 (703) 527-3887 or Poison Control Center +1 (866) 291-7152 +1 (952) 388-6717 1.9 Business Phone / Fax: 2. HAZARDS IDENTIFICATION 2.1 Hazard Identification: This product is classified as a hazardous substance and as dangerous goods according to the classification criteria of [NOHSC: 1088 (2004)] and ADG Code (Australia). DANGER! FLAMMABLE AEROSOL. PRESSURIZED CONTAINER MAY BURST IF HEATED. MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS. CAUSES SKIN IRRITATION. CAUSES SERIOUS EYE IRRITATION. MAY **CAUSE DROWSINESS OR DIZZINESS.** Classification: Aerosol 2; Flam. Liq. 3; Asp. Tox. 1; Skin Sens.2; Eye Irrit. 2. 2.2 Label Elements: Hazard Statements (H): H223 - Flammable aerosol. H229 - Pressurized container may burst if heated. H304 - May be fatal if swallowed and enters airways. H315 - Causes skin irritation. H319 - Causes serious eye irritation. Precautionary Statements (P): P210 - Keep away from heat, hot surface, sparks, open flames and other ignition sources. No smoking. P211 – Do not spray on an open flame or other ignition P251 – Do not pierce or burn, even after use. P261 – Avoid breathing fume/gas/mist/vapors/spray. P264 – Wash thoroughly with soap and water after handling. P270 – Do not eat, drink or smoke when using this product. P271 - Only use outdoors or in a wellventilated area. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P301+P312 - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. P331 - Do NOT induce vomiting. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P321 -Specific treatment - See Section 4 of this Safety Data Sheet. P332+P313 - If skin irritation occurs: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P304+P340 - IF INHALED: Remover person to fresh air and keep comfortable for breathing. P312 - Call a POISON CENTER/doctor if you feel unwell. 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. P403+P235 - Store in a well-ventilated place. Keep cool. P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °F (122 °F). P405 - Store locked up. P501 -Dispose of contents/container to licenses treatment, storage and disposal facility (TSDF) 2.3 Other Warnings: KEEP OUT OF REACH OF CHILDREN. 3. COMPOSITION & INGREDIENT INFORMATION EXPOSURE LIMITS IN AIR (mg/m³) ACGIH NOHSC OSHA ppm ppm ppm ES-ES-ES-CHEMICAL NAME(S) CAS No. RTECS No. EINECS No. STEL TWA STEL PEAK PEL STEL IDLH OTHER 34590-94-8 600 252-104-2 100 JM1575000 < 48 100 150 50 308 NF NA DIPROPYLENE GLYCOL MONOMETHYL ETHER OA5500000 230-366-4 < 20 200 NA NF NF NF 100 NA NA SKIN 8008-20-6 KEROSENE (PETROLEUM) Asp. Tox.1; H304 200-827-9 74-98-6 TX2275000 < 11 1000 NA 1000 NF NF 1000 NA 2100 **PROPANE** Flam. Gas 1; Press. Gas; H220 204-007-1 < 10 NA NA NA 112-80-1 RG2275000 NA NF NF NF NA OLEIC ACID 106-97-8 EJ4200000 203-448-7 < 10 1000 900 800 1900 NF NA NA 1900 BUTANE Press. Gas; Flam. Gas 1; H220 200-338-0 57-55-6 TY2000000 ۱< ۸ NΑ NA (150) 474 NF NA NA NA (10) WEEL PROPYLENE GLYCOL Skin Irrit. 3; Eye Irrit. 2; H316, H320 NA lna < 4 NA NA NF NF NF NA NA NA NA OXYGENATED HYDROCARBONS 64742-53-6 NA 265-156-6 < 4 (5) NA (5) NF NF (5) 10 NA OIL MIST NAPHTHENIC PETROLEUM OIL\* Asp. Tox.1; H304 141-43-5 KJ5775000 205-483-3 NA NF 3 NIOSH MONOETHANOLAMINE Acute Toxicity-Oral 4; Acute Toxicity-Dermal 4; Skin Corrosion 1B; Acute Toxicity-Inhalation 4; H302, H312, H314, H332



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			4. FIRST AID MEASURES			
4.1	First Aid:	Ingestion:	DO NOT INDUCE VOMITING. Contact the nearest Poison number for assistance and instructions. Seek immediate vomiting occurs spontaneously, keep victim's head lowered	medical attention. Do not induce vomiting.		
		Eyes:	If product gets in the eyes, flush eyes thoroughly with copholding eyelid(s) open to ensure complete flushing. Rim Remove contact lenses, if present and easy to do. Continuation	pious amounts of water for at least 15 minutes use cautiously with water for several minutes		
		Skin:	If irritation occurs & product is on the skin, rinse thoroughly washing of the affected area with plenty of soap and wate footwear and wash thoroughly before reuse. If irritation, reimmediately.	r. Remove all contaminated clothing, including		
		Inhalation:	Remove victim to fresh air at once. Under extreme c respiration. Seek immediate medical attention.			
4.2	Effects of Exposure:	Ingestion:	If product is swallowed, may cause nausea, vomiting depression.	·		
		Eyes:	Moderately irritating to the eyes. The vapor is discomforti include redness, itching, irritation and watering.			
		Skin:	May be irritating to skin, especially after prolonged contact (e.g., rashes, welts, dermatitis) upon prolonged or repeated	l exposure.		
		Inhalation:	Vapors of this product may be moderately irritating to the system. Symptoms of overexposure can include cough breathing. Inhalation of concentrated vapors can cau drowsiness, dizziness, headaches, nausea). Odor may gimay occur. The dried film of this product may become grinding.	ing, wheezing, nasal congestion, and difficult use central nervous system depression (e.g ive some warning of exposure, but odor fatigu		
4.3	Symptoms of Overexposure:	Symptoms of skin overexposure may include redness, itching, and irritation of affected areas. Prolonged or repeated contact may result in defatting and drying of the skin which may result in dermatitis. Overexposure in eyes may cause redness, itching and watering. Symptoms of inhalation may be evidenced by headache, dizziness, nausea and symptoms of intoxication. In extreme cases, unconsciousness and death.				
1.4	Acute Health Effects:	Moderate in	ritation to eyes and skin near affected areas. Additiona dizziness, headaches and nausea.			
4.5	Chronic Health Effects:	The materia	I may accentuate any pre-existing dermatitis condition. Inha al nervous system depression and may be associated with ca			
4.6	Target Organs:	Eyes, Skin,		•		
4.7	Medical Conditions Aggravated by Exposure:					
				FLAMMABILITY 3 PHYSICAL HAZARDS 0 PROTECTIVE EQUIPMENT E		
				EYES SKIN LUNGS		
	I.			2120 31411 201100		
			5. FIREFIGHTING MEASURES			
5.1	Fire & Explosion Hazards:		FLAMMABLE LIQUID AND VAPOR! Keep away from heat o container closed.	, lit cigarettes, sparks & open		
5.2	Extinguishing Methods:		(if permitted), Dry Chemical, Foam, as authorized.			
5.3	Firefighting Procedures:	decompose source of ig	t is a Class IB flammable liquid. When involved in a fire, this to produce carbon oxides. Vapors of this product are heavienition and flash back to a leaking or open container.  Inders should wear eye protection. Structural firefighters	er than air and may travel to a		
			quipment. Use a water spray or fog to reduce or direct actually extinguishing a fire involving this product.	vapors. Water may not be		
			6. ACCIDENTAL RELEASE MEASURI	FS		
5.1	Spills:		ning any spill or leak, individuals involved in spill cleanu			
		ventilation (cand place in	<u>oills</u> (e.g., <1 gallon) wear appropriate personal protective open doors and windows) and secure all sources of ignition. It of appropriate closed container(s) for disposal. Dispose clations. Wash all affected areas and outside of container with	Remove spilled material with absorbent materi of properly in accordance with local, state ar		
		contaminate	d clothing and wash thoroughly before reuse.			



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		7. HANDLING	& STO	ORAG	F INF	)RMA	TION				
7.1	Work & Hygiene Practices:	Avoid prolonged contact with thi ventilated location (e.g., local exh	s materia	al. Avoi ilation, fa	d breathin ans). Wasl	g the va	pors gene d skin tho	roughly w	ith plenty	of soap	& water after
7.2	Storage & Handling:	Use and store in a cool, dry, well heat, open flames, sparks, and Section 10. Do not store in damanot in use. Open slowly on a letherefore, empty containers should	sing this product. If necessary, use a moisturizer after washing. Do not eat, drink, or smoke while handling this product. Itse and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans). Keep away from excessive eat, open flames, sparks, and other possible sources of ignition. Keep away from incompatible materials listed in section 10. Do not store in damaged or unmarked containers or storage devices. Keep containers securely closed when ot in use. Open slowly on a level, stable surface. Empty containers may contain residual amounts of this product; herefore, empty containers should be handled with care. As a precaution against exposure to the eyes, nose, throat and face, this product should not be stored higher than waist level. Keep away from children at all times!								
7.3	Special Precautions:	Do not store where temperatures unattended. Clean all spills prom	s can ex								hazard if left
		8. EXPOSURE CONT	ROLS	& PE	RSON	AL PF	ROTEC	TION			
8.1	Exposure Limits:			GIH		NOHSC			OSHA		OTHER
	ppm (mg/m³)	CHEMICAL NAME(S)	TLV	STEL	ES-TWA	ES- STEL	ES- PEAK	PEL	STEL	IDLH	
		DIPROPYLENE GLYCOL MONOMETHYL ETHER	100	150	100	NF	NF	100	150	NA	
		KEROSENE (PETROLEUM)	200	NA	NF	NF	NF	100	NA	NA	SKIN
		PROPANE	1000	NA	1000	NF	NF	1000	NA	2100	
		BUTANE PROPYLENE GLYCOL	1000 NA	900 NA	800 (150)	1900 474	NF NF	NA NA	NA NA	1900 NA	(10) WEEL
		NAPHTHENIC PETROLEUM OIL	(5)	NA NA	(5)	NF	NF	(5)	10	NA NA	OIL MIST
		MONOETHANOLAMINE	3	NA	3	NF	NF	3	NA	30	3 NIOSH
8.2	Ventilation & Engineering Controls:	Use local or general exhaust ven handling of this product. Ensure a station).		effective							ated from the
8.3	Respiratory Protection:	No special respiratory protection is required under typical circumstances of use or handling. In instances where vapors or sprays of this product are generated, and respiratory protection is needed, use only protection authorized by 29 CFR §1910.134, applicable U.S. State regulations, or the Canadian CAS Standard Z94.4-93 and applicable standards of Canadian Provinces, EC member States, or Australia.									
8.4	Eye Protection:	Wear protective eyewear (e.g., sa Always use protective eyewear w soft lenses may absorb and conce	hen clea	ıning spi						oduct. nzard;	
8.5	Hand Protection:	If anticipated that prolonged & reprubber gloves for routine industrappropriate standards of Canada,	oeated sk ial use.	in conta	sary, refe						
8.6	Body Protection:	No special body protection is req refer to appropriate standards of C	uired und	der typica	al circumst				If neces	ssary,	
		9. PHYSICAL	& CH	EMIC.	AL PRO	OPER	TIES				
9.1	Appearance:	Aerosol yellow-like liquid									
9.2	Odor:	Slight kerosene odor									
9.3	Odor Threshold:	NA									
9.4	pH:	NA									
9.5	Melting Point/Freezing Point:	NA									
9.6	Initial Boiling Point/Boiling Range:	- 42.2 to 133.3 °C (- 44 to - 208 °F	=)								
9.7	Flashpoint:	- 104.4 °C (- 156 °F), based on pr	opellant								
9.8	Upper/Lower Flammability Limits:	UEL 15% / LEL 1.9%	•								
9.9	Vapor Pressure:	50 psig									
9.10	Vapor Density:	> 1 (Air = 1)									
9.11	Relative Density:	< 1									
9.12	Solubility:	Negligible									
9.13	Partition Coefficient (log Pow):	NA									
9.14	Autoignition Temperature:	NA									
9.15	Decomposition Temperature:	NA									
9.16	Viscosity:	NA									
9.17	Other Information:	Percent volatile (vol) 90%									



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		10. STABILITY & REACTIVITY				
10.1	Stability:	Relatively stable under ambient conditions when stored properly.				
10.2	Hazardous Decomposition Products:	If exposed to extremely high temperatures, products of thermal decomposition may include irritating vapors and toxic gases (e.g., oxides of carbon & nitrogen).				
10.3	Hazardous Polymerization:	Will not occur.				
10.4	Conditions to Avoid:	Exposure or contact to extreme temperatures, incompatible chemicals, strong light sources, sparks, flame.				
10.5	Incompatible Substances:	Strong oxidizers, peroxides or strong acids. Heat, sparks, and flames.				
		44 TOVICOLOCICAL INFORMATION				
11.1	Routes of Entry:	11. TOXICOLOGICAL INFORMATION  Inhalation: YES   Absorption: YES   Ingestion: YES				
11.2	Toxicity Data:	Inhalation: YES   Absorption: YES   Ingestion: YES   YES   This product has NOT been tested on animals to obtain toxicology data. Toxicology data, found in scientific literature, is				
11.2	Totally Edd.	available for some of the components of the product and is presented below. Based on animal test results for similar products and materials (available from scientific literature), the acute toxicity of this product is expected to be: LD <sub>50</sub> , (oral, rat): 5,130 mg/kg (Dipropylene Glycol Monomethyl Ether); 1,720 mg/kg (mono-Ethanolamine)  Mineral Oils – LD <sub>50</sub> (oral, rat) > 5,000 mg/kg; 2-Ethylhexanol: LC <sub>50</sub> (inh, rat, 1h): 2.7 mg/L, LD <sub>50</sub> (oral, rat): > 2,000 mg/kg  Hydrotreated Light Naphthenic Petroleum Distillates (Highly Refined): LD <sub>50</sub> , (oral, rat) > 5 gm/kg				
11.3	Acute Toxicity:	Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipoid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects. Moderate irritation to eyes and skin near affected areas. Additionally, high concentrations of vapors can cause drowsiness, dizziness, headaches and nausea.				
11.4	Chronic Toxicity:	Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne.				
11.5	Suspected Carcinogen:	Kerosene (Petroleum): AGIH A3 (confirmed animal carcinogen with unknown relevance to humans)  This product contains a hydrotreated mineral oil with less than 3% DMSO extract as measured by IP 346 and is not considered a carcinogen. This product does not contain any chemicals known to the State of California to cause cancer or other reproductive harm. For more information go to <a href="https://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> .				
11.6	Reproductive Toxicity:	This product is not reported to cause reproductive toxicity in humans.				
	Mutagenicity:	This product is not reported to produce mutagenic effects in humans.				
	Embryotoxicity:	This product is not reported to produce embryotoxic effects in humans.				
	Teratogenicity:	This product is not reported to grounde error young effects in humans.  This product is not reported to cause teratogenic effects in humans.				
	Reproductive Toxicity:	This product is not reported to cause reproductive effects in humans.				
11.7	Irritancy of Product:	See Section 4.2				
11.8	Biological Exposure Indices:	NE NE				
11.9	Physician Recommendations:	Treat symptomatically.				
		12. ECOLOGICAL INFORMATION				
12.1	Environmental Stability:	Analysis for ecological effects has not been conducted on this product. However, if spilled, this product and any contaminated soil or water may be harmful to human, animal, and aquatic life. Also, the coating action associated with petroleum and petroleum products can be harmful or fatal to aquatic life and waterfowl.				
12.2	Effects on Plants & Animals:	There are no specific data available for this product. An environmental fate analysis has not been conducted on this				
		specific product. However, plants and animals may experience harmful or fatal effects when coated with petroleum-based products.				
12.3	Effects on Aquatic Life:	specific product. However, plants and animals may experience harmful or fatal effects when coated with petroleum-				
		specific product. However, plants and animals may experience harmful or fatal effects when coated with petroleum-based products.   Petroleum-based (mineral) lube oils will normally float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway can result in a loss of marine life or create an anaerobic environment. This material contains phosphorus which is a controlled element for disposal in effluent waters in most sections of North America. Phosphorus is known to enhance the formation of algae. Severe algae growth can reduce oxygen content in the water possibly below levels necessary to support marine life.				
		specific product. However, plants and animals may experience harmful or fatal effects when coated with petroleum-based products.   Petroleum-based (mineral) lube oils will normally float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway can result in a loss of marine life or create an anaerobic environment. This material contains phosphorus which is a controlled element for disposal in effluent waters in most sections of North America. Phosphorus is known to enhance the formation of algae. Severe algae growth can				



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SDS Revision: 1.0

SDS Revision Date: 10/25/2018

		14. TRANSPORTATION INFORMATION	
The I	pasic description (ID Number,	proper shipping name, hazard class & division, packing group) is shown for each mode of transpor	tation. Additional descriptive information
may 4.1	be required by 49 CFR, IATA 49 CFR (GND):	/ICAO, IMDG and the CTDGR.	1.4
14.1	49 CFR (GND):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L); or	
4.0	IATA (AID)+	CONSUMER COMMODITY, ORM-D (IP VOL ≤ 1.0 L) – until 12/31/20	<b>Y</b>
4.2	IATA (AIR)*:	UN1950, AEROSOLS, FLAMMABLE, 2.1 (LTD QTY, IP VOL ≤ 1.0 L); or	<b>△♦</b>
		CONSUMER COMMODITY, 9, ID8000 (IP VOL ≤ 0.5 L)	or V
4.3	IMDG (OCN):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)	$\Diamond$
14.4	TDGR (Canadian GND):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)	<b>\$</b>
14.5	ADR/RID (EU):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)	$\Diamond$
4.6	SCT (MEXICO):	UN1950, AEROSOLES, 2.1 (CANT. LTDA., IP VOL ≤ 1.0 L)	$\Diamond$
14.7	ADGR (AUS):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)	<b>\$</b>
15.1	SARA Reporting Requirements:	<b>15. REGULATORY INFORMATION</b> HSR0025  This product does not contain a substance subject to SARA Title III, Section 313 repo	
15.2	SARA TPQ:	There are no specific Threshold Planning Quantities for the components of this produ	ct.
15.3	TSCA Inventory Status:	The components of this product are listed on the TSCA Inventory.	
15.4	CERCLA Reportable Quantity:	NA	
15.5	Other Federal Requirements:	NA NA	
15.6	Other Canadian Regulations:	This product has been classified according to the hazard criteria of the CPR a contains all of the information required by the CPR. The components of this product the DSL/NDSL. None of the components of this product are listed on the Priorities St WHMIS Class B3 (combustible liquids). WHMIS Class D2B (material causing other to	et are listed on lubstances List.
15.7	State Regulatory Information:	Kerosene (Petroleum) is found n the following state criteria lists: MA, NJ and PA.  Propane is found on the following state criteria list: MA, MN, PA, and WA.	
		Propylene Glycol is found on the following state criteria lists: MN, and PA.	
		<u>Dipropylene Glycol Monomethyl Ether</u> is found on the following state criteria lists: FL,	
		No other ingredients in this product, present in a concentration of 1.0% or greater, are criteria lists: California Proposition 65 (CA65), Delaware Air Quality Management L	
		List (FL), Massachusetts Hazardous Substances List (MA), Michigan Critical Substan	ces List (MI), Minnesota Hazardo
		Substances List (MN), New Jersey Right-to-Know List (NJ), New York Hazardous S Right-to-Know List (PA), Washington Permissible Exposures List (WA), Wisconsin Ha	



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		16. OTHER INFORMATION	SW revised 30.12.2020
16.1	Other Information:	DANGER! FLAMMABLE AEROSOL. PRESSURIZED CONTAINER SWALLOWED AND ENTERS AIRWAYS. CAUSES SKIN IRRITATION CAUSE DROWSINESS OR DIZZINESS. Wash hands and exposed after handling. Do not eat drink or smoke when using this product. A gloves/eye protection. IF IN EYES: Rinse cautiously with water for set and easy to do. Continue rinsing. Immediately call a POISON CENT water. For specific first aid treatment (see section 4 of this Safety Donly in well-ventilated area. Extinguish pilot light, cigarettes and other vapors are gone.  KEEP LOCKED UP AND OUT OF REACH OF CHILDREN.	SN. CAUSES SERIOUS EYE IRRITATION. MAY skin areas thoroughly with soap and warm water woold release to the environment. Wear protective veral minutes. Remove contact lenses, if present ER. IF ON SKIN: Wash with plenty of soap and ata Sheet). Rinse mouth. Store Locked up. Use
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.	
16.3	Disclaimer:	This Safety Data Sheet is offered pursuant to OSHA's Hazard Comm government regulations must be reviewed for applicability to this produ LLC knowledge, the information contained herein is reliable and accura completeness is not guaranteed and no warranties of any type, e information contained herein relates only to the specific product(s). If t component properties must be considered. Data may be changed edition.	ct. To the best of ShipMate's & Birchwood Casey, ate as of this date; however, accuracy, suitability or either expressed or implied, are provided. The this product(s) is combined with other materials, all
16.4	Prepared for:	Birchwood Casey, LLC 3260 Winpark Drive New Hope, MN 55427 USA Tel: +1 (952) 388-6717 Fax: +1 (952) 388-6702 Email: customerservice@birchwoodcasey.com http://www.birchwoodCasey.com	<u> </u>
16.5	Prepared by:	ShipMate, Inc. P.O. Box 787 Sisters, Oregon 97759-0787 USA Tel: +1 (310) 370-3600 Fax: +1 (310) 370-5700 http://www.shipmate.com	<b>Vlate</b> * erous Goods ing & Consulting



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SDS Revision: 1.0

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#### **DEFINITION OF TERMS**

A large number of abbreviations and acronyms appear on a SDS. Some of these that are commonly used include the following:

#### **GENERAL INFORMATION:**

CAS No. Chemical Abstract Service Number			
RTECS No.	Registry of Toxic Effects of Chemical Substances Number		
EINECS No.	European Inventory of Existing Commercial Chemical Substances Number		

#### **EXPOSURE LIMITS IN AIR:**

ACGIH	American Conference on Governmental Industrial Hygienists	
IDLH	LH Immediately Dangerous to Life and Health	
NOHSC	National Occupational Health and Safety Commission (Australia)	
OSHA U.S. Occupational Safety and Health Administration		
PEL Permissible Exposure Limit		
STEL	Short Term Exposure Limit	
TLV Threshold Limit Value		
TWA Time Weighted Average		

#### FIRST AID MEASURES:

CPR	Cardiopulmonary resuscitation - method in which a person whose heart has
	stopped receives manual chest compressions and breathing to circulate blood
	and provide oxygen to the body.

#### HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

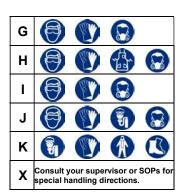
#### **HEALTH, FLAMMABILITY & REACTIVITY RATINGS:**

0	Minimal Hazard	
1 Slight Hazard		
2	Moderate Hazard	
3	Severe Hazard	
4	Extreme Hazard	



#### PERSONAL PROTECTION RATINGS:

Α		
В		
С		
D		
Е		
F		





#### OTHER STANDARD ABBREVIATIONS:

Carc	Carcinogenic	
Irrit	Irritant	
NA	NA Not Available	
NR	No Results	
ND	Not Determined	
NE	NE Not Established	
NF	NF Not Found	
SCBA	Self-Contained Breathing Apparatus	
Sens	Sensitization	
STOT RE	Specific Target Organ Toxicity – Repeat Exposure	
STOT SE	Specific Target Organ Toxicity – Single Exposure	

#### NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILI	FLAMMABILITY LIMITS IN AIR:			
Autoignition				
Temperature	of ignition			
LEL	Lower Explosive Limit - lowest percent of vapor in air, by volume, that will			
	explode or ignite in the presence of an ignition source			
UEL	Upper Explosive Limit - highest percent of vapor in air, by volume, that will			
	explode or ignite in the presence of an ignition source			

#### **HAZARD RATINGS:**

Minimal Hazard		FLAMMABILITY			
1	Slight Hazard	\			
2	Moderate Hazard	REACTIVITY			
3	Severe Hazard				
4	Extreme Hazard				
ACD	Acidic	<b>2</b>			
ALK	Alkaline				
COR	Corrosive	/ <b>\ \</b> \ \ \			
W	Use No Water	HEALTH			
ОХ	Oxidizer	SPECIAL			
TREFOIL	Radioactive	PRECAUTIONS			

#### TOXICOLOGICAL INFORMATION:

LD <sub>50</sub>	Lethal Dose (solids & liquids) which kills 50% of the exposed animals		
LC 50	Lethal concentration (gases) which kills 50% of the exposed animal		
ppm	Concentration expressed in parts of material per million parts		
TD <sub>Io</sub> Lowest dose to cause a symptom			
TCLo Lowest concentration to cause a symptom			
TD <sub>Io</sub> , LD <sub>Io</sub> , & LD <sub>o</sub> or Lowest dose (or concentration) to cause lethal or toxic effects			
TC, TCo, LCio, & LCo			
IARC	International Agency for Research on Cancer		
NTP	National Toxicology Program		
RTECS	Registry of Toxic Effects of Chemical Substances		
BCF	Bioconcentration Factor		
TLm	Median threshold limit		
log K <sub>ow</sub> or log K <sub>oc</sub>	Coefficient of Oil/Water Distribution		

#### REGULATORY INFORMATION:

WHMIS	Canadian Workplace Hazardous Material Information System				
DOT	U.S. Department of Transportation				
TC	Transport Canada				
EPA	EPA U.S. Environmental Protection Agency				
DSL	DSL Canadian Domestic Substance List				
NDSL	SL Canadian Non-Domestic Substance List				
PSL	PSL Canadian Priority Substances List				
TSCA	TSCA U.S. Toxic Substance Control Act				
EU	EU European Union (European Union Directive 67/548/EEC)				
WGK	WGK Wassergefährdungsklassen (German Water Hazard Class)				

#### WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION (WHMIS) SYSTEM:

0	<b>③</b>	<b>(3)</b>		①	<b>®</b>		R
Class A	Class B	Class C	Class D1	Class D2	Class D3	Class E	Class F
Compressed	Flammable	Oxidizing	Toxic	Irritation	Infectious	Corrosive	Reactive

#### CLP/GHS (1272/2008/EC) PICTOGRAMS:

		<b>③</b>	$\Diamond$			$\Diamond$		<b>(</b>
GHS01	GHS02	GHS03	GHS04	GHS05	GHS06	GHS07	GHS08	GHS09
Explosive	Flammable	Oxidizer	Pressurized	Corrosive	Toxic	Harmful Irritating	Health Hazard	Environment