

Page 1 of 7

SP-153

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 1272/2008/EC Standards MSDS Revision: 1.0 MSDS Revision Date: 03/15/2012 1. PRODUCT IDENTIFICATION 1 1 Product Name: **BLONDME PREMIUM LIFT 9+** 1.2 1.3 Synonyms: **BLONDME PREMIUM LIFT 9+** 1 4 Trade Names: NA 1.5 Product Use: PROFESSIONAL OR SUNDRY USE ONLY 1.6 Distributor's Name: SCHWARZKOPF, INC. Distributor's Address 1.7 600 CORPORATE POINTE, SUITE 1100, CULVER CITY, CA 90230 USA 1.8 CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-3887 1.9 +1 (310) 641-4600 2. HAZARD IDENTIFICATION Hazard Identification: This product is classified as a HAZARDOUS SUBSTANCE and as DANGEROUS GOODS according to the classification criteria of NOHSC:1008 (2004) and ADG Code (Australia). This product contains an oxidizing solid which, in itself, is not necessarily combustible, but may generally cause or contribute to the combustion of other materials by yielding oxygen. Store at room temperature. Keep from heat and moisture. Do not use metal utensils with this product. For external use only. Use only as directed. Keep out of WARNING! May intensify fire; oxidizer. May cause an allergic skin reaction. Hazard Statements (H): H272 - May intensify fire; oxidizer. H317 - May cause an allergic skin reaction. Precautionary Statements (P): P210 - Keep away from heat. P220 - Keep away from incompatible substances (see section 10.5 of this Safety Data Sheet). P221 – Take any precaution to avoid mixing with incompatible substances. P280 - Wear protective gloves/protective clothing/ eye protection/ face protection. P261 - Avoid breathing dusts/fumes/gas/mist/vapors/spray. P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P363 - Wash contaminated clothing before reuse. P370+P378 - In case of fire: use a Class A or Class B fire extinguisher. P501 - Dispose of contents/container through licensed treatment, storage or disposal facility (TSDF). HazChem Code: NA Poison Schedule: NA Routes of Entry: 2.2 YES NO Inhalation: Absorption: Ingestion: YES

Effects of Exposure: INGESTION:

May cause irritation in mouth and throat. Swallowing may cause evolution of oxygen which may cause injury by

distention of the esophagus or stomach. May cause nausea, vomiting and diarrhea.

SKIN & EYES: May cause irritation, redness, stinging and tearing. When bleach powders are mixed with peroxides or developers,

the resulting mixture may cause severe eye irritation and possible eye injury.

Prolonged exposure may cause irritation in nose and throat with chest discomfort, coughing and difficulty breathing. INHALATION:

Excessive inhalation of dust may result in sensitization and irritation to respiratory tract. May cause asthma-like

symptoms in some sensitive individuals.

Symptoms of Overexposure: Harmful if swallowed. Prolonged contact with skin may result in bleaching and irritation of skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals. Symptoms of skin overexposure may include redness, itching, and irritation of affected areas. Overexposure in eyes may cause redness, itching and watering (risk of serious damage to eyes). Contact may cause mild eye irritation including stinging, watering and redness. May cause redness or itching on the skin at the contact site.

Acute Health Effects:

None reported by the manufacturer.

2.6 Chronic Health Effects

> No harmful or chronic health effects are expected to occur from a single accidental ingestion. These ingredients may be irritating to skin and mucous membrane of the eye and respiratory system. Overexposure may trigger asthma-like symptoms in some sensitive individuals. May also induce skin sensitization and respiratory hypersensitivity. Possible allergic dermatitis.

Target Organs:

Eyes, Skin, Respiratory System

NA = Not Available; ND = Not Determined; NE = Not Established; NF = Not Found; C = Ceiling Limit; See Section 16 for Additional Definitions of Terms Used NOTE: All WHMIS required information is included. It is located in appropriate sections based on the ANSI Z400.1-2010 format.



Page 2 of 7

SP-153

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 1272/2008/EC Standards

MSDS Revision: 1.0

MSDS Revision Date: 03/15/2012

						EXPOS	SURE L	IMITS	IN AIR	(mg/n	1³)		
					ACGIH		NOHSC			OSHA			
					p	pm		ppm			ppm		OTHER
CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	TLV	STEL	ES- TWA	ES- STEL	ES- PEAK	TLV	STEL	IDLH	NIOSH
POTASSIUM PERSULFATE	7727-21-1	SE0400000	231-781-8	NA	(0.1)	NA	NF	NF	NF	NA	NA	NA	
SODIUM METASILICATE	6834-92-0	VV9275000	229-912-9	NA	NA	NF	NF	NF	NA	NA	NA	NA	
MAGNESIUM CARBONATE HYDROXIDE	56378-72-4	NA	235-192-7	NA	NA	NA	NF	NF	NF	NA	NA	NA	
AMMONIUM PERSULFATE	7727-54-0	SE0350000	231-786-5	NA	NA	NA	NF	NF	NF	NA	NA	NA	
PARAFFINUM LIQUIIDUM MINERAL OIL	8012-95-1	PY8030000	232-384-2	NA	NA	NA	NF	NF	NF	(5)	NA	NA	MIST
DIMETHICONE	63148-62-9	JT6484500	213-915-7	NA	NA	NA	NF	NF	NF	NA	NA	NA	
ACRYLATES COPOLYMER	NA	NA	NA	NA	NA	NA	NF	NF	NF	NA	NA	NA	
DISODIUM EDTA	6381-92-6	AH4410000	205-358-3	NA	NA	NA	NF	NF	NF	NA	NA	NA	
GLYCINE	56-40-6	Mb7600000	200-272-2	NA	NA	NA	NF	NF	NF	NA	NA	NA	
SILICA	7631-86-9	VV7565000	231-545-4	NA	NA	NA	NF	NF	NF	NA	NA	NA	
POLYQUATERNIUM-4	92183-41-0	NA	NA	NA	NA	NA	NF	NF	NF	NA	NA	NA	
SODIUM HEXAMETAPHOSPHATE	10124-56-8	OY3675000	233-343-1	NA	NA	NA	NF	NF	NF	NA	NA	NA	
DIMETHICONOL	31692-79-2	NA	NA	NA	NA	NA	NF	NF	NF	NA	NA	NA	
PARFUM (FRAGRANCE)	NA	NA	NA	NA	NA	NA	NF	NF	NF	NA	NA	NA	
POTASSIUM SULFATE	7778-80-5	TT5900000	231-915-5	NA	NA	NA	NF	NF	NF	NA	NA	NA	
AMMONIUM SULFATE	7783-20-2	BS4500000	231-984-1	NA	NA	NA	NF	NF	NF	NA	NA	NA	
GERANIOL	106-24-1	RG5830000	203-377-1	NA	NA	NA	NF	NF	NF	NA	NA	NA	
CITRONELLOL	106-22-9	UT2975000	203-375-0	NA	NA	NA	NF	NF	NF	NA	NA	NA	
CI 77007 (ULTRAMARINE)	57455-37-5	NA	309-928-3	NA	NA	NA	NF	NF	NF	NA	NA	NA	

AMM	AMMONIUM SULFATE 7783-20-2 BS4500000 231-984-1 NA NA					NA	NA	NF	NF	NF	NA	NA	NA		
GER	ANIOL		106-24-1	RG5830000	203-377-1	NA	NA	NA	NF	NF	NF	NA	NA	NA	
CITR	CITRONELLOL		106-22-9	UT2975000	203-375-0	NA	NA	NA	NF	NF	NF	NA	NA	NA	
CI 77	007 (ULTRAMA	RINE)	57455-37-5	NA	309-928-3	NA	NA	NA	NF	NF	NF	NA	NA	NA	
				4. FIF	RST AID N	MEAS	URE	<u>S</u>							
4.1	First Aid:														
	INGESTION: If ingested, do not induce vomiting. Drink plenty of water or milk. If the patient is vomiting, continue to offer plenty of water or milk. Never give water or milk to an unconscious person. If large quantities are ingested, contact the nearest Poison Control Center or local emergency number. Provide an estimate of the time and amount of the substance that was swallowed. Get medical attention immediately.														
	EYES: If product is in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. Remove contact lenses if present and easy to do, continue flushing. Open and close eyelid(s) to ensure thorough irrigation. If problem persists consult a physician.														
	SKIN: If redness, dryness or other signs of irritation to the skin develop, remove contaminated clothing and wash affected skin areas with plenty of warm water and soap. If irritation persists, consult a physician.							ed skin							
	INHALATION:	Remove vic	tim to fresh a	ir at once. Giv	e oxygen as ı	necessar	y and g	get med	dical at	tentio	n.				
4.2	Medical Conditions							HE	EALT	TH					1
	properties to	eyes, resp	oiratory syste	Most common	. Existing	dermate	ologica	FL			ILIT	1			1
	and/or bronch			atory condition	ns (such as b	ronchiai	astnma	Pł	HYSI	CAL	HAZ	ARD	S		1
								PF	ROTE	ECTI	VE E	QUII	PME	NT	В

EYES

SKIN



8.4

8.5

Body Protection:

Avoid contact with skin, eyes and clothing

MATERIAL SAFETY DATA SHEET

Page 3 of 7

SP-153

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 1272/2008/EC Standards MSDS Revision: 1.0 MSDS Revision Date: 03/15/2012 5. FIREFIGHTING MEASURES Flashpoint & Method: 5.1 NA 5.2 Autoignition Temperature: ND Flammability Limits: 5.3 Lower Explosive Limit (LEL): NA Upper Explosive Limit (UEL): NA Fire & Explosion Hazards: Upon decomposition, persulfates yield oxygen and may thereby stimulate combustion of flammable and combustible materials. Extinguish fires with media appropriate for the burning material. Product contains oxidizing materials. Residual product on towels, sponges or mops may cause fire. Rinse towels thoroughly before disposal. Rinse sponges and mops thoroughly before storage. Persulfate compounds may ignite and undergo decomposition in the presence of moisture and heat. Spray and flood decomposing material with large quantities of water. Extinguishing Methods: Water and/or foam - typically a Class A or Class B extinguisher should be sufficient for the product. However, selection of a fire extinguisher should also be appropriate to address the location of the fire and equipment involved. Flood with water and use water spray to cool fire-exposed containers and structures. 5.6 As in any fire, wear MSHA/NIOSH approved self-contained breathing apparatus (pressure-demand) and full protective gear. Keep containers cool until well after the fire is out. Use water spray to cool fire-exposed surfaces and to protect personnel. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway. Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous decomposition products. 6. ACCIDENTAL RELEASE MEASURES Spills: 6.1 Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment. Plastic or rubber gloves, respirator, eye protection and apron may be required for clean-up of large spills. Small Spills: Wear appropriate protective equipment including gloves and protective eyewear. Use a non-combustible material such as vermiculite or sand to soak up the product and place into a container for later disposal. Do not use water or a material such as "speedy dry" to soak up material. Sweep up material using non-sparking materials (e.g., plastic brooms, shovels, dustpans) and place into a plastic container or plastic liner within another container. Large Spills: Keep incompatible materials (e.g., organics such as oil) away from spill. Stay upwind and away from spill or release. Isolate immediate hazard area and keep unauthorized personnel out of area. Stop spill or release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant. 7. HANDLING & STORAGE INFORMATION Work & Hygiene Practices: Do not eat, drink or smoke when handling this product. Wash thoroughly after handling. Avoid contact with flammable or combustible materials. Avoid contamination from any source, including metals, dust and organic materials. Keep bulk materials covered. Use chemical goggles if eye contact is possible. Wash unintentional residues with soap and warm water. Storage & Handling: 72 Use and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans) away from heat and direct sunlight. Avoid temperatures above 120 °F. Keep away from incompatible substances. Protect containers from physical damage. To avoid unintentional spraying keep cap in place when not in use. Special Precautions: Spilled material may present a slipping hazard if left unattended. Clean all spills promptly. Do not allow stored material to come into contact with moisture (keep lids properly affixed on product stored in plastic tubs). Do not store metal utensils inside containers of product. 8. EXPOSURE CONTROLS & PERSONAL PROTECTION 8.1 General mechanical (e.g., fans) or natural ventilation is sufficient when this product is in use. Use local or general exhaust ventilation to effectively remove and prevent buildup of vapors or mist generated from the handling of this product. Respiratory Protection: 8.2 None required if used in a well-ventilated area. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrants a respirator's use. 8.3 Avoid eye contact. Use approved safety glasses or goggles.

Rubber or latex gloves. Chemical impervious if handling large amounts (≥ 1 gallon)



Page 4 of 7

SP-153

	ared to OSHA, ACC, ANSI,	, NOHSC, WHMIS & 1272/2008/EC Standards MSDS Revision: 1.0 MSDS Revision Date: 03/15/2012
		9. PHYSICAL & CHEMICAL PROPERTIES
.1	Density:	0.65 – 0.98 g/ml
2	Boiling Point:	NA NA
3	Melting Point:	NA NA
4	Evaporation Rate:	NA NA
5	Vapor Pressure:	ND
6	Molecular Weight:	NA
7	Appearance & Color:	Light blue powder
3	Odor Threshold:	Fresh, clean odor
9	Solubility:	Soluble
10	pH	10.3 – 11.3
11	Viscosity:	NA NA
12	Other Information:	NA
		10. STABILITY & REACTIVITY
.1	Stability:	nditions; unstable with heat or contamination. Liberation of oxygen gas may result in dangerous pressures.
.2	Hazardous Decomposition Produc	
).3	Hazardous Polymerization: Will not occur.	50, 002/ and danar (e.g., 002/. Elboration of gas (e.g., 0x/gon/ may reduit in dangerous pressures.
0.4	Conditions to Avoid:	gh heat, incompatible substances and direct sunlight.
0.5		nics, some acids, flammable materials. Do not use metallic bowls or utensils when mixing this product. Avoid sture, combustible or organic materials (e.g., sawdust, damp paper towels).
		11. TOXICOLOGICAL INFORMATION
1.1	Toxicity Data: Ammonium Persulfate:	LD ₅₀ (oral, rat) = 689 mg/kg; Ammonium Sulfate: LD50 (oral, rat) = 2840 mg/kg
.2	Acute Toxicity: See section 2.5	
.3	See section 2.5 Chronic Toxicity:	
.3	See section 2.5 Chronic Toxicity: See section 2.6 Suspected Carcinogen: No Reproductive Toxicity:	orted to produce reproductive toxicity in humans.
.3	See section 2.5 Chronic Toxicity: See section 2.6 Suspected Carcinogen: No Reproductive Toxicity: This product is not repo Mutagenicity:	orted to produce reproductive toxicity in humans. Orted to produce mutagenic effects in humans.
.3	See section 2.5 Chronic Toxicity: See section 2.6 Suspected Carcinogen: No Reproductive Toxicity: This product is not repo Mutagenicity: This product is not repo Embryotoxicity: This product is not repo	· · · · · · · · · · · · · · · · · · ·
.3	See section 2.5 Chronic Toxicity: See section 2.6 Suspected Carcinogen: No Reproductive Toxicity: This product is not repo Mutagenicity: This product is not repo Embryotoxicity: This product is not repo Teratogenicity: This product is not repo	orted to produce mutagenic effects in humans.
.3	See section 2.5 Chronic Toxicity: See section 2.6 Suspected Carcinogen: No Reproductive Toxicity: This product is not repo Mutagenicity: This product is not repo Embryotoxicity: This product is not repo Teratogenicity: This product is not repo Reproductive Toxicity: This product is not repo Reproductive Toxicity: This product is not repo	orted to produce mutagenic effects in humans. orted to produce embryotoxic effects in humans.
.3	See section 2.5 Chronic Toxicity: See section 2.6 Suspected Carcinogen: No Reproductive Toxicity: This product is not repo Mutagenicity: This product is not repo Embryotoxicity: This product is not repo Teratogenicity: This product is not repo Reproductive Toxicity:	orted to produce mutagenic effects in humans. orted to produce embryotoxic effects in humans. orted to produce teratogenic effects in humans.
.2 .3 .4 .5	See section 2.5 Chronic Toxicity: See section 2.6 Suspected Carcinogen: No Reproductive Toxicity: This product is not repo Embryotoxicity: This product is not repo Teratogenicity: This product is not repo Reproductive Toxicity: This product is not repo Reproductive Toxicity: This product is not repo Irritancy of Product:	orted to produce mutagenic effects in humans. orted to produce embryotoxic effects in humans. orted to produce teratogenic effects in humans.



Page 5 of 7

SP-153

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 1272/2008/EC Standards MSDS Revision: 1.0 MSDS Revision Date: 03/15/2012 12. ECOLOGICAL INFORMATION Environmental Stability: 12.1 There is no specific data available for this product. 12.2 Effects on Plants & Animals: There is no specific data available for this product. 12.3 Effects on Aquatic Life: The product itself has not been tested as a whole, but the following results have been associated with some of its constituents: Potassium Persulfate: Bluegill sunfish, 96-hour LC₅₀ = 771 mg/L; Rainbow Trout, 96-hour LC₅₀ = 163 mg/L; Daphnia, 48-hour LC₅₀ = 133 mg/L; Grass shrimp, 96 hour LC₅₀ = 519 mg/L 13. DISPOSAL CONSIDERATIONS 13.1 Dispose of in accordance with federal, state and local regulations. Hair bleaching products are ignitable RCRA hazardous wastes when intended for disposal. Physical and/or chemical deactivation/degradation is the required method of treatment and disposal. Special Considerations 13.2 U.S. EPA Characteristic Waste: D001 (characteristic - ignitable) 14. TRANSPORTATION INFORMATION The basic description (ID Number, proper shipping name, hazard class & division, , packing group) is shown for each mode of transportation. Additional descriptive information may be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR. 49 CFR (GND): UN1479, OXIDIZING SOLID, N.O.S. (POTASSIUM PERSULFATE, AMMONIUM PERSULFATE), 5.1, III, LTD QTY (IP VOL ≤ 5.0 kg) 14.2 UN1479, OXIDIZING SOLID, N.O.S. (POTASSIUM PERSULFATE, AMMONIUM PERSULFATE), 5.1, III, LTD QTY (IP VOL ≤ 1.0 kg, TOTAL VOL ≤ 10.0 kg), PACKING INSTRUCTION Y546 14.3 UN1479, OXIDIZING SOLID, N.O.S. (POTASSIUM PERSULFATE, AMMONIUM PERSULFATE), 5.1, III, LTD QTY (IP VOL ≤ 5.0 kg) 14.4 TDGR (Canadian GND): UN1479, OXIDIZING SOLID, N.O.S. (POTASSIUM PERSULFATE, AMMONIUM PERSULFATE), 5.1, III, LTD QTY 14.5 ADR/RID (EU) UN1479, OXIDIZING SOLID, N.O.S. (POTASSIUM PERSULFATE, AMMONIUM PERSULFATE), 5.1, III, LTD QTY (IP VOL ≤ 5.0 kg) 14.6 SCT (MEXICO): UN1479, SOLIDO COMBURENTE, N.E.P. (PERSULFATO DE SODIO, PERSULFATO DE POTASIO). 5.1. III, LTD QTY (IP VOL ≤ 5.0 kg) 14.7 ADGR (AUS): UN1479, OXIDIZING SOLID, N.O.S. (POTASSIUM PERSULFATE, AMMONIUM PERSULFATE), 5.1, III, LTD QTY (IP VOL ≤ 5.0 kg) REGULATORY INFORMATION 15.1 SARA Reporting Requirements: NA 15.2 SARA Threshold Planning Quantity: 15.3 All chemical substances of this product are listed on the TSCA inventory or are otherwise exempted from inventory status. CERCLA Reportable Quantity (RQ): 15.4 NA 15.5 Other Federal Requirements: This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR subchapter G (Cosmetics). Potassium hydroxide is listed as a Hazardous Substance under the CWA. 15.6 Other Canadian Regulations: This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substances List.



Page 6 of 7

SP-153

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 1272/2008/EC Standards

MSDS Revision: 1.0

MSDS Revision Date: 03/15/2012

15. REGULATORY INFORMATION - cont'd

15.7 State Regulatory Information:

NA

15.8

67/548/EEC (European Union) Requirements:

The primary component of this product is listed in Annex I of EU Directive 67/548/EEC:

Potassium Persulfate: O, Xn, Xi (Oxidizer, Harmful, Irritant).

Risk Phrases (R): 8-22-36/37/38-42/43 - Contact with combustible material may cause fire. Harmful if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact.

Safety Phrases (S): (2-)-22-24-26-37 - Keep out of the reach of children. Do not breathe dust. Avoid contact with skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves.

WARNING! May intensify fire; oxidizer. May cause an allergic skin reaction.

Hazard Statements (H): H272 - May intensify fire; oxidizer. H317 - May cause an allergic skin reaction.

Precautionary Statements (P): P210 - Keep away from heat. P220 - Keep away from incompatible substances (see section 10.5 of this Safety Data Sheet). P221 - Take any precaution to avoid mixing with incompatible substances. P280 - Wear protective gloves/protective clothing/ eye protection/ face protection. P261 - Avoid breathing dusts/fumes/gas/mist/vapors/spray. P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P363 - Wash contaminated clothing before reuse. P370+P378 - In case of fire: use a Class A or Class B fire extinguisher. P501 - Dispose of contents/container through licensed treatment, storage or disposal facility (TSDF).



HazChem Code: NA Poison Schedule: NA

16. OTHER INFORMATION

16 1 Other Information:

For external use only. Use only as directed. Discontinue use immediately if irritation develops.

16.2 See last page of this MSDS.

16.3 Disclaimer:

This Material Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of ShipMate's & Schwarzkopf's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.

16.4 Prepared for:

Schwarzkopf, Inc. 600 Corporate Pointe, Suite 1100 Culver City, CA 90230 USA Tel: +1 (310) 641-4600

Fax: +1 (310) 641-4601

http://www.schwarzkopf.com

Prepared by: ShipMate, Inc. P.O. Box 787

Sisters, OR 97759-0787 +1-310-370-3600 phone

+1-310-370-5700 fax http://www.shipmate.com







Page 7 of 7

SP-153

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards

MSDS Revision: 1.0

MSDS Revision Date: 03/15/2012

DEFINITION OF TERMS

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

GENERAL INFORMATION:

CAS No.	Chemical Abstract Service Number				

EXPOSURE LIMITS IN AIR:

ACGIH	American Conference on Governmental Industrial Hygienists
TLV	Threshold Limit Value
OSHA	U.S. Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
IDLH	Immediately Dangerous to Life and Health

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.

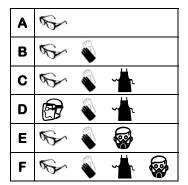
HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

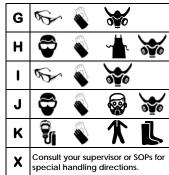
HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

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



PERSONAL PROTECTION RATINGS:







OTHER STANDARD ABBREVIATIONS:

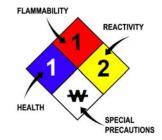
NA	Not Available
NR	No Results
NE	Not Established
ND	Not Determined
ML	Maximum Limit
SCBA	Self-Contained Breathing Apparatus

NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:					
Autoignition	Minimum temperature required to initiate combustion in air with no				
Temperature	other source 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:

0	Minimal Hazard
1	Slight Hazard
2	Moderate Hazard
3	Severe Hazard
4	Extreme Hazard
ACD	Acidic
ALK	Alkaline
COR	Corrosive
₩	Use No Water
OX	Oxidizer
TREFOIL	Radioactive
	-



TOXICOLOGICAL INFORMATION:

LD ₅₀	Lethal Dose (solids & liquids) which kills 50% of the exposed animals s
LC ₅₀	Lethal concentration (gases) which kills 50% of the exposed animal
ppm	Concentration expressed in parts of material per million parts
TD _{Io}	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD _{Io} , LD _{Io} , & LD _o 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
TL _m	Median threshold limit
log Kow or log Koc	Coefficient of Oil/Water Distribution

REGULATORY INFORMATION:

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

WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION (WHMIS) SYSTEM:

\oslash		(8)		(Ţ)	®		
Α	В	С	D1	D2	D3	E	F
Compressed	Flammable	Oxidizing	Toxic	Irritation	Infectious	Corrosive	Reactive

EC (67/548/EEC) INFORMATION:

1		No.	*		*	X	X
С	E	F	N	0	T+	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful

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

			\Diamond			\Leftrightarrow	***	***
GHS01	GHS02	GHS03	GHS04	GHS05	GHS06	GHS07	GHS08	GHS09
Explosive	Flammable	Oxidizer	Pressurized	Corrosive	Toxic	Harmful Irritating	Health Hazard	Environment