Page 1 of 6 SAFETY DATA SHEET PAUL MITCHELL **PM-038** Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision: 1.3 SDS Revision Date: 7/1/2016 1. PRODUCT & COMPANY IDENTIFICATION 1.1 Product Name: PAUL MITCHELL – FLASH BACK DEMI-PERMANENT COLOR 9N LIGHT **NEUTRAL** 1.2 Chemical Name: NA 1.3 JPMS – Flash Back Demi-permanent Color 9N Light Neutral Synonyms Trade Names 1.4 Paul Mitchell - Flash Back Demi-permanent Color 9N Light Neutral Product Uses & Restrictions 15 Professional Use Only Distributor's Name 16 JPMS Manufacturing, LLC 237 Buttonwood Street, Reading, PA 19601 USA 1.7 Distributor's Address 1.8 Emergency Phone: CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-9300 (CCN 11977) 1.9 Business Phone / Fax: +1 (610) 374-4845 / +1(610) 373-7101 2. HAZARDS IDENTIFICATION This product is classified as a HAZARDOUS SUBSTANCE but NOT as DANGEROUS GOODS Hazard Identification: 2.1 according to the classification criteria of NOHSC: 1088 (2004) and ADG Code (Australia). WARNING! MAY CAUSES AN ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE **IRRITATION.** Classification: Skin Sens.1; Eye Irrit. 2A Hazard Statements (H): H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. Precautionary Statements (P): P271 - Use only in well-ventilated area. P280 - Wear protective gloves and eye/face protection. P305+P351+P338 - IF IN EYES: Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 - If eye irritation persists: Get medical advice/attention. P312 - Call a POISON CENTER/doctor if you feel unwell. P332+P313 - If skin irritation occurs: get medical advice/attention. P405 - Store locked up. P501 - Dispose of contents/container to a licensed treatment, storage or disposal facility (TSDF) NOTICE: This product is designed and intended for use by a licensed cosmetologist/professional hairdresser only, and carries no warranty, expressed or implied, if used by others. CAN CAUSE AN ALLERGIC REACTION. Preliminary patch testing is recommended. Tattoos, including black and temporary henna, may increase the risk of allergy. If a severe allergic reaction should occur, seek immediate medical attention. This product must not be used for dyeing the eyelashes or eyebrows - to do so may cause blindness. 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. TLV STEL STEL PEAK PEL STEL IDLH OTHER TWA 60-100 NA NA NA NA NA NF NF NF NA NA NA JPMS PROPRIETARY BLEND SS8050000 NA 0.1 NA 25 106-50-3 203-404-7 < 1.0 NA NF NF NA P-PHENYLENEDIAMINE Acute Tox. 3 *; Acute Tox. 3 *; Acute Tox. 3 *; Eye Irrit. 2; Skin Sens. 1; H331, H311, H301, H319, H317 104226-21-3 NA 146-420-6 < 1.0 NA NA NF NF NF NA NA NA HC YELLOW 7 VH0450000 202-462-1 < 1.0 NA NA NF NF NA NF NF 95-88-5 NF 4-CHLORORESORCINOL Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3; H302, H312, H332, H331, H319, H335 NA NA NF NF NF 123-30-8 NA 204-616-2 < 1.0 NA NA NA p-AMINOPHENOL 66422-95-5 NA 266-357-1 < 1.0 NA NA NF NF NF NA NA NA 2,4-DIAMINOPHENOXYETHANOL HCI 4. FIRST AID MEASURES 4.1 First Aid: Ingestion: If ingested, do not induce vomiting. If product has been swallowed, drink plenty of water or milk IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give water or milk to an unconscious person. Contact the nearest Poison Control Center or local emergency number. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed. Splashes are not likely; however, if product gets in the eyes, flush with copious amounts of lukewarm Eyes: water for at least 15 minutes. If irritation occurs, contact a physician. If irritation occurs and product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough Skin: washing of the affected area with soap and water. If irritation, redness or swelling persists, contact a physician immediately. Remove victim to fresh air at once. Inhalation:

SAFETY DATA SHEET

Page 2 of 6 **PM-038**

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

SDS Revision: 1.3 SDS

SDS Revision Date: 7/1/2016

		4. FIRS	ТЛІ				ont'd					
4.2	Effects of Exposure:							liarrhaa				
4.2		Eves: Moderately irritating to the eyes. Symptoms of overexposure may include redness, itching, irritation and watering.										
		Skin: May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis some sensitive individuals.								matitis) in		
		Inhalation: None expected					_					
4.3	Symptoms of Overexposure:	Overexposure in eyes may cause redness, itching and watering. Symptoms of skin overexposure may include redness, itching, and irritation of affected areas. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals.										
4.4	Acute Health Effects:	Moderate irritation to eyes. Moderate irritation to skin nea	ar affec	ted area	as.				-		irritation and	l watering.
4.5	Chronic Health Effects:	No harmful or chronic health	effects	are exp	ected to or	ccur from a	a single ac	cidental	ingestio	n.		
4.6	Target Organs:	Eyes, Skin										
4.7	Medical Conditions Aggravated by Exposure:	Pre-existing dermatitis, othe target organs (eyes and skin)		conditio	ns, and d	isorders o	f the HE	ALTH				1
		target organs (eyes and skin)	•									0
									L HAZ			1
							PR	OTEC	TIVE E		ENT	В
							EY	ES	SKIN			
		5. FIF	REFI	GHTI	NG ME	ASUR	ES					
5.1	Fire & Explosion Hazards:	This product is not flammable temperatures to form toxic ga					is product	may deo	compose	e at higł	h	
5.2	Extinguishing Methods:	Water, Foam, CO ₂ , Dry Chen	nical									
5.3	Firefighting Procedures:	Fight fires as for surroundin Thermal degradation may derivatives. Firefighters sho breathing apparatus (SCBA) Keep containers cool until we and to protect personal. Figh sewers, drains, drinking watel	produc uld we and pr ell after	e oxide ear a M otective the fire pwind.	es of cart //SHA/NIO clothing. is out. U Prevent ru	oon and/o SH appro Fire shou se water s noff from f	or nitrogen oved or ed Id be foug spray to co	n, hydro quivalen ht from ol fire-e:	ocarbons it self-co a safe o xposed	and/o ontained distance surfaces	r d s	1
				, <u> </u>		,						
		6. ACCIDE	ENTA	AL RE	ELEAS	E MEA	SURE	S				
6.1	Spills:	Before cleaning any spill of Equipment.							/ear app	oropriate	e Personal	Protective
		Maximize ventilation (open absorbent material and place local, state and federal regu	For <u>small spills</u> (e.g., < 1 gallon (3.8 L)) wear appropriate personal protective equipment (e.g., goggles, gloves). Maximize ventilation (open doors and windows) and secure all sources of ignition. Remove spilled material with absorbent material and place into appropriate closed container(s) for disposal. Dispose of properly in accordance with local, state and federal regulations. Wash all affected areas and outside of container with plenty of warm water and soap. Remove any contaminated clothing and wash thoroughly before reuse.									
		For <u>large spills</u> (e.g., \geq 1 gallon (3.8 L)), deny entry to all unprotected individuals. Dike and contain spill with inert material (e.g., sand or earth). Transfer liquid to containers for recovery or disposal and solid diking material to separate containers for proper disposal. Remove containiated clothing promptly and wash affected skin areas with soap and water. Keep spills and cleaning runoffs out of municipal sewers and open bodies of water.										
		· · ·										
		7. HANDLIN	IG &	STO	RAGE	INFOF	RMATIC	DN				
7.1	Work & Hygiene Practices:	Do not eat, drink or smoke w and clothing. Do not expose unintentional residues with so	hen ha to hea	andling f t and fla	his produc ame. Use c	t. Wash	thoroughly	after ha	0			, , , , ,
7.2	Storage & Handling:	Use and store in a cool, dry sunlight. Avoid temperatures damage. To avoid unintention	, well- above	ventilate 120°F.	d location Keep awa	ly from inc	ompatible	substan	ces. Pr	otect co	ontainers from	m physical
7.3	Special Precautions:	Spilled material may present a							anayn			
								-				
		8. EXPOSURE CO	NTR	OLS	& PER	SONA	L PRO	TECT	ION			
8.1	Exposure Limits:			GIH		NOHSC			OSHA		OTHER	
	ppm (mg/m ³)	CHEMICAL NAME(S)	TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH		
		p-PHENYLENEDIAMINE	NA	NA	NF	0.1	NF	NA	NA	25		
8.2	Ventilation & Engineering Controls:	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. Ensure appropriate decontamination equipment is available (e.g., sink, safety shower, eye-wash station).										

SAFETY DATA SHEET

Page 3 of 6 **PM-038**

	,,,	IOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision: 1.3 SDS Revision Date: 7/1/2016
	8.	EXPOSURE CONTROLS & PERSONAL PROTECTION – cont'd
	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.
	Eye Protection:	Avoid eye contact. None required under normal conditions of use. When handling large quantities
		(e.g., ≥ 1 gallon (3.8 L)) safety glasses with side shields should be used.
	Hand Protection:	Required under normal conditions of use to prevent staining and keep exposure level to a
		minimum. Use latex or PVC gloves. When handling large quantities (e.g., ≥ 1 gallon (3.8 L)), wear
		rubber or impervious plastic gloves must be worn.
	Body Protection:	No apron required when handling small quantities. Lab coat or apron should be worn to protect
		skin and clothing. When handling large quantities (e.g., ≥ 1 gallon), eye wash stations and deluge
		showers should be available. Upon completion of work activities involving large quantities of this
		product, wash any exposed areas thoroughly with soap and water.
	Appearance:	9. PHYSICAL & CHEMICAL PROPERTIES
	Odor:	Clear liquid Perfumery
	Odor Threshold:	NA
	pH:	NA
	Melting Point/Freezing Point:	NA
	Initial Boiling Point/Boiling	
	Range:	NA
	Flashpoint:	NA
	Upper/Lower Flammability	NA
	Limits: Vapor Pressure:	
		NA La do start
)	Vapor Density:	1.12 g/mL
1	Relative Density:	NA
2	Solubility:	Slightly soluble
3	Partition Coefficient (log Pow):	NA
4	Autoignition Temperature:	NA
5	Decomposition Temperature:	NA
6	Viscosity:	NA
7	Other Information:	NA
		10. STABILITY & REACTIVITY
1	Stability:	This product is stable.
2	Hazardous Decomposition	Oxides of carbon (CO, CO ₂), nitrogen (NO _x) and sulfur (SO ₂).
2	Products:	
3 4	Hazardous Polymerization: Conditions to Avoid:	Will not occur.
		Open flames, sparks, high heat, incompatible substances and direct sunlight.
5	Incompatible Substances:	Avoid extreme heat and ignition sources. Store away from oxidizers.
	Devites of Faters	11. TOXICOLOGICAL INFORMATION
1	Routes of Entry:	Inhalation: NO Absorption: YES Ingestion: YES
-	Toxicity Data:	This product has NOT been tested on animals to obtain toxicology data. Toxicology data, found in scientific literature,
2	A suite Taudalta	available for some of the components of the product but is not presented in this document.
	Acute Toxicity:	Moderate irritation to eyes and skin near affected areas. Additionally, high concentrations of vapors can cau drowsiness, dizziness, headaches and nausea.
3	Chronic Toxicity:	
3	Chronic Toxicity:	This material may aggravate any pre-existing skin condition (e.g., dermatitis).
3	Chronic Toxicity: Suspected Carcinogen:	This material may aggravate any pre-existing skin condition (e.g., dermatitis). This product contains <u>p-Phenylenediamine</u> , which are not carcinogenic to humans, but are listed as Group 3 carcinoge
3 4 5	Suspected Carcinogen:	This material may aggravate any pre-existing skin condition (e.g., dermatitis). This product contains <u>p-Phenylenediamine</u> , which are not carcinogenic to humans, but are listed as Group 3 carcinoge by the IARC. This product contains <u>p-Phenylenediamine</u> listed by ACGIH in group A4.
3 4 5	Suspected Carcinogen: Reproductive Toxicity:	This material may aggravate any pre-existing skin condition (e.g., dermatitis). This product contains <u>p-Phenylenediamine</u> , which are not carcinogenic to humans, but are listed as Group 3 carcinoge by the IARC. This product contains <u>p-Phenylenediamine</u> listed by ACGIH in group A4. This product is not reported to produce reproductive toxicity in humans.
3 4 5	Suspected Carcinogen: Reproductive Toxicity: Mutagenicity:	This material may aggravate any pre-existing skin condition (e.g., dermatitis). This product contains <u>p-Phenylenediamine</u> , which are not carcinogenic to humans, but are listed as Group 3 carcinoge by the IARC. This product contains <u>p-Phenylenediamine</u> listed by ACGIH in group A4. This product is not reported to produce reproductive toxicity in humans. This product is not reported to produce mutagenic effects in humans.
3 4 5	Suspected Carcinogen: Reproductive Toxicity: Mutagenicity: Embryotoxicity:	This material may aggravate any pre-existing skin condition (e.g., dermatitis).This product contains p-Phenylenediamine, which are not carcinogenic to humans, but are listed as Group 3 carcinoge by the IARC. This product contains p-Phenylenediamine listed by ACGIH in group A4.This product is not reported to produce reproductive toxicity in humans.This product is not reported to produce mutagenic effects in humans.This product is not reported to produce embryotoxic effects in humans.
2 3 4 5 6	Suspected Carcinogen: Reproductive Toxicity: Mutagenicity: Embryotoxicity: Teratogenicity:	This material may aggravate any pre-existing skin condition (e.g., dermatitis). This product contains <u>p-Phenylenediamine</u> , which are not carcinogenic to humans, but are listed as Group 3 carcinoge by the IARC. This product contains <u>p-Phenylenediamine</u> listed by ACGIH in group A4. This product is not reported to produce reproductive toxicity in humans. This product is not reported to produce mutagenic effects in humans. This product is not reported to produce embryotoxic effects in humans. This product is not reported to cause teratogenic effects in humans.
3 4 5 6	Suspected Carcinogen: Reproductive Toxicity: Mutagenicity: Embryotoxicity: Teratogenicity: Reproductive Toxicity:	This material may aggravate any pre-existing skin condition (e.g., dermatitis). This product contains p-Phenylenediamine, which are not carcinogenic to humans, but are listed as Group 3 carcinoge by the IARC. This product contains p-Phenylenediamine listed by ACGIH in group A4. This product is not reported to produce reproductive toxicity in humans. This product is not reported to produce mutagenic effects in humans. This product is not reported to produce embryotoxic effects in humans. This product is not reported to cause teratogenic effects in humans. This product is not reported to cause teratogenic effects in humans. This product is not reported to cause teratogenic effects in humans. This product is not reported to cause teratogenic effects in humans. This product is not reported to cause teratogenic effects in humans. This product is not reported to cause reproductive effects in humans.
3 4 5	Suspected Carcinogen: Reproductive Toxicity: Mutagenicity: Embryotoxicity: Teratogenicity:	This material may aggravate any pre-existing skin condition (e.g., dermatitis). This product contains <u>p-Phenylenediamine</u> , which are not carcinogenic to humans, but are listed as Group 3 carcinoge by the IARC. This product contains <u>p-Phenylenediamine</u> listed by ACGIH in group A4. This product is not reported to produce reproductive toxicity in humans. This product is not reported to produce mutagenic effects in humans. This product is not reported to produce embryotoxic effects in humans. This product is not reported to cause teratogenic effects in humans.
3 1 5	Suspected Carcinogen: Reproductive Toxicity: Mutagenicity: Embryotoxicity: Teratogenicity: Reproductive Toxicity:	This material may aggravate any pre-existing skin condition (e.g., dermatitis). This product contains <u>p-Phenylenediamine</u> , which are not carcinogenic to humans, but are listed as Group 3 carcinoge by the IARC. This product contains <u>p-Phenylenediamine</u> listed by ACGIH in group A4. This product is not reported to produce reproductive toxicity in humans. This product is not reported to produce mutagenic effects in humans. This product is not reported to produce embryotoxic effects in humans. This product is not reported to cause teratogenic effects in humans. This product is not reported to cause teratogenic effects in humans. This product is not reported to cause teratogenic effects in humans. This product is not reported to cause teratogenic effects in humans. This product is not reported to cause teratogenic effects in humans. This product is not reported to cause reproductive effects in humans.

SAFETY DATA SHEET

Page 4 of 6 **PM-038**

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

SDS Revision: 1.3

SDS Revision Date: 7/1/2016

	12. ECOLOGICAL INFORMATION						
12.1	Environmental Stability:	There is no specific data available for this product.					
12.2	12.2 Effects on Plants & Animals: There is no specific data available for this product.						
12.3	12.3 Effects on Aquatic Life: There is no specific data available for this product.						

13. DISPOSAL CONSIDERATIONS

 13.1
 Waste Disposal:
 Products covered by this Safety Data Sheet, in their original form, when disposed as waste, are considered non hazardous waste according to Federal RCRA regulations (40 CFR 261). Disposal should be in accordance with local, state and federal regulations. Dispose of in accordance with federal, state and local regulations.

 13.2
 Special Considerations:
 California Waste Code: 331

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.							
14.1	49 CFR (GND):	NOT REGULATED						
14.2	IATA (AIR):	NOT REGULATED						
14.3	IMDG (OCN):	NOT REGULATED						
14.4	TDGR (Canadian GND):	NOT REGULATED						
14.5	ADR/RID (EU):	NOT REGULATED						
14.6	SCT (MEXICO):	NOT REGULATED						
14.7	14.7 ADGR (AUS): NOT REGULATED							

15. REGULATORY INFORMATION

15.1	SARA Reporting Requirements:	This product contains p-Phenylenediamine a substance subject to SARA Title III, section 313 reporting requirements.						
15.2	SARA Threshold Planning Quantity:	This product is not subject to the reporting requirements of SARA Title III, Section 302.						
15.3	TSCA Inventory Status:	All components of this product are listed in the TSCA Inventory or are exempt.						
15.4	CERCLA Reportable Quantity (RQ):	<u>p-Phenylenediamine:</u> 2,270 kg (5,000 lbs).						
15.5	Other Federal Requirements:	This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR Subchapter G, (Cosmetics).						
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. WHMIS D2B (Other Toxic Effects).						
15.7	State Regulatory Information:	<u>p-Phenylenediamine</u> is found on the following state criteria list: Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), Pennsylvania Right-to-Know List (PA), and Washington Permissible Exposures List (WA). No other ingredients in this product, present in a concentration of 1.0% or greater, are listed on any of the following state criteria lists: California Proposition 65 (CA65), Delaware Air Quality Management List (DE), Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Minnesota Hazardous Substances List (FL), Massachusetts Hazardous Substances List (MA), Michigan Critical Substances List (MI), Minnesota Hazardous Substances List (NJ), New York Hazardous Substances List (NY), Pennsylvania Right-to-Know List (PA), Washington Permissible Exposures List (WA), Wisconsin Hazardous Substances List (WI).						
15.8	Other Requirements:	NA						

SAFETY DATA SHEET

Page 5 of 6 **PM-038**

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

SDS Revision: 1.3

SDS Revision Date: 7/1/2016

		16. OTHER INFORMA	TION					
16.1	16.1 Other Information: WARNING! CAUSES MILD SKIN IRRITATION. CAUSES EYE IRRITATION. For external use only. Use only as directed. Discontinue use immediately if irritation develops Keep away from children. Keep container tightly closed in a cool place. When using do not eat or drink. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. If case of accident or if you fee unwell seek medical advice immediately (show the label where possible). KEEP LOCKED UP AND OUT OF REACH OF CHILDREN. This product is designed and intended for use by a licensed cosmetologist/professional hairdresser only, and carries no warranty expressed or implied if used by others. CAN CAUSE AN ALLERGIC REACTION. Preliminary patch testing is recommended. Tattoos, including black and temporary henna, may increase the risk of allergy, If a severe allergin reaction should occur, immediately seek medical attention. This product must not be used for dyeing the eyelashes o eyebrows; to do so may cause blindness.							
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.						
16.3	Disclaimer:	government regulations must be reviewed for applicab Manufacturing, LLC's knowledge, the information contain accuracy, suitability or completeness is not guaranteed ar provided. The information contained herein relates only	azard Communication Standard, 29 CFR §1910.1200. Other illity to this product. To the best of ShipMate's & JPMS ed herein is reliable and accurate as of this date; however, nd no warranties of any type, either expressed or implied, are to the specific product(s). If this product(s) is combined with lered. Data may be changed from time to time. Be sure to					
16.4	Prepared for:	JPMS Manufacturing, LLC 237 Buttonwood Street Reading, PA 19601 USA Tel: +1 (610) 374-4845 Fax: +1 (610) 373-7101	AUL MITCHELL					
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	ShipMate Dangerous Goods Training & Consulting					

SAFETY DATA SHEET

Page 6 of 6 **PM-038**

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

SDS Revision: 1.3

SDS Revision Date: 7/1/2016

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

EXPOSURE LIMITS IN AIR:

ACGIH	American Conference on Governmental Industrial Hygienists				
C	Ceiling Limit				
ES	Exposure Standard (Australia)				
IDLH	IDLH Immediately Dangerous to Life and Health				
OSHA	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.

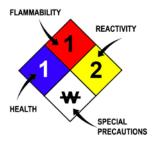
HMIS-III HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

	-	
0	Minimal Hazard	HEALTH
1	Slight Hazard	FLAMMABILITY
2	Moderate Hazard	PHYSICAL HAZARDS
3	Severe Hazard	PERSONAL PROTECTION
4	Extreme Hazard	

PERSONAL PROTECTION RATINGS:

1 2100					_						
Α						G		F			
В						Н		E			
С			Ę,			I		F			
D	B					J	0	F			
Е						κ	F	F			
F			Ę			Χ			uperviso Ig directio		
Sa	fety Glass	es	Splash	Goggles	Ρ		Shield &		GI	oves	5
	Boots		Syntheti	c Apron	Ρ		tive Cloth	ning	Dust R	e spi	rator
Full F	Full Face Respirator						ull Face spirator		Airline H or S		
ОТН	ER STAN	DARD	ABBRE\	IATIONS	:						
	ML	Maxin	num Limit								
	mg/m3	milligr	ams per cu	bic meter							
	NA	Not A	vailable								
	ND	Not D	etermined								
	NE	Not E	stablished								
		Not E									

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



TOXICOLOGICAL INFORMATION:

LD 50	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 _{Io}	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD _{lo} , LD _{lo} , & LD _o or	Lowest dose (or concentration) to cause lethal or toxic effects
TC, TC _o , LC _{lo} , & LC _o	
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 _{ow} or log K _{oc}	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
NOHSC	National Occupational Health and Safety Commission (Australia)
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)
HMIS-III	National Paint & Coatings Association Hazardous Materials Identification System

WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION (WHMIS) SYSTEM:

\bigcirc	۲	٨	\bigcirc	(7)	۲		Ŕ
Class A	Class B	Class C	Class D1	Class D2	Class D3	Class E	Class F
Compressed	Flammable	Oxidizing	Toxic	Irritation	Infectious	Corrosive	Reactive

EC (67/548/EEC) INFORMATION:

1ª		N	¥	•	&	×	×
С	E	F	Ν	0	т	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful

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

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

ppm parts per million SCBA Self-Contained Breathing Apparatus NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

NF Not Found NR No Results

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