

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

SDS Revision: 1.0

SDS Revision Date: 9/29/2016

## 1. PRODUCT &amp; COMPANY IDENTIFICATION

1.1	Product Name:	<b>OPI ProSpa MOISTURE BONDING CERAMIDE SPRAY</b>
1.2	Chemical Name:	Botanical Mixture
1.3	Synonyms:	NA
1.4	Trade Names:	ASM50/ ASM51/ ASM52
1.5	Product Use:	Professional or Sundry Use Only
1.6	Distributor's Name:	OPI Products, Inc.
1.7	Distributor's Address:	13034 Saticoy Street, No. Hollywood, CA 91605 USA
1.8	Emergency Phone:	<b>CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-9300 (CCN 16377)</b>
1.9	Business Phone / Fax:	+1 (818) 759-2400 / +1 (818) 759-5776

## 2. HAZARDS IDENTIFICATION

2.1	Hazard Identification:	<p>This product is not classified as a hazardous substance or as dangerous goods according to the classification criteria of NOHSC: 1008 (2004) and ADG Code (Australia).</p> <p><b>WARNING! CAUSE MILD SKIN IRRITATION. CAUSES EYE IRRITATION.</b></p> <p><u>Classification:</u> Skin Irrit. 3; Eye Irrit. 2B</p> <p><u>Hazard Statements (H):</u> H316 – Causes mild skin irritation. H320 Causes eye irritation.</p> <p><u>Precautionary Statements (P):</u> P264 – Wash thoroughly after handling. P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P332+P313 – If skin irritation or rash occurs: Get medical advice / attention.</p>
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## 3. COMPOSITION &amp; INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m <sup>3</sup> )									OTHER
					ACGIH		NOHSC			OSHA				
					ppm		ppm			ppm				
TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH							
WATER (AQUA/EAU)	7732-18-5	ZC0110000	231-191-2	50-90	NA	NA	NF	NF	NF	NA	NA	NA		
ALCOHOL	64-17-5 Flam. Liq. 2; H225	KQ6300000	200-578-6	5.0-10	1000	3000	1000	1880	NF	100	3000	3300		
GLYCERIN	56-81-5	MA8050000	200-289-5	5.0-10	10	NA	NF	NF	NF	15	NA	NA	RESP FRAC	
DIMETHICONE	141-62-8	NA	205-491-7	1.0-5.0	NA	NA	NF	NF	NF	NA	NA	NA		
PHENYL TRIMETHICONE	18758-91-3	NA	NA	1.0-5.0	NA	NA	NF	NF	NF	NA	NA	NA		
BUTYLENE GLYCOL	107-88-0 Skin Irrit. 3; Eye Irrit. 2B	EK0440000	203-529-7	1.0-5.0	NA	NA	NF	NF	NF	NA	NA	NA		
FRAGRANCE (PARFUM)	NA	NA	NA	0.1-2.5	NA	NA	NF	NF	NF	NA	NA	NA		
CARBOMER	9003-01-4	NA	NA	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
DIMETHICONE/VINYL DIMETHICONE CROSSPOLYMER	1121910-42-6	NA	NA	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
PENTYLENE GLYCOL	5343-92-0	NA	226-285-3	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
LIMONENE	138-86-3 Flam. Liq. 3; Skin Irrit. 2; Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1; H226, H315, H317, H400, H410	CS8100000	205-341-0	0.1-1.0	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN	
SODIUM HYDROXIDE	1310-73-2 Skin Corrosion 1A; Serious Eye Damage 1; H314	WB4900000	215-185-5	0.0-0.1	(2)	NA	(2)	NF	NF	(2)	NA	(10)	(2) NIOSH	
PHENOXYETHANOL	122-99-6 Acute Tox.4; Eye Irrit. 2, H302, H319	NA	204-589-7	0.1-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
AMODIMETHICONE	71450-79-3	NA	NA	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
DISODIUM EDTA	139-33-3 Acute Tox. 4, Skin Irrit. 2, Eye Irrit.2 STOT SE 3; H302, H315, H319, H335	AH4375000	205-358-3	0.1-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
LINALOOL	78-70-6 Flam. Liq. 4; Acute Tox. Oral 5; Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3; H227, H303, H315, H319, H335	RG5775000	201-134-4	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN	
CITRONELLOL	106-22-9 Skin. Irrit. 2; Skin Sens. 1B; Eye Irrit. 2, H315, H317, H319	UT2975000	203-375-0	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN	
CITRIC ACID	77-92-9	GE7350000	201-069-1	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		


### 3. COMPOSITION & INGREDIENT INFORMATION – cont'd

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m <sup>3</sup> )									OTHER
					ACGIH		NOHSC			OSHA				
					TLV	STEL	ppm	ppm	ppm	PEL	STEL	IDLH		
THEOBROMA GRANDIFLORUM SEED BUTTER	394236-97-6	NA	NA	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
GERANIOL	106-24-1	RG5830000	203-377-1	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN	
	Skin Irrit. 2; Skin Sens. 1; Eye Dam. 1; H315, H317, H318													
T-BUTYL ALCOHOL	75-65-0	EI1925000	200-889-7	0.0-0.1	100	150	100	303	NF	100	NA	1600		
	Flam. Liq. 2; Acute Tox. 4 *; Eye Irrit. 2; STOT SE 3; H225, H332, H319, H335													
PERSEA GRATISSIMA (AVOCADO) OIL	8024-32-6	CL2680000	232-428-0	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
ETHYLHEXYL PALMITATE	29806-73-3	RT4740000	249-862-1	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
CAMELLIA SINESIS LEAF EXTRACT	84650-60-2	NA	283-935-9	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
LECITHIN	8002-43-5	OG7565000	232-307-2	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
CAPRYLIC/CAPRIC TRIGLYCERIDE	65381-09-1	NA	265-724-3	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
SODIUM LACTATE	72-17-3	NA	200-772-0	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
SODIUM LAUROYL LACTYLATE	13557-75-0	NA	236-942-6	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
SODIUM CARBONATE	497-19-8	NA	207-838-8	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
GLYCERYL STEARATE	11099-07-3	NA	234-325-6	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
POLYSORBATE 20	9005-64-5	TR7400000	500-018-3	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
DENATONIUM BENZOATE	3734-33-6	NA	223-095-2	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
OLEIC ACID	112-80-1	RG2275000	204-007-1	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
CERAMIDE NP	NA	NA	NA	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
CERAMIDE AP	100403-19-8	NA	309-560-3	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
PHYTOSPHINGOSINE	554-62-1	NA	NA	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
CHOLESTEROL	57-88-8	NA	200-353-2	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
PALMITOYL TETRAPEPTIDE-7	221227-05-0	NA	NA	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		
XANTHAN GUM	11138-66-2	NA	234-394-2	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
ASCORBYL PALMITATE	137-66-6	NA	205-305-4	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
ETHYLHEXYLGLYCERIN	70445-33-9	NA	408-080-2	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
TOCOPHERYL ACETATE	7695-91-2	GA8747000	231-710-0	0.0-1.0	NA	NA	NF	NF	NF	NA	NA	NA		
CERAMIDE EOP	NA	NA	NA	0.0-0.1	NA	NA	NF	NF	NF	NA	NA	NA		

## 4. FIRST AID MEASURES

4.1	First Aid:	<p><b>Ingestion:</b> If ingested, do not induce vomiting. Drink plenty of water or milk IMMEDIATELY. If the patient is vomiting, continue to offer plenty of 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 and amount of the substance that was swallowed.</p> <p><b>Eyes:</b> If product is in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. Open and close eyelid(s) to ensure thorough irrigation. If problem persists, consult a physician.</p> <p><b>Skin:</b> If redness, dryness or other signs of irritation to the skin develop, wash affected skin areas with plenty of warm water and soap. If irritation persists, consult a physician.</p> <p><b>Inhalation:</b> Remove victim to fresh air at once.</p>										
4.2	Effects of Exposure:	<p><b>Ingestion:</b> If product is swallowed, may cause nausea, vomiting and/or diarrhea.</p> <p><b>Eyes:</b> Slightly irritating to the eyes.</p> <p><b>Skin:</b> May be irritating to skin in some sensitive individuals, especially after prolonged contact.</p> <p><b>Inhalation:</b> Inhalation is unlikely; however, vapors of this product may be slightly irritating to some sensitive individuals.</p>										
4.3	Symptoms of Overexposure:	Symptoms of overexposure may include redness, itching, and irritation.										
4.4	Acute Health Effects:	Redness, itching, and irritation of skin at the site of contact for some sensitive individuals.										
4.5	Chronic Health Effects:	No chronic health effects are known, although symptoms and discomfort may occur for several days following overexposure following ingestion. Components in the fragrance, contained in very small quantities in this product, may be mild allergens to some sensitive individuals.										
4.6	Target Organs:	Eyes, Skin										
4.7	Medical Conditions Aggravated by Exposure:	None known										
		<table border="1"> <tr> <td><b>HEALTH</b></td> <td><b>1</b></td> </tr> <tr> <td><b>FLAMMABILITY</b></td> <td><b>0</b></td> </tr> <tr> <td><b>PHYSICAL HAZARDS</b></td> <td><b>0</b></td> </tr> <tr> <td><b>PROTECTIVE EQUIPMENT</b></td> <td><b>A</b></td> </tr> <tr> <td><b>EYES</b></td> <td></td> </tr> </table>	<b>HEALTH</b>	<b>1</b>	<b>FLAMMABILITY</b>	<b>0</b>	<b>PHYSICAL HAZARDS</b>	<b>0</b>	<b>PROTECTIVE EQUIPMENT</b>	<b>A</b>	<b>EYES</b>	
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<b>PROTECTIVE EQUIPMENT</b>	<b>A</b>											
<b>EYES</b>												

## 5. FIREFIGHTING MEASURES

5.1	Fire & Explosion Hazards:	This product is non-flammable. When exposed to high temperatures, may produce hazardous decomposition products such as oxides of carbon (e.g., CO, CO <sub>2</sub> ) and nitrogen (e.g., NO <sub>x</sub> ) and smoke.	
5.2	Extinguishing Methods:	Water, Foam, CO <sub>2</sub> , Dry Chemical	
5.3	Firefighting Procedures:	First responders should wear eye protection. Structural fire fighters must wear full protective equipment and MSHA/NIOSH-approved self-contained breathing apparatus. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas. If necessary, rinse contaminated equipment with soapy water before returning to service.	

## 6. ACCIDENTAL RELEASE MEASURES

6.1	Spills:	<p>Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment.</p> <p>For <u>small spills</u> (e.g., &lt; 1 gallon (3.8 L)) wear appropriate personal protective equipment (e.g., goggles, gloves). 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.</p> <p>For <u>large spills</u> (e.g., ≥ 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 contaminated 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.</p>
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## 7. HANDLING &amp; STORAGE INFORMATION

7.1	Work & Hygiene Practices:	Avoid eye contact.
7.2	Storage & Handling:	Use and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans). Do not store in damaged or unmarked containers or storage devices. Keep containers securely closed when not in use.
7.3	Special Precautions:	Spilled material may present a slipping hazard if left unattended. Clean all spills promptly.

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## 8. EXPOSURE CONTROLS &amp; PERSONAL PROTECTION

8.1	Exposure Limits: ppm (mg/m <sup>3</sup> )	ACGIH		NOHSC			OSHA			OTHER
		TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH	
		CHEMICAL NAME(S)								
		10	NA	NF	NF	NF	15	NA	NA	RESP FRAC
		NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN
		(2)	NA	(2)	NF	NF	(2)	NA	(10)	(2) NIOSH
		NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN
		NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN
		NA	NA	NF	NF	NF	NA	NA	NA	ALLERGEN
		100	150	100	303	NF	100	NA	1600	

8.2 Ventilation & Engineering Controls: When working with large quantities of product, provide adequate ventilation (e.g., local exhaust ventilation, fans). Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes.

8.3 Respiratory Protection: None required if used in a well-ventilated area.

8.4 Eye Protection: Avoid eye contact. Protective eyewear (e.g., safety glasses with side-shield) is recommended at all times when handling this product. Always use protective eyewear when cleaning spills or leaks.

8.5 Hand Protection: None required under normal conditions of use.

8.6 Body Protection: None required under normal conditions of use.

## 9. PHYSICAL &amp; CHEMICAL PROPERTIES

9.1	Appearance:	Spray, clear liquid
9.2	Odor:	Mild odor
9.3	Odor Threshold:	NA
9.4	pH:	NA
9.5	Melting Point/Freezing Point:	NA
9.6	Initial Boiling Point/Boiling Range:	NA
9.7	Flashpoint:	Non-flammable
9.8	Upper/Lower Flammability Limits:	NA
9.9	Vapor Pressure:	NA
9.10	Vapor Density:	NA
9.11	Relative Density:	NA
9.12	Solubility:	Soluble in water
9.13	Partition Coefficient (log P <sub>ow</sub> ):	NA
9.14	Autoignition Temperature:	NA
9.15	Decomposition Temperature:	NA
9.16	Viscosity:	NA
9.17	Other Information:	NA

## 10. STABILITY &amp; REACTIVITY

10.1	Stability:	This product is stable.
10.2	Hazardous Decomposition Products:	Oxides of carbon and nitrogen.
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid:	Open flames, sparks, high heat and direct sunlight.
10.5	Incompatible Substances:	None known.

## 11. TOXICOLOGICAL INFORMATION

11.1	Routes of Entry:	Inhalation: NO	Absorption: YES	Ingestion: YES
11.2	Toxicity Data:	The product has not been tested for specific toxicity data.		
11.3	Acute Toxicity:	See Section 4.4		
11.4	Chronic Toxicity:	See Section 4.5		
11.5	Suspected Carcinogen:	No		
11.6	Reproductive Toxicity:	This product is not reported to produce 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 produce teratogenic effects in humans.		
	Reproductive Toxicity:	This product is not reported to produce reproductive effects in humans.		
11.7	Irritancy of Product:	See Section 4.3		
11.8	Biological Exposure Indices:	NE		
11.9	Physician Recommendations:	Treat symptomatically.		

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**12. ECOLOGICAL INFORMATION**

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

**13. DISPOSAL CONSIDERATIONS**


13.1	Waste Disposal:	Dispose of in accordance with Federal, state and local regulations.
13.2	Special Considerations:	NA

**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	ADGR (AUS):	NOT REGULATED

**15. REGULATORY INFORMATION**

15.1	SARA Reporting Requirements:	This product does not contain any substances subject to SARA Title III, Section 313 reporting requirements.
15.2	SARA Threshold Planning Quantity:	There are no specific Threshold Planning Quantities for the components of this product.
15.3	TSCA Inventory Status:	The components of this product are listed on the TSCA Inventory.
15.4	CERCLA Reportable Quantity (RQ):	<u>Sodium Hydroxide</u> : 1,000 lbs (454 kg)
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:	None of the 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), Michigan Critical Substances List (MI), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know 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

**16. OTHER INFORMATION**

16.1	Other Information:	<b>WARNING! HARMFUL IF SWALLOWED. CAUSE MILD SKIN IRRITATION. CAUSES EYE IRRITATION.</b> Use only as directed. Discontinue use if irritation develops. Wash thoroughly after handling. Do not eat drink or smoke when using this product. IF SWALLOWED: Call a POISON CENTER/doctor, if you feel unwell. Rinse Mouth. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice / attention. <b>KEEP OUT OF REACH OF CHILDREN.</b>
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 Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of ShipMate's & OPI's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness is 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:	<b>OPI Products, Inc.</b> 13034 Saticoy Street No. Hollywood, CA 91605 USA Tel: +1 (818) 759-2400 Fax: +1 (818) 759-5776 <a href="http://www.opi.com">http://www.opi.com</a>
16.5	Prepared by:	<b>ShipMate, Inc.</b> P.O. Box 787 Sisters, Oregon 97759-0787 USA Tel: +1 (310) 370-3600 Fax: +1 (310) 370-5700 <a href="http://www.shipmate.com">http://www.shipmate.com</a>

O·P·I



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Dangerous Goods  
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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
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### 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.
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### HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

### HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

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

HEALTH
FLAMMABILITY
PHYSICAL HAZARDS
PERSONAL PROTECTION

### PERSONAL PROTECTION RATINGS:

A		G	
B		H	
C		I	
D		J	
E		K	
F		X	Consult your supervisor or SOPs for special handling directions.

Safety Glasses	Splash Goggles	Face Shield & Protective Eyewear	Gloves
Boots	Synthetic Apron	Protective Clothing & Full Suit	Dust Respirator
Full Face Respirator	Dust & Vapor Half-Mask Respirator	Full Face Respirator	Airline Hood/Mask or SCBA

### OTHER STANDARD ABBREVIATIONS:

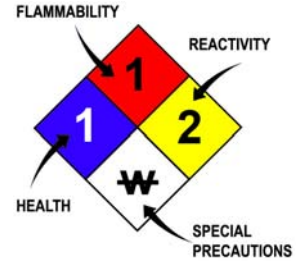
NA	Not Available
NR	No Results
NE	Not Established
ND	Not Determined
ML	Maximum Limit
SCBA	Self-Contained Breathing Apparatus

### NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

<b>FLAMMABILITY LIMITS IN AIR:</b>	
<b>Autoignition Temperature</b>	Minimum temperature required to initiate combustion in air with no other source of ignition
<b>LEL</b>	Lower Explosive Limit - lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source
<b>UEL</b>	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
W	Use No Water
OX	Oxidizer
TREFOIL	Radioactive



### TOXICOLOGICAL INFORMATION:

LD <sub>50</sub>	Lethal Dose (solids & liquids) which kills 50% of the exposed animals
LC <sub>50</sub>	Lethal concentration (gases) which kills 50% of the exposed animal
ppm	Concentration expressed in parts of material per million parts
TD <sub>10</sub>	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD <sub>10</sub> , LD <sub>10</sub> , & LD <sub>0</sub> or TC, TC <sub>01</sub> , LC <sub>10</sub> , & LC <sub>0</sub>	Lowest dose (or concentration) to cause lethal or toxic effects
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
RTECS	Registry of Toxic Effects of Chemical Substances
BCF	Bioconcentration Factor
TL <sub>m</sub>	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	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:

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:

C	E	F	N	O	T	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful

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

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