



# MATERIAL SAFETY DATA SHEET

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

MSDS Revision: 1.0

MSDS Revision Date: 11/01/2012

## 1. PRODUCT IDENTIFICATION

1.1	Product Name: <b>OYA DEVELOPER 1.5%</b>
1.2	Chemical Name: <b>HYDROGEN PEROXIDE AQUEOUS SOLUTION</b>
1.3	Synonyms: <b>NA</b>
1.4	Trade Names: <b>OYA DEVELOPER 1.5%</b>
1.5	Product Use: <b>PROFESSIONAL OR SUNDRY USE ONLY</b>
1.6	Distributor's Name: <b>HELIAS LLC</b>
1.7	Distributor's Address: <b>5701 BUCKINGHAM PKWY SUITE F, CULVER CITY, CA 90230 USA</b>
1.8	Emergency Phone: <b>CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-3887</b>
1.9	Business Phone: <b>+1 (310) 437-4480 / +1 (310) 437-4481</b>

## 2. HAZARD IDENTIFICATION

2.1	<p>Hazard Identification:  <b>This product is NOT classified as a HAZARDOUS SUBSTANCE or as DANGEROUS GOODS according to the classification criteria of NOHSC: 1088 (2004) and ADG Code (Australia). KEEP OUT OF REACH OF CHILDREN. Avoid getting into the eyes. Use only as directed.</b>  <b>WARNING. CAUSES EYE IRRITATION.</b>  <b>Hazard Statements (H): H320 - Causes eye irritation.</b>  <b>Precautionary Statements (P): P262 - Do not get in eyes, on skin, or on clothing. P264 - Wash hands thoroughly with soap and warm water after handling. P235+410 - Keep cool. Protect from sunlight. P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. P333+313 - If skin irritation or a rash occurs: Get medical advice/attention.</b>  <b>Hydrogen Peroxide: Harmful (Xi).</b>  <b>Risk Phrases (R): 22-41-43 Harmful if swallowed. May cause sensitization by skin contact.</b>  <b>Safety Phrases (S): 2-3/7-20-26 - 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.</b></p>							
2.2	Routes of Entry:	Inhalation:	NO	Absorption:	YES	Ingestion:		
2.3	<p>Effects of Exposure:</p> <p><b>INGESTION:</b> If product is swallowed may cause nausea, vomiting and/or diarrhea.</p> <p><b>EYES:</b> Moderately irritating to the eyes. Symptoms of overexposure may include redness, itching, stinging, irritation and watering.</p> <p><b>SKIN:</b> May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) or sensitization in some sensitive individuals.</p> <p><b>INHALATION:</b> May cause mild, transient respiratory irritation. Avoid prolonged contact with concentrated vapors or mists.</p>							
2.4	<p>Symptoms of Overexposure:</p> <p><b>Overexposure in eyes may cause redness, stinging, 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) or sensitization in some sensitive individuals.</b></p>							
2.5	<p>Acute Health Effects:</p> <p><b>Moderate irritation to eyes. Symptoms of overexposure may include redness, itching, stinging, irritation and watering. Moderate irritation to skin near affected areas.</b></p>							
2.6	<p>Chronic Health Effects:</p> <p><b>No harmful or chronic health effects are expected to occur from a single accidental ingestion. Propylene glycol, contained in very small quantities in this product may be mild allergens to some sensitive individuals.</b></p>							
2.7	<p>Target Organs:</p> <p><b>Eyes</b></p>							

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.



# MATERIAL SAFETY DATA SHEET

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

MSDS Revision: 1.0

MSDS Revision Date: 11/01/2012

## 3. COMPOSITION & INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m <sup>3</sup> )								
					ACGIH		NOHSC			OSHA			OTHER
					ppm		ppm			ppm			
TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	TLV	STEL	IDLH						
WATER (AQUA/EAU)	7732-18-5	ZC0110000	231-791-2	60-100	NA	NA	NF	NF	NF	NA	NA	NA	
CETEARYL ALCOHOL	36653-82-4	MM0225000	253-149-0	5-10	NA	NA	NF	NF	NF	NA	NA	NA	
HYDROGEN PEROXIDE	7722-84-1	MX0900000	231-765-0	1-5	1.0	NE	1.0	NF	NF	1.0	NE	75	
GLYCERIN	56-81-5	MA8050000	200-289-5	NA	(10)	NA	(10)	NF	NF	(5)	NA	NA	
PEG-40 CASTOR OIL	61788-85-0	NA	500-147-5	NA	NA	NA	NF	NF	NF	NA	NA	NA	
SODIUM LAURYL SULFATE	151-21-3	WT1050000	205-788-1	NA	NA	NA	NF	NF	NF	NA	NA	NA	
DISODIUM EDTA	139-33-3	NA	205-358-3	NA	NA	NA	NF	NF	NF	NF	NA	NA	
DISODIUM PHOSPHATE	7558-79-4	NA	231-448-7	NA	NA	NA	NF	NF	NF	NF	NA	NA	
ETIDRONIC ACID	2809-21-4	NA	220-552-8	NA	NA	NA	NF	NF	NF	NA	NA	NA	
PHOSPHORIC ACID	7664-38-2	TB6300000	231-633-2	NA	(1)	(3)	(1)	(3)	NF	NA	NA	1000	

## 4. FIRST AID MEASURES

4.1	<p>First Aid:</p> <p><b>INGESTION:</b> DO NOT INDUCE VOMITING. Contact ChemTrec at +1 (703) 527-3887 or the nearest Poison Control Center or local emergency telephone number for assistance and instructions. Seek immediate medical attention. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.</p> <p><b>EYES:</b> If product gets in the eyes, flush eyes thoroughly with copious amounts of water for at least 15 minutes, holding eyelid(s) open to ensure complete flushing. If irritation persists, seek immediate medical attention.</p> <p><b>SKIN:</b> Remove contaminated clothing and wash affected areas with soap and water. If irritation persists, seek prompt medical attention. Do not wear contaminated clothing until after it has been properly cleaned.</p> <p><b>INHALATION:</b> Remove victim to fresh air at once. Under extreme conditions, if breathing stops, perform artificial respiration. Seek immediate medical attention.</p>										
4.2	<p>Medical Conditions Aggravated by Exposure:</p> <p>Pre-existing dermatitis, other skin conditions, and disorders of the target organs (eyes, skin, and respiratory system) or impaired kidney function may be more susceptible to the effects of this substance.</p> <table border="1" style="float: right;"> <tr> <td style="background-color: #0000FF; color: white;"><b>HEALTH</b></td> <td style="text-align: center;"><b>1</b></td> </tr> <tr> <td style="background-color: #FF0000; color: white;"><b>FLAMMABILITY</b></td> <td style="text-align: center;"><b>0</b></td> </tr> <tr> <td style="background-color: #FFA500;"><b>PHYSICAL HAZARDS</b></td> <td style="text-align: center;"><b>1</b></td> </tr> <tr> <td style="background-color: #000000; color: white;"><b>PROTECTIVE EQUIPMENT</b></td> <td style="text-align: center;"><b>B</b></td> </tr> <tr> <td><b>EYES</b></td> <td><b>SKIN</b></td> </tr> </table>	<b>HEALTH</b>	<b>1</b>	<b>FLAMMABILITY</b>	<b>0</b>	<b>PHYSICAL HAZARDS</b>	<b>1</b>	<b>PROTECTIVE EQUIPMENT</b>	<b>B</b>	<b>EYES</b>	<b>SKIN</b>
<b>HEALTH</b>	<b>1</b>										
<b>FLAMMABILITY</b>	<b>0</b>										
<b>PHYSICAL HAZARDS</b>	<b>1</b>										
<b>PROTECTIVE EQUIPMENT</b>	<b>B</b>										
<b>EYES</b>	<b>SKIN</b>										

## 5. FIREFIGHTING MEASURES

5.1	Flashpoint & Method: <b>This product is not flammable.</b>
5.2	Autoignition Temperature: <b>NA</b>
5.3	Flammability Limits: Lower Explosive Limit (LEL): <b>NA</b> Upper Explosive Limit (UEL): <b>NA</b>
5.4	Fire & Explosion Hazards: <b>NA</b>
5.5	Extinguishing Methods: <b>Water Fog, Foam, Dry Chemical, CO<sub>2</sub></b>
5.6	Firefighting Procedures: <b>Fight fires as for surrounding materials. Firefighters should wear a MSHA/NIOSH approved or equivalent self-contained breathing apparatus (SCBA) and protective clothing. Fire should be fought from a safe distance. Keep containers cool until well after the fire is out. Use water spray to cool fire-exposed surfaces and to protect personal. Fight fire upwind. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway.</b>





# MATERIAL SAFETY DATA SHEET

Page 3 of 7  
108

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

MSDS Revision: 1.0

MSDS Revision Date: 11/01/2012

## 6. ACCIDENTAL RELEASE MEASURES

6.1	<p>Spills:</p> <p><b>Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment (PPE).</b></p> <p><b>Small Spills:</b> 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.</p> <p><b>Large Spills:</b> 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.</p>
-----	--

## 7. HANDLING & STORAGE INFORMATION

7.1	<p>Work &amp; Hygiene Practices:</p> <p><b>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 covered. Use chemical goggles if eye contact is possible. Wash unintentional residues with soap and warm water.</b></p>
7.2	<p>Storage &amp; Handling:</p> <p><b>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. Keep away from children at all times</b></p>
7.3	<p>Special Precautions:</p> <p><b>Spilled material may present a slipping hazard if left unattended. Clean all spills promptly.</b></p>

## 8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1	<p>Ventilation &amp; Engineering Controls:</p> <p><b>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).</b></p>
8.2	<p>Respiratory Protection:</p> <p><b>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.</b></p>
8.3	<p>Eye Protection:</p> <p><b>Avoid eye contact. Safety glasses with side shields should be used when handling large quantities (e.g., ≥ 1 gallon) of this product.</b></p>
8.4	<p>Hand Protection:</p> <p><b>None required under normal conditions of use. However, may cause skin irritation in some sensitive individuals. When handling large quantities (e.g., ≥ 1 gallon), wear rubber or impervious plastic gloves.</b></p>
8.5	<p>Body Protection:</p> <p><b>No apron required when handling small quantities. 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.</b></p>

## 9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Density:	NA
9.2	Boiling Point:	> 100 °C (> 212 °F)
9.3	Melting Point:	NA
9.4	Evaporation Rate:	NA
9.5	Vapor Pressure:	ND
9.6	Molecular Weight:	NA
9.7	Appearance & Color:	Clear, colorless liquid with characteristic odor
9.8	Odor Threshold:	ND
9.9	Solubility:	Soluble in water
9.10	pH	2.5 – 3.5
9.11	Viscosity:	NA
9.12	Other Information:	Complies with Federal and State regulations for VOC content.



# MATERIAL SAFETY DATA SHEET

Page 4 of 7  
108

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

MSDS Revision: 1.0

MSDS Revision Date: 11/01/2012

## 10. STABILITY & REACTIVITY

10.1	Stability: <b>Stable under normal conditions; unstable with heat or contamination. Liberation of oxygen gas may result in dangerous pressures.</b>
10.2	Hazardous Decomposition Products: <b>Oxides of carbon (CO, CO<sub>2</sub>) and sulfur (SO<sub>2</sub>). Liberation of gas may result in dangerous pressures.</b>
10.3	Hazardous Polymerization: <b>Will not occur.</b>
10.4	Conditions to Avoid: <b>Open flames, sparks, high heat, incompatible substances and direct sunlight.</b>
10.5	Incompatible Substances: <b>Store away from flammable liquids, flammable solids, aerosols and other incompatible materials (e.g., reducing materials, combustible materials, metal contamination like iron, copper their alloys). Avoid contamination. Do not store any tint, lightener lotion or bleach powder after it has been mixed with developer; the container may rupture. Never return unused material to original container. Avoid extreme heat and ignition sources.</b>

## 11. TOXICOLOGICAL INFORMATION

11.1	Toxicity Data: <b>The product has not been tested for specific toxicity data.</b>
11.2	Acute Toxicity: <b>See section 2.5</b>
11.3	Chronic Toxicity: <b>See section 2.6</b>
11.4	Suspected Carcinogen: <b>No</b>
11.5	Reproductive Toxicity: <b>This product is not reported to produce reproductive toxicity in humans.</b>
	Mutagenicity: <b>This product is not reported to produce mutagenic effects in humans.</b>
	Embryotoxicity: <b>This product is not reported to produce embryotoxic effects in humans.</b>
	Teratogenicity: <b>This product is not reported to produce teratogenic effects in humans.</b>
	Reproductive Toxicity: <b>This product is not reported to produce reproductive effects in humans.</b>
11.6	Irritancy of Product: <b>See Section 2.3</b>
11.7	Biological Exposure Indices: <b>NE</b>
11.8	Physician Recommendations: <b>Treat symptomatically.</b>

## 12. ECOLOGICAL INFORMATION

12.1	Environmental Stability: <b>There is no specific data available for this product.</b>
12.2	Effects on Plants & Animals: <b>There is no specific data available for this product.</b>
12.3	Effects on Aquatic Life: <b>There is no specific data available for this product.</b>

## 13. DISPOSAL CONSIDERATIONS




13.1	Waste Disposal: <b>Products covered by this MSDS, 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.</b>
13.2	Special Considerations: <b>California Waste Code: 331</b>

## 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): <b>NOT REGULATED</b>	
14.2	IATA (AIR): <b>NOT REGULATED</b>	
14.3	IMDG (OCN): <b>NOT REGULATED</b>	
14.4	TDGR (Canadian GND): <b>NOT REGULATED</b>	
14.5	ADR/RID (EU): <b>NOT REGULATED</b>	
14.6	SCT (MEXICO): <b>NOT REGULATED</b>	
14.7	ADGR (AUS): <b>NOT REGULATED</b>	

## 15. REGULATORY INFORMATION

15.1	SARA Reporting Requirements: <b>Hydrogen peroxide is subject to the reporting requirements of SARA Title III, Section 312.</b>	
15.2	SARA Threshold Planning Quantity: <b>Hydrogen peroxide is subject to the reporting requirements of SARA Title III, Section 302.</b>	
15.3	TSCA Inventory Status: <b>All chemical substances of this product are listed on the TSCA inventory or are otherwise exempted from inventory status.</b>	
15.4	CERCLA Reportable Quantity (RQ): <b>NA</b>	
15.5	Other Federal Requirements: <b>This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR subchapter G (Cosmetics).</b>	
15.6	Other Canadian Regulations: <b>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/NDL. None of the components of this product are listed on the Priorities Substances List.</b>	
15.7	State Regulatory Information: <b>Hydrogen Peroxide</b> can be found on the following state criteria list(s): Florida Toxic substances (FL); Illinois Hazardous Substances (IL); Massachusetts Hazardous Substances (MA); Minnesota Hazardous Substances (MN); New Jersey Right-to-Know (NJ); Pennsylvania Right-to-Know (PA), Washington Permissible Exposures (WA) <b>Glycerin</b> is found on the following state criteria list(s): MA, PA, WA <b>Disodium Phosphate</b> is found on the following state criteria list(s): MA, PA <b>No components of this product are listed on the California Proposition 65 lists.</b>	
15.8	67/548/EEC (European Union) and other Requirements: <b>The primary component of this product is listed in Annex I of EU Directive 67/548/EEC:</b> <b>WARNING! CAUSES EYE IRRITATION.</b> <b>Hazard Statements (H):</b> H320 - Causes eye irritation. <b>Precautionary Statements (P):</b> P262 - Do not get in eyes, on skin, or on clothing. P264 - Wash hands thoroughly with soap and warm water after handling. P235+410 - Keep cool. Protect from sunlight. P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. P333+313 - If skin irritation or a rash occurs: Get medical advice/attention. <b>Hydrogen Peroxide:</b> Harmful (Xi). <b>Risk Phrases (R):</b> 22-41-43 Harmful if swallowed. May cause sensitization by skin contact. <b>Safety Phrases (S):</b> 2-3/7-20-26 - 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. <b>HazChem Code:</b> None allocated <b>Poison Schedule:</b> None allocated	  



# MATERIAL SAFETY DATA SHEET







Page 6 of 7  
**108**

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

MSDS Revision: 1.0

MSDS Revision Date: 11/01/2012

## 16. OTHER INFORMATION

16.1	Other Information: <b>For external use only. Use only as directed. Discontinue use immediately if irritation develops.</b>		
16.2	Terms & Definitions: <b>Please see last page of this MSDS.</b>		
16.3	Disclaimer: <b>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 &amp; Helias LLC'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.</b>		
16.4	<table border="0" style="width: 100%;"> <tr> <td style="width: 30%; vertical-align: top;">           Prepared for:  <b>Helias LLC</b>            5701 Buckingham Pkwy, Suite F            Culver City, CA 90230 USA            +1 (310) 437-4480 phone            +1 (310) 437-4482 fax            www.heliascosmetics.com         </td> <td style="width: 70%; text-align: center; vertical-align: middle;">  </td> </tr> </table>	Prepared for: <b>Helias LLC</b> 5701 Buckingham Pkwy, Suite F Culver City, CA 90230 USA +1 (310) 437-4480 phone +1 (310) 437-4482 fax www.heliascosmetics.com	
Prepared for: <b>Helias LLC</b> 5701 Buckingham Pkwy, Suite F Culver City, CA 90230 USA +1 (310) 437-4480 phone +1 (310) 437-4482 fax www.heliascosmetics.com			
16.5	<table border="0" style="width: 100%;"> <tr> <td style="width: 30%; vertical-align: top;">           Prepared by:  <b>ShipMate, Inc.</b>            P.O. Box 787            Sisters, OR. 97759-0787            Tel: +1 (310) 370-3600            Fax: +1 (310) 370-5700            http://www.shipmate.com         </td> <td style="width: 70%; text-align: center; vertical-align: middle;">  </td> </tr> </table>	Prepared by: <b>ShipMate, Inc.</b> P.O. Box 787 Sisters, OR. 97759-0787 Tel: +1 (310) 370-3600 Fax: +1 (310) 370-5700 http://www.shipmate.com	
Prepared by: <b>ShipMate, Inc.</b> P.O. Box 787 Sisters, OR. 97759-0787 Tel: +1 (310) 370-3600 Fax: +1 (310) 370-5700 http://www.shipmate.com			

## 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:

<b>CAS No.</b>	Chemical Abstract Service Number
----------------	----------------------------------

### EXPOSURE LIMITS IN AIR:

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

### FIRST AID MEASURES:

<b>CPR</b>	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

HEALTH
FLAMMABILITY
PHYSICAL HAZARDS
PERSONAL PROTECTION

### PERSONAL PROTECTION RATINGS:

<b>A</b>	
<b>B</b>	
<b>C</b>	
<b>D</b>	
<b>E</b>	
<b>F</b>	

<b>G</b>	
<b>H</b>	
<b>I</b>	
<b>J</b>	
<b>K</b>	
<b>X</b>	Consult your supervisor or SOPs for special handling directions.

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

Note: the dotted circle indicates that this respiratory protective equipment is required for high concentrations or for large volume spills or releases of product.

### OTHER STANDARD ABBREVIATIONS:

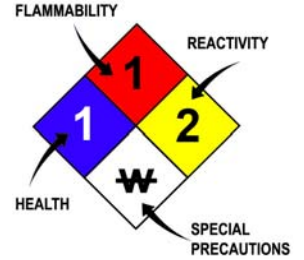
<b>NA</b>	Not Available
<b>NR</b>	No Results
<b>NE</b>	Not Established
<b>ND</b>	Not Determined
<b>ML</b>	Maximum Limit
<b>SCBA</b>	Self-Contained Breathing Apparatus

### 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
<b>ACD</b>	Acidic
<b>ALK</b>	Alkaline
<b>COR</b>	Corrosive
<b>W</b>	Use No Water
<b>OX</b>	Oxidizer
<b>TREFOIL</b>	Radioactive



### TOXICOLOGICAL INFORMATION:

<b>LD50</b>	Lethal Dose (solids & liquids) which kills 50% of the exposed animals
<b>LC50</b>	Lethal concentration (gases) which kills 50% of the exposed animal
<b>ppm</b>	Concentration expressed in parts of material per million parts
<b>TDLo</b>	Lowest dose to cause a symptom
<b>TCLo</b>	Lowest concentration to cause a symptom
<b>TDLo, LDLo, &amp; LDLo or TC, TCo, LCLo, &amp; LCo</b>	Lowest dose (or concentration) to cause lethal or toxic effects
<b>IARC</b>	International Agency for Research on Cancer
<b>NTP</b>	National Toxicology Program
<b>RTECS</b>	Registry of Toxic Effects of Chemical Substances
<b>BCF</b>	Bioconcentration Factor
<b>TLm</b>	Median threshold limit
<b>log Kow or log Koc</b>	Coefficient of Oil/Water Distribution

### REGULATORY INFORMATION:

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

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

<b>A</b>	<b>B</b>	<b>C</b>	<b>D1</b>	<b>D2</b>	<b>D3</b>	<b>E</b>	<b>F</b>
Compressed	Flammable	Oxidizing	Toxic	Irritation	Infectious	Corrosive	Reactive

### EC (67/548/EEC) INFORMATION:

<b>C</b>	<b>E</b>	<b>F</b>	<b>N</b>	<b>O</b>	<b>T+</b>	<b>Xi</b>	<b>Xn</b>
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful

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

<b>GH01</b>	<b>GH02</b>	<b>GH03</b>	<b>GH04</b>	<b>GH05</b>	<b>GH06</b>	<b>GH07</b>	<b>GH08</b>	<b>GH09</b>
Explosive	Flammable	Oxidizer	Pressurized	Corrosive	Toxic	Harmful/Irritating	Health Hazard	Environment