



# MATERIAL SAFETY DATA SHEET

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



MSDS Revision: 3.0

MSDS Revision Date: 10/01/2012

## 1. PRODUCT IDENTIFICATION

1.1	Product Name: <b>MÁRCIA TEIXEIRA ORIGINAL KERATIN TREATMENT</b>
1.2	Chemical Name: <b>NA</b>
1.3	Synonyms: <b>MÁRCIA TEIXEIRA ORIGINAL KERATIN TREATMENT</b>
1.4	Trade Names: <b>MÁRCIA TEIXEIRA ORIGINAL KERATIN TREATMENT</b>
1.5	Product Use: <b>PROFESSIONAL USE ONLY</b>
1.6	Distributor's Name: <b>M &amp; M International</b>
1.7	Distributor's Address: <b>125 N. Congress Ave, Suite 17, Delray Beach, FL 33445 USA</b>
1.8	Emergency Phone: <b>CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-3887</b>
1.9	Business Phone: <b>+1 (561) 272-8443</b>

## 2. HAZARD IDENTIFICATION

2.1	Hazard Identification: This product is classified as a HAZARDOUS SUBSTANCE but not as DANGEROUS GOODS according to the classification criteria of [NOHSC: 1088 (2004)] and ADG Code (Australia). <b>WARNING!</b> May cause an allergic skin reaction. When used as directed, this product releases formaldehyde. <u>Hazard Statements (H):</u> H317 – May cause an allergic skin reaction. When used as directed, this product releases formaldehyde. <u>Precautionary Statements (P):</u> P201 – Obtain special instructions before use. P202 – Do not handle until all safety precautions have been read and understood. P261 – Avoid breathing dust/fume/gas/mist/vapours/spray. P272 – Contaminated work clothing should not be allowed out of the workplace. P280 – Wear protective gloves/protective clothing/eye protection/face protection. P281 – Use personal protective equipment as required. P302+P352 – IF ON SKIN: Wash with soap and water. P308+P313 - IF exposed or concerned: Get medical advice/attention. P333+P313 – If skin irritation or a rash occurs: Get medical advice/attention. P321 – Specific treatment (see section 4.1 of this Safety Data Sheet). P363 – Wash contaminated clothing before reuse. P405 – Store locked up. P501 – Dispose of contents/container to licensed, authorized treatment, storage and disposal facility (see Section 13.1 of this Safety Data Sheet).		 
2.2	Routes of Entry: Inhalation: <b>YES</b> Absorption: <b>YES</b> Ingestion: <b>YES</b>		
2.3	Effects of Exposure: <b>INGESTION:</b> If product is swallowed, may cause nausea, vomiting and/or diarrhea. <b>EYES:</b> Direct contact may cause mild irritation. <b>SKIN:</b> May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals. <b>INHALATION:</b> When exposed to high heat (e.g., flat iron), may cause sore throat, coughing, and shortness of breath. Causes irritation and sensitization of the respiratory tract.		
2.4	Symptoms of Overexposure: <b>Overexposure in eyes may cause redness, itching and watering. Symptoms of skin overexposure may include redness, itching, and irritation of affected areas. This product may cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals.</b>		
2.5	Acute Health Effects: <b>Moderate irritation to eyes. Moderate irritation to skin near affected areas.</b>		
2.6	Chronic Health Effects: <b>No harmful or chronic health effects are expected to occur from a single accidental ingestion. Frequent or prolonged exposure to product may cause hypersensitivity leading to contact dermatitis. Repeated or prolonged skin contact with product may cause an allergic reaction in some people. No harmful or chronic health effects related to the respiratory system are expected. Proper ventilation must be used to ensure the OSHA TLV's are not exceeded. Avoid prolonged contact to concentrated vapors.</b>		
2.7	Target Organs: <b>Respiratory system.</b>		

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: 3.0

MSDS Revision Date: 10/01/2012

## 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	ppm	ppm	ppm	ppm	ppm	
TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	TLV	STEL	IDLH						
WATER (AQUA)	7732-18-5	ZC0110000	231-191-2	NA	NA	NA	NF	NF	NF	NA	NA	NA	
HYDROLYZED KERATIN	69430-36-0	NA	274-001-1	NA	NA	NA	NF	NF	NF	NA	NA	NA	
PROPYLENE GLYCOL	57-55-6	TY200000	200-338-0	NA	NA	NA	NF	NF	NF	NA	NA	NA	
METHYLENE GLYCOL	463-57-0	NA	207-339-5	≤ 2.0	0.3	NA	1.0	2.0	NF	0.75	2.0	20.0	0.1 NIOSH
CETEARYL ALCOHOL	67762-27-0	NA	267-008-6	NA	NA	NA	NF	NF	NF	NA	NA	NA	
SILICON COPOLYMER	NA	NA	NA	NA	NA	NA	NF	NF	NF	NA	NA	NA	
CETRIMONIUM CHLORIDE	112-02-7	NA	203-928-6	NA	NA	NA	NF	NF	NF	NA	NA	NA	
OCTOXYNOL-40	9002-93-1	YM0616666	NA	NA	NA	NA	NF	NF	NF	NA	NA	NA	
ISOLAURETH-6	3055-96-7	MP478050	221-282-3	NA	NA	NA	NF	NF	NF	NA	NA	NA	
PROPRIETARY AMINO ACID BLEND	NA	NA	NA	≤ 1.0	NA	NA	NF	NF	NF	NA	NA	NA	
FRAGRANCE	NA	NA	NA	≤ 1.0	NA	NA	NF	NF	NF	NA	NA	NA	
CI 19140 (FD & C YELLOW #5)	1934-21-0	UQ6400000	217-699-5	≤ 1.0	NA	NA	NF	NF	NF	NA	NA	NA	
OTHER COMPONENTS PRESENT IN LESS THAN 1% CONCENTRATION					BAL	THE REMAINING COMPONENTS DO NOT CONTRIBUTE ANY SIGNIFICANT ADDITIONAL HAZARDS							

## 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 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 pre-existing skin or eye disorders.</p> <p>Pre-existing allergies to methylene glycol/formalin or formaldehyde may be aggravated by exposure to this product.</p> <p>Overexposure to product may cause lung damage and aggravate pulmonary conditions.</p> <p>Do no use on broken skin or irritated areas. In some individuals contact with skin may aggravate skin diseases such as eczema and contact dermatitis.</p>										
<table border="1"> <tr> <td><b>HEALTH</b></td> <td>1</td> </tr> <tr> <td><b>FLAMMABILITY</b></td> <td>0</td> </tr> <tr> <td><b>REACTIVITY</b></td> <td>0</td> </tr> <tr> <td><b>PROTECTIVE EQUIPMENT</b></td> <td>C</td> </tr> <tr> <td>EYES</td> <td>SKIN</td> </tr> </table>		<b>HEALTH</b>	1	<b>FLAMMABILITY</b>	0	<b>REACTIVITY</b>	0	<b>PROTECTIVE EQUIPMENT</b>	C	EYES	SKIN
<b>HEALTH</b>	1										
<b>FLAMMABILITY</b>	0										
<b>REACTIVITY</b>	0										
<b>PROTECTIVE EQUIPMENT</b>	C										
EYES	SKIN										

## 5. FIREFIGHTING MEASURES

5.1	Flashpoint & Method: <b>This product is not flammable.</b>
5.2	Autoignition Temperature: <b>ND</b>
5.3	Flammability Limits: Lower Explosive Limit (LEL): <b>NE</b> Upper Explosive Limit (UEL): <b>NE</b>
5.4	Fire & Explosion Hazards: <b>This product is not a flammable liquid. However, if involved in a fire, this product may ignite and decompose to form toxic gases (e.g., CO, CO<sub>2</sub>, and NO<sub>x</sub>, formaldehyde).</b>
5.5	Extinguishing Methods: <b>Water Fog, Foam, Dry Chemical, CO<sub>2</sub></b>
5.6	Firefighting Procedures: <b>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.</b>





# MATERIAL SAFETY DATA SHEET

Page 3 of 7  
MMI-001

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

MSDS Revision: 3.0

MSDS Revision Date: 10/01/2012

## 6. ACCIDENTAL RELEASE MEASURES

6.1	<p>Spills:</p> <p>Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment.</p> <p>For <b>small spills</b> (e.g., &lt; 1 gallon (3.785 liters)) wear appropriate personal protective equipment (e.g., goggles, gloves). Maximize ventilation (open doors and windows). 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 <b>large spills</b> (e.g., ≥ 1 gallon (3.785 liters)), deny entry to all unprotected individuals. Dike and contain spill with inert material (e.g., sand or earth). Transfer product 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>
-----	--

## 7. HANDLING & STORAGE INFORMATION

7.1	<p>Work &amp; Hygiene Practices:</p> <p>Avoid eye contact. Avoid breathing vapors. Where protective gloves and avoid direct skin contact when possible. Do not eat, drink, or smoke when handling product. Wash hands thoroughly after use.</p>
7.2	<p>Storage &amp; Handling:</p> <p>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 away from heat and direct sunlight. Keep containers securely closed when not in use.</p>
7.3	<p>Special Precautions:</p> <p>Spilled material may present a slipping hazard if left unattended. Clean all spills promptly.</p>

## 8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1	<p>Ventilation &amp; Engineering Controls:</p> <p>Use with adequate ventilation (e.g., local exhaust ventilation, open doors and windows). Ensure appropriate decontamination equipment is available (e.g., sink, safety shower, eye-wash station). Use in a chemical fume hood when working with large quantities of product and provide adequate ventilation (e.g., local exhaust ventilation, fans).</p>
8.2	<p>Respiratory Protection:</p> <p>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.</p>
8.3	<p>Eye Protection:</p> <p>Avoid eye contact. Safety glasses with side shields should be used when handling large quantities (e.g., ≥ 1 gallon (3.785 liters)) of this product.</p>
8.4	<p>Hand Protection:</p> <p>None required under normal conditions of use. However, may cause skin irritation in some sensitive individuals. When product is being mixed, applied or handled, wear gloves made of rubber (nitrile), vinyl or other impervious material.</p>
8.5	<p>Body Protection:</p> <p>No apron required when handling small quantities. When handling large quantities (e.g., ≥ 3.785 liters), eye wash stations and deluge showers should be available.</p>

## 9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Density:	1.1-1.2
9.2	Boiling Point:	NA
9.3	Melting Point:	NA
9.4	Evaporation Rate:	NA
9.5	Vapor Pressure:	NA
9.6	Molecular Weight:	NA
9.7	Appearance & Color:	Low viscosity lotion, light yellow color, with a slight pungent odor.
9.8	Odor Threshold:	NA
9.9	Solubility:	Partially soluble in water.
9.10	pH	4.0-5.0
9.11	Viscosity:	NA
9.12	Other Information:	NA



# MATERIAL SAFETY DATA SHEET

Page 4 of 7  
MMI-001

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

MSDS Revision: 3.0

MSDS Revision Date: 10/01/2012

## 10. STABILITY & REACTIVITY

10.1	Stability: <b>This product is stable when stored in a cool dry location out of direct sunlight and away from other sources of heat.</b>
10.2	Hazardous Decomposition Products: <b>Oxides of carbon (CO, CO<sub>2</sub>) and sulfur (SO<sub>2</sub>)</b>
10.3	Hazardous Polymerization: <b>Will not occur.</b>
10.4	Conditions to Avoid: <b>Open flames, sparks, high heat, direct sunlight and close proximity to incompatible substances.</b>
10.5	Incompatible Substances: <b>High temperatures, sources of heat and direct sunlight.</b>

## 11. TOXICOLOGICAL INFORMATION

11.1	Toxicity Data: <b>This product has not been tested on animals to obtain toxicological data. There are toxicology data for the components of this product, which are found in the scientific literature. These data have not been presented in this document.</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>Product releases formaldehyde (gas), a suspected carcinogen, which is listed as: OSHA - Carcinogen; NTP - Known Human Carcinogen (NTP 12<sup>th</sup> Report – June 10, 2011); IARC - Human Sufficient Evidence, Animal Sufficient Evidence, Group 1; ACGIH - A2 - Suspected Human Carcinogen; EC - Category 3.</b> <b>Formaldehyde is a hazardous chemical listed in the National Toxicology Program (NTP) Annual Report on Carcinogens and has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs.</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>The following statements refer to the environmental fate of <u>methylene glycol</u>. When released into the soil, this material is expected to leach into groundwater. When released into water, this material is expected to readily biodegrade. When released into water, this material is not expected to evaporate significantly. This material is not expected to significantly bioaccumulate. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals.</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>Fish Toxicity: 4960 µg/L 96 hour(s) LC<sub>50</sub> (Mortality) Striped bass (<i>Morone saxatilis</i>) Invertebrate Toxicity: 14000 µg/L 48 hour(s) EC<sub>50</sub> (Physiological) Water flea (<i>Daphnia magna</i>) Algal Toxicity: 4500 µg/L 48 hour(s) (Population Growth) Cryptomonad (<i>Chilomonas paramecium</i>) Fate and Transport: K<sub>ow</sub>: 151.36 (log = 2.18) (estimated from water solubility); K<sub>oc</sub>: 481.95 (log = 2.69) (estimated from water solubility)</b>



# MATERIAL SAFETY DATA SHEET

Page 5 of 7  
MMI-001

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

MSDS Revision: 3.0

MSDS Revision Date: 10/01/2012

## 13. DISPOSAL CONSIDERATIONS

- 13.1 Waste Disposal:  
**Dispose of in accordance with federal, state and local regulations.**
- 13.2 Special Considerations:  
**Dispose of in accordance with federal, state and local regulations.**

## 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, CTDGR, SCT and ADGR.

- 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 (Australia):  
**NOT REGULATED**

## 15. REGULATORY INFORMATION

- 15.1 U.S. EPA SARA Reporting Requirements:  
**This product contains methylene glycol a substance subject to SARA 313 reporting requirements.**
- 15.2 U.S. EPA SARA Threshold Planning Quantity:  
**Formaldehyde: 27.7 kg (500 lbs) TPQ – SARA 302**
- 15.3 TSCA Inventory Status:  
**All chemical substances of this product are listed on the TSCA inventory or are otherwise exempted from inventory status.**
- 15.4 U.S. EPA CERCLA Reportable Quantity (RQ):  
**Formaldehyde: 45.4 kg (100 lbs) - SARA 304**
- 15.5 Other U.S. Federal Requirements:  
**This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR subchapter G (Cosmetics).**  
**Clean Air Act: This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.**  
**Clean Water Act: None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.**  
**OSHA Process Safety TQ: 454 kg (1000 lbs)**
- 15.6 Other Canadian Regulations:  
**This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR. The components of this product are not listed on the DSL/NDSL.**
- 15.7 U.S. State Regulatory Information:  
**When used as directed, this product releases formaldehyde.**  
**Methylene Glycol is on the following state criteria lists: California, New Jersey, Pennsylvania, Minnesota, and Massachusetts.**  
**Formaldehyde (gas) is listed on the following state criteria lists:**  
**California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65); Minnesota Hazardous Substances List; Pennsylvania Right-To-Know List; Rhode Island Right-To-Know List.**  
**California Proposition 65 Warning: WARNING: Use of this product, as directed, may expose you to formaldehyde (gas), a chemical known to the State of California to cause cancer.**





# MATERIAL SAFETY DATA SHEET

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

MSDS Revision: 3.0

MSDS Revision Date: 10/01/2012

## 15. REGULATORY INFORMATION – cont'd

15.8 67/548/EEC (European Union) and Australia NOHSC:2011 (2003) Requirements:  
 The primary components of this product are not listed in Annex I of EU Directive 67/548/EEC.  
Formaldehyde (1 % ≤ C < 5 %) is listed in Annex I of EU Directive 67/548/EEC.  
Harmful (Xn). Risk Phrases (R): R40-Limited evidence of a carcinogenic effect. R43 - May cause sensitisation by skin contact.  
**WARNING!** May cause an allergic skin reaction. When used as directed, this product releases formaldehyde.  
Hazard Statements (H): H317 – May cause an allergic skin reaction. When used as directed, this product releases formaldehyde.  
Precautionary Statements (P): P201 – Obtain special instructions before use. P202 – Do not handle until all safety precautions have been read and understood. P261 – Avoid breathing dust/fume/gas/mist/vapours/spray. P272 – Contaminated work clothing should not be allowed out of the workplace. P280 – Wear protective gloves/protective clothing/eye protection/face protection. P281 – Use personal protective equipment as required. P302+P352 – IF ON SKIN: Wash with soap and water. P308+P313 - IF exposed or concerned: Get medical advice/attention. P321 – Specific treatment (see section 4.1 of this Safety Data Sheet). P363 – Wash contaminated clothing before reuse. P405 – Store locked up. P501 – Dispose of contents/container to licensed, authorized treatment, storage and disposal facility (see Section 13.1 of this Safety Data Sheet).  
HazChem Code: None allocated.  
Poison Schedule: None allocated.



## 16. OTHER INFORMATION

16.1 Other Information:  
**Do not ingest.** If swallowed, do not induce vomiting; seek medical attention. Avoid eye contact. Keep out of reach of children. If redness or other signs of adverse reaction occur, discontinue use immediately. If irritation persists, seek medical attention. **FOR PROFESSIONAL USE ONLY.**

16.2 Terms & Definitions:  
**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 & M&M International, Inc.'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:  
 M & M International  
 125 N. Congress Ave., Suite 17  
 Delray Beach, FL 33445 USA  
 Tel: +1 (561) 272-8443  
 Fax: +1 (561) 272-8669  
 www.marciakeratin.com



16.5 Prepared by:  
 ShipMate, Inc.  
 P.O. Box 787  
 780 Buckaroo Trail, Suite D  
 Sisters, OR 97759-0787  
 Tel: +1 (310) 370-3600  
 Fax: +1 (310) 370-5700  
 http://www.shipmate.com







# MATERIAL SAFETY DATA SHEET

Page 7 of 7  
MMI-001

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

MSDS Revision: 3.0

MSDS Revision Date: 10/01/2012

## 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

HEALTH
FLAMMABILITY
PHYSICAL HAZARDS
PERSONAL PROTECTION

#### PERSONAL PROTECTION RATINGS:

A	
B	
C	
D	
E	
F	

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

Boots	Synthetic Apron	Full Suit	Dust Respirator
<p>Note: the dotted circle indicates that this respiratory protective equipment is required for high concentrations or for large volume spills or releases of product.</p>			

### OTHER STANDARD ABBREVIATIONS:

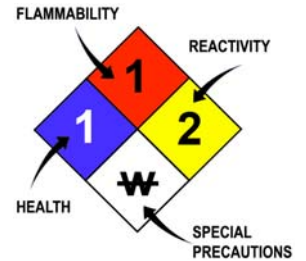
NA	Not Available
NR	No Results
NE	Not Established
ND	Not Determined
ML	Maximum Limit
SCBA	Self-Contained Breathing Apparatus

### NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:	
Autoignition Temperature	Minimum temperature required to initiate combustion in air with no 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
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>01</sub>	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD <sub>01</sub> , LD <sub>01</sub> , & LD <sub>01</sub> or TC, TC <sub>01</sub> , LC <sub>01</sub> , & LC <sub>01</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:

A	B	C	D1	D2	D3	E	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:

GH501	GH502	GH503	GH504	GH505	GH506	GH507	GH508	GH509
Explosive	Flammable	Oxidizer	Pressurized	Corrosive	Toxic	Harmful Irritating	Health Hazard	Environment