HAIR SYSTEMS INC.	SAFETY DATA SHEET	Page 1 of 7
Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & EU Standards	SDS Revision: 1.2	SDS Revision Date: 1/1/2018

1. PRODUCT & COMPANY IDENTIFICATION

1.1	Product Name:	**JPMS DUAL PURPOSE LIGHTENER**
1.2	Chemical Name:	Persulfate Blend
1.3	Synonyms:	Blend 0025
1.4	Trade Names:	JPMS Dual Purpose Lightener
1.5	Product Uses & Restrictions:	Professional Cosmetic Use Only
1.6	Distributor's Name:	Hair Systems, Inc.
1.7	Distributor's Address:	30 Park Avenue, Englishtown, NJ 07726 USA
1.8	Emergency Phone:	**CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-9300 (CCN 10069)**
1.9	Business Phone / Fax:	+1 (732) 446-2202 / +1 (732) 446-7968

2. HAZARDS IDENTIFICATION

2.1 Hazard Identification:

This product is classified as a hazardous substance and as dangerous goods according to the classification criteria of NOHSC: 1008 (2004) and ADG Code (Australia).

DANGER! MAY INTENSIFY FIRE; OXIDIZER. HARMFUL IF SWALLOWED. CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE IRRITATION. MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED. MAY CAUSE RESPIRATORY IRRITATION.

Classification: Oxidizing Solid – Category 3; Acute Toxicity – Category 4; Skin Irritation – Category 2; Eye Irritation – Category 2A; Respiratory Sensitization – Category 1; Skin Sensitization – Category 1; Single Target Organ Toxicity (Single Exposure) – Category 3.

Hazard Statements (H): H272 – May intensify fire; oxidizer. H302 – Harmful if swallowed. H315 – Causes skin irritation. H317 – May cause an allergic skin reaction. H319 – Causes serious eye irritation. H334 – May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 – May cause respiratory irritation.

Precautionary Statements (P): P210 - Keep away from heat/sparks/open flames/hot surfaces – No smoking. P220 - Keep/Store away from clothing/cotton/combustible materials. P261 - Avoid breathing dust/fumes. P264 - Wash hands and exposed skin areas with soap and warm water thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area. P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P284 - If necessary, wear respiratory protection. P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P302+P352 - IF ON SKIN: Wash with soap and water. P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. P312 - Call a POISON CENTER or doctor/physician if you feel unwell. P321 - Specific treatment (see section 4 of the Safety Data Sheet or the product label). P330 - Rinse mouth. P332+P313 - If skin irritation occurs: Get medical advice/attention. P333+P313 - If skin irritation or a rash occurs: Get medical advice/attention. P337+P313 - If eye irritation persists get medical advice/attention. P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. P362+P364 - Take off contaminated clothing and wash before reuse. P370+P378 - In case of fire: Use CO_2, Halon (if permitted), dry chemical, or foam for extinction. P403+P233 - Store in a well ventilated place. Keep container tightly closed. P405 - Store locked up. P501 - Dispose of contents/container to licensed treatment, storage or disposal facility (TSDF).

3. COMPOSITION & INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m³) ACGIH ppm TLV	ACGIH ppm STEL	NOHSC ppm ES-TWA	NOHSC ppm ES-STEL	NOHSC ppm ES-PEAK	OSHA ppm PEL	OSHA ppm STEL	OSHA ppm IDLH	OTHER
POTASSIUM PERSULFATE	7727-21-1	SE0400000	231-781-8	30-50	(0.1)	NA	NF	NF	NF	NA	NA	NA	
	Ox. Sol. 3; Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2A; Resp. Sens. 1; Skin Sens. 1; STOT SE 3; H272, H302, H315, H317, H319, H334, H335												
SODIUM SILICATE	1344-09-8	NA	215-687-4	10-30	NA	NA	NF	NF	NF	NA	NA	NA	
	Acute Tox. 4; Skin Irrit. 2; Eye Dam. 1; H302, H315, H318												
SODIUM METASILICATE	6834-92-0	VV9275000	229-912-9	1-10	NA	NA	NF	NF	NF	NA	NA	NA	
	Acute Tox. 4; Skin Corr. 1B; Serious Eye Dam. 1; STOT SE 3; H302, H314, H335												
SODIUM PERSULFATE	7775-27-1	SE0535000	231-892-1	1-10	NA	NA	NF	(0.01)	NF	NA	NA	NA	
	Ox. Sol. 3; Acute Tox. 4; Skin Irrit. 2; Skin Sens. 1; Eye Irrit. 2; Resp. Sens. 2; H272, H302, H315, H317, H319, H334												

4. FIRST AID MEASURES

4.1	First Aid:	Ingestion: If ingested, do not induce vomiting. Drink plenty of water or milk. If the patient is vomiting, continue to offer plenty of water or milk. Never give water or milk to an unconscious person. If large quantities are ingested, contact the nearest Poison Control Center or local emergency number. Provide an estimate of the time and amount of the substance that was swallowed. Get medical attention immediately. Eyes: If product is in the eyes, flush with copious amounts of water for at least 15 minutes. Remove contact lenses if present and easy to do, continue flushing. Open and close eyelid(s) to ensure thorough irrigation. If problem persists, consult a physician. Skin: If redness, dryness or other signs of irritation to the skin develop, remove contaminated clothing and wash affected skin areas with plenty of warm water and soap. If irritation persists, consult a physician. Inhalation: Give oxygen as necessary and get medical attention.
4.2	Effects of Exposure:	Ingestion: May cause irritation in mouth and throat. Swallowing may cause evolution of oxygen which may cause injury by distention of the esophagus or stomach. May cause nausea, vomiting and diarrhea. Eyes: May cause irritation, redness, stinging and tearing. When bleach powders are mixed with peroxides or developers, the resulting mixture may cause severe eye irritation and possible eye injury. Skin: May be irritating to skin, especially after prolonged contact. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) upon prolonged or repeated exposure. Inhalation: Prolonged exposure may cause irritation in nose and throat with chest discomfort, coughing and difficulty breathing. Excessive inhalation of dust may result in sensitization and irritation to respiratory tract. May cause asthma-like symptoms in some sensitive individuals.
4.3	Symptoms of Overexposure:	Symptoms of skin overexposure may include redness, itching, and irritation of affected areas. Overexposure in eyes may cause redness, itching and watering. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) upon prolonged or repeated exposure.
4.4	Acute Health Effects:	Moderate irritation to skin near affected areas. This product causes serious eye irritation.
4.5	Chronic Health Effects:	The material may accentuate any pre-existing dermatitis condition.
4.6	Target Organs:	Eyes, skin & respiratory system.
4.7	Medical Conditions Aggravated by Exposure:	Acute health hazards may be delayed. Most common symptoms include irritating properties to eyes, respiratory system and skin. Existing dermatological conditions (such as eczema) and respiratory conditions (such as bronchial asthma and/or bronchitis) may be aggravated.

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARDS	1
PROTECTIVE EQUIPMENT	B
EYES / SKIN	

5. FIREFIGHTING MEASURES

5.1	Fire & Explosion Hazards:	**DANGER! MAY INTENSIFY FIRE; OXIDIZER.** Upon decomposition, persulfates yield oxygen and may thereby stimulate combustion of flammable and combustible materials. Extinguish fires with media appropriate for the burning material. Product contains oxidizing materials. Residual product on towels, sponges or mops may cause fire. Rinse towels thoroughly before disposal. Rinse sponges and mops thoroughly before storage. Persulfate compounds may ignite and undergo decomposition in the presence of moisture and heat. Spray and flood decomposing material with large quantities of water.
5.2	Extinguishing Methods:	CO_2, Halon (if permitted), Dry Chemical, Foam, as authorized. Water and/or foam – typically a Class A or Class B extinguisher should be sufficient for the product. However, selection of a fire extinguisher should also be appropriate to address the location of the fire and equipment involved. Flood with water and use water spray to cool fire-exposed containers and structures.
5.3	Firefighting Procedures:	This product is an oxidizer and may intensify fire. 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. HazChem Code: 2P Hazard Identification Number: 50

6. ACCIDENTAL RELEASE MEASURES

6.1	Spills:	Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment. Plastic or rubber gloves, respirator, eye protection and apron may be required for clean-up of large spills. Small Spills: (e.g., ≤ 1.0 lbs (0.45 kg)). Wear appropriate protective equipment including gloves and protective eyewear. Use a non-combustible material such as vermiculite or sand to soak up the product and place into a container for later disposal. Do not use water or a material such as "speedy dry" to soak up material. Sweep up material using non-sparking materials (e.g., plastic brooms, shovels, dustpans) and place into a plastic container or plastic liner within another container. Large Spills: (e.g., > 1.0 lbs (0.45 kg)) Keep incompatible materials (e.g., organics such as oil) away from spill. Stay upwind and away from spill or release. Isolate immediate hazard area and keep unauthorized personnel out of area. Stop spill or release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant.

7. HANDLING & STORAGE INFORMATION

7.1	Work & Hygiene Practices:	Do not eat, drink or smoke when handling this product. Wash thoroughly after handling. Avoid contact with flammable or combustible materials. Avoid contamination from any source, including metals, dust and organic materials. Keep bulk materials covered. Use chemical goggles if eye contact is possible. Wash unintentional residues with soap and warm water.
7.2	Storage & Handling:	Keep this material away from heat, sparks and open flame. 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 (49 °C). Keep away from incompatible substances. Protect containers from physical damage. To avoid unintentional spraying keep cap in place when not in use. Store away from incompatible materials (see Section 10).
7.3	Special Precautions:	Spilled material may present a slipping hazard if left unattended. Clean all spills promptly. Do not allow stored material to come into contact with moisture (keep lids properly affixed on product stored in plastic tubs). Do not store metal utensils inside containers of product.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1 Exposure Limits: ppm (mg/m^3)

	ACGIH		NOHSC			OSHA			OTHER
CHEMICAL NAME(S)	TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH	
POTASSIUM PERSULFATE	(0.1)	NA	NF	NF	NF	NA	NA	NA	
SODIUM PERSULFATE	(0.1)	NA	NF	(0.01)	NF	NA	NA	NA	

8.2	Ventilation & Engineering Controls:	When working with large quantities of product, provide adequate ventilation (e.g., local exhaust ventilation, fans), to keep exposure below the airborne exposure limits. Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes.	
8.3	Respiratory Protection:	No special respiratory protection is required under typical circumstances of use or handling. If necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR §1910.134, or applicable U.S. state regulations, or the appropriate standards of Canada, its provinces, E.C. member states, or Australia.	
8.4	Eye Protection:	Avoid contact. Wear protective eyewear (e.g., safety glasses with side-shield) at all times when handling this product. Always use protective eyewear when cleaning spills or leaks. Contact lenses pose a special hazard; soft lenses may absorb and concentrate irritants.	
8.5	Hand Protection:	If anticipated that prolonged & repeated skin contact will occur during use of this product, wear latex or rubber gloves for routine industrial use. If necessary, refer to U.S. OSHA 29 CFR §1910.138, the appropriate standards of Canada, of the E.C. member states.	
8.6	Body Protection:	No special body protection is required under typical circumstances of use and handling. Wear appropriate protective clothing to prevent skin contact, (e.g., boots, lab coat, apron, coveralls) as needed. If necessary, refer to appropriate standards of Canada, the E.C. member states, or U.S. OSHA.	

9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Appearance:	White powder
9.2	Odor:	Bleach odor. Sandlewood fragrance.
9.3	Odor Threshold:	NA
9.4	pH:	10.3-10.9
9.5	Melting Point/Freezing Point:	NA
9.6	Initial Boiling Point/Boiling Range:	NA
9.7	Flashpoint:	NA
9.8	Upper/Lower Flammability Limits:	NA
9.9	Vapor Pressure:	NA
9.10	Vapor Density:	NA
9.11	Relative Density:	< 0.5
9.12	Solubility:	4.7 g in 100 mL water
9.13	Partition Coefficient (log P_{ow}):	NA
9.14	Autoignition Temperature:	NA
9.15	Decomposition Temperature:	NA
9.16	Viscosity:	NA
9.17	Other Information:	%VOC @ 21 °C (70 °F): 0

10. STABILITY & REACTIVITY

10.1	Stability:	Unstable. Gradually decomposes losing oxygen. Decomposes more rapidly at higher temperatures. Metals other than stainless steel are apt to cause decomposition of persulfate solutions. Generates heat when mixed with acid. May react with ammonium salt solutions resulting in evolution of ammonia gas. Liberation of oxygen gas may result in dangerous pressures.
10.2	Hazardous Decomposition Products:	If exposed to extremely high temperatures, products of thermal decomposition may include irritating vapors and toxic gases (e.g., CO, CO_2, and SO_2). Liberation of gas (e.g., oxygen) may result in dangerous pressures. Decomposed by moisture to form oxygen and ozone. Burning may produce nitrogen oxides, sulfur oxides, and sulfuric acid.
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid:	Open flames, sparks, high heat and direct sunlight. Moisture, combustible material, heat, flame, ignition sources, shock, friction, powdered metals, phosphorus, hydrides, organic matter, halogens, acids, alkalis, and incompatibles.
10.5	Incompatible Substances:	Reducing agents, organics, some acids, flammable materials. Do not use metallic bowls or utensils when mixing this product. Avoid contamination with moisture, combustible or organic materials (e.g., sawdust, damp paper towels).

11. TOXICOLOGICAL INFORMATION

11.1	Routes of Entry:	Inhalation:	YES	Absorption:	YES	Ingestion:	YES
11.2	Toxicity Data:	This product has NOT been tested on animals to obtain toxicology data. Toxicology data, found in scientific literature, is available for some of the components of the product but is not presented in this document.					
11.3	Acute Toxicity:	Moderate irritation to skin near affected areas. This product causes serious eye irritation.					
11.4	Chronic Toxicity:	The material may aggravate any pre-existing skin condition (e.g., dermatitis). This product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) upon prolonged or repeated exposure.					
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 cause teratogenic effects in humans.					
	Reproductive Toxicity:	This product is not reported to cause reproductive effects in humans.					
11.7	Irritancy of Product:	The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) upon prolonged or repeated exposure.					
11.8	Biological Exposure Indices:	NE					
11.9	Physician Recommendations:	Treat symptomatically.					

12. ECOLOGICAL INFORMATION

12.1	Environmental Stability:	The components of this product will slowly degrade over time into a variety of organic compounds. Specific environmental data available for the components of this product are available, but are not presented in this Safety Data Sheet.
12.2	Effects on Plants & Animals:	There are no specific data available for this product.
12.3	Effects on Aquatic Life:	This product was not tested on animals. Specific aquatic test data is available for the some of the components of this product, but are not presented in this Safety Data Sheet.

13. DISPOSAL CONSIDERATIONS

13.1	Waste Disposal:	Waste disposal must be in accordance with appropriate Federal, state, and local regulations.
13.2	Special Considerations:	U.S. EPA Waste Number: D001 (characteristic - ignitable)

14. TRANSPORTATION INFORMATION

The basic description (ID Number, proper shipping name, hazard class & division, packing group) is shown for each mode of transportation. Additional descriptive information may be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR.

14.1	49 CFR (GND):	UN1479, OXIDIZING SOLID, N.O.S. (potassium persulfate, sodium persulfate), 5.1, III (LTD QTY, IP VOL ≤ 5.0 kg); or CONSUMER COMMODITY, ORM-D – until 01/01/2021
14.2	IATA (AIR):	UN1479, OXIDIZING SOLID, N.O.S. (potassium persulfate, sodium persulfate), 5.1, III (LTD QTY, IP VOL ≤ 1.0 kg)
14.3	IMDG (OCN):	UN1479, OXIDIZING SOLID, N.O.S. (potassium persulfate, sodium persulfate), 5.1, III (LTD QTY, IP VOL ≤ 5.0 kg)
14.4	TDGR (Canadian GND):	UN1479, OXIDIZING SOLID, N.O.S. (potassium persulfate, sodium persulfate), 5.1, III (LTD QTY, IP VOL ≤ 5.0 kg); or "LIMITED QUANTITY" or "QUANTITÉ LIMITÉE" or "LTD QTY" or "QUANT LTÉE" (IP VOL ≤ 5.0 kg)
14.5	ADR/RID (EU):	UN1479, OXIDIZING SOLID, N.O.S. (potassium persulfate, sodium persulfate), 5.1, III (LTD QTY, IP VOL ≤ 5.0 kg)
14.6	SCT (MEXICO):	UN1479, SOLIDO COMBURENTE, N.E.P. (persulfato de potasio, persulfato de sodio), 5.1, III (CANTIDAD LIMITADA, IP VOL ≤ 5.0 kg)
14.7	ADGR (AUS):	UN1479, OXIDIZING SOLID, N.O.S. (potassium persulfate, sodium persulfate), 5.1, III (LTD QTY, IP VOL ≤ 5.0 kg)

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 Qty:	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:	NA
15.5	Other Federal Requirements:	This material does not contain any hazardous air pollutants. None of the components in this product are listed as priority pollutants under the CWA. None of the components in this product are listed as toxic pollutants under the CWA.
15.6	Other Canadian Regulations:	This product has been classified according to the hazard criteria of the CPR and the Safety Data Sheet 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 C, D2B (Oxidizing Agent, Other Toxic Effects) 
15.7	State Regulatory Information:	Potassium Persulfate is found on the following state criteria lists: Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), and Pennsylvania Right-to-Know List (PA). Sodium Persulfate is found on the following state criteria lists: NJ and PA. 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), 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:	The primary components of this product are listed in Annex I of EU Directive 67/548/EEC: Potassium Persulfate: Oxidizer, Harmful (O, Xn). Risk Phrases (R): 8-22-36/37/38-42/43 – Contact with combustible material may cause fire. Harmful if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact. Safety Phrases (S): (2)-3-7-17-22-24-26-37-51 - Keep out of the reach of children. Keep in a cool place. Keep container tightly closed. Keep away from combustible material. Do not breathe dust. Avoid contact with skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves. Use only in well-ventilated areas. Sodium Persulfate: Oxidizer, Harmful (O, Xn). Risk Phrases (R): 8-22-36/37/38-42/43 – Contact with combustible material may cause fire. Harmful if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact. Safety Phrases (S): (2)-3-7-17-22-24-26-37-51 - Keep out of the reach of children. Keep in a cool place. Keep container tightly closed. Keep away from combustible material. Do not breathe dust. Avoid contact with skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves. Use only in well-ventilated areas. 

16. OTHER INFORMATION

16.1	Other Information:	**DANGER! MAY INTENSIFY FIRE; OXIDIZER. HARMFUL IF SWALLOWED. CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE IRRITATION. MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED. MAY CAUSE RESPIRATORY IRRITATION.** Keep away from heat/sparks/open flames/hot surfaces – No smoking. Keep/Store away from clothing/cotton/combustible materials. Avoid breathing dust/fumes. Wash hands and exposed skin areas with soap and warm water thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. If necessary, wear respiratory protection. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. IF ON SKIN: Wash with soap and water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Call a POISON CENTER or doctor/physician if you feel unwell. Specific treatment (see section 4 of the Safety Data Sheet or the product label) Rinse mouth. If skin irritation occurs: Get medical advice/attention. If skin irritation or a rash occurs: Get medical advice/attention. If eye irritation persists get medical advice/attention. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. Take off contaminated clothing and wash before reuse. In case of fire: Use CO_2, Halon (if permitted), dry chemical, or foam for extinction. Store in a well ventilated place. Keep container tightly closed. Store locked up. **KEEP LOCKED UP AND OUT OF REACH OF CHILDREN**
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 & Hair Systems' 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:	**Hair Systems, Inc.** 30 Park Avenue Englishtown, NJ 07726 USA Tel: +1 (732) 446-2202 Fax: +1 (732) 446-7968 http://www.hairsystemsinc.com
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

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	Immediately Dangerous to Life and Health
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
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.**

OTHER STANDARD ABBREVIATIONS:

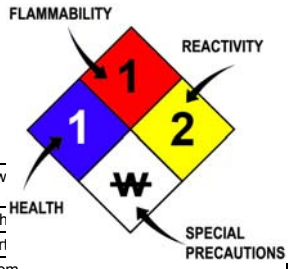
ML	Maximum Limit
mg/m3	milligrams per cubic meter
NA	Not Available
ND	Not Determined
NE	Not Established
NF	Not Found
NR	No Results
ppm	parts per million
SCBA	Self-Contained Breathing Apparatus

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_{50}	Lethal Dose (solids & liquids) w s
LC_{50}	Lethal concentration (gases) wh
ppm	Concentration expressed in part
TD_{lo}	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD_{lo}, LD_{lo}, & LD_o or TC, TC_o, LC_{lo}, & LC_o	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_m	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

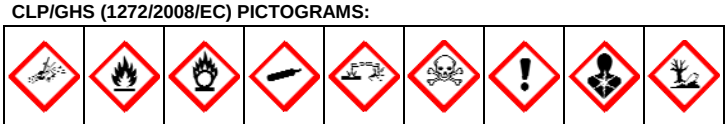
WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION (WHMIS) SYSTEM:

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