MATRIX MSDS PRODUCT CLASSIFICATION		
Product Category	Product	MSDS
Cleansers - Toners - Masques	Solutionist Nostain Color Stain Remover	09-053
	Total Results Pro Solutionist No Stain	09-053
Conditioners - Treatments	Amplify Color XL Conditioner	NON-HAZ
	Amplify Conditioner	NON-HAZ
	Biolage Age Rejuvenating Densifying Concentrate	NON-HAZ
	Biolage Colorcaretherapie Cera Repair	NON-HAZ
	Biolage Colorcaretherapie Cera-repair	NON-HAZ
	Biolage Colorcaretherapie Color Bloom Masque	NON-HAZ
	Biolage Colorcaretherapie Color Bloom Masque	NON-HAZ
	Biolage Colorcaretherapie Color Care Conditioner	NON-HAZ
	Biolage Colorcaretherapie Delicate Care Conditioner	NON-HAZ
	Biolage Colorcaretherapie Delicate Care Masque	NON-HAZ
	Biolage Colorcaretherapie Delicate Care Organic Oil	NON-HAZ
	Biolage Exquisite Oil Crème Conditioner	NON-HAZ
	Biolage Exquisite Oil Repelnishing Treatment	99-001
	Biolage Fortetherapie Cera Repair	NON-HAZ
	Biolage Fortetherapie Cera Repair	NON-HAZ
	Biolage Fortetherapie Fortifying Leave In Treatment	NON-HAZ
	Biolage Fortetherapie Intensive Strengthening Masque	NON-HAZ
	Biolage Fortetherapie Strengthening Conditioner	NON-HAZ
	Biolage Hydratherapie Aqua Immersion Crème Masque	NON-HAZ
	Biolage Hydratherapie Cera Repair	NON-HAZ
	Biolage Hydratherapie Cera-repair	NON-HAZ
	Biolage Hydratherapie Conditioning Balm	NON-HAZ
	Biolage Hydratherapie Daily Leave In Tonic	NON-HAZ
	Biolage Hydratherapie Detangling Solution	NON-HAZ
	Biolage Hydratherapie Hydra Seal Leave-In Crème	NON-HAZ
	Biolage Hydratherapie Ultra Hydrating Balm	NON-HAZ
	Biolage Rejuvatherapie Age Rejuvenating Conditioner	NON-HAZ
	Biolage Rejuvatherapie Age Rejuvenating Intensive Masque	NON-HAZ
	Biolage Rejuvenating Leave-in Densifier	NON-HAZ
	Biolage Scalptherapie Antidandruff Conditioner	NON-HAZ
	Biolage Scalptherapie Antidandruff Leave In Treatment	99-021
	Biolage Scalptherapie Cooling Mint Conditioner	NON-HAZ
	Biolage Scalptherapie Oil Control Treatment	NON-HAZ
	Biolage Smooththerapie Deep Smoothing Conditioner	NON-HAZ
	Biolage Smooththerapie Deep Smoothing Leave-in Cream	NON-HAZ
	Biolage Smooththerapie Deep Smoothing Masque	NON-HAZ
	Biolage Smooththerapie Smoothing Conditioner	NON-HAZ
	Biolage Sunsorials Protective Daily Mist	99-021
	Biolage Sunsorials Protective Hair Oil	99-001
	Biolage Sunsorials Sun Repair Treatment	NON-HAZ
	Biolage Volumatherapie Bodifying Conditioner	NON-HAZ
	Biolage Volumatherapie Full-Lift Volumizing Conditioner	NON-HAZ
	Color.Smart Conditioner	NON-HAZ
	Color.Smart Intensive Masque	NON-HAZ
	Curl Life Conditioner	NON-HAZ
	Curl Life Extra Intense Conditioner	NON-HAZ
	Logics Age Revitalize 01 Normal Conditioner	NON-HAZ
	Logics Age Revitalize 02 Dry Conditioner	NON-HAZ
	Logics Age Revitalize 03 Very Dry Conditioner	NON-HAZ
	Logics Color DNA Color Nourishing Conditioner	NON-HAZ
	Logics Color DNA Color Vitalizing Treatment Masque	NON-HAZ

MATRIX MSDS PRODUCT CLASSIFICATION		
Product Category	Product	MSDS
	Logics Color DNA Laminating Topcoat	NON-HAZ
	Logics Color DNA Leave In Conditioning Protector	NON-HAZ
	Logics Color DNA Reconstructing Volume Wrap	NON-HAZ
	Logics Color DNA Resurfacing Treatment	NON-HAZ
	Matrix Men Moisture Rev Daily Moisture Conditioner	NON-HAZ
	Shade Memory Rich Brunette Foam Conditioner	99-011
	Shade Memory Sparkling Blonde Foam Conditioner	99-011
	Shade Memory Vivid Red Foam Conditioner	99-011
	Sleek Conditioner	NON-HAZ
	Sleek Extra Intense Conditioner	NON-HAZ
	Sleek Miracle Reconstructor	NON-HAZ
	Solutionist 5+Protopack Restructurizing	NON-HAZ
	Solutionist Colorsure	NON-HAZ
	Solutionist Instacure Leave-In Treatment	NON-HAZ
	Solutionist Scalp Protect	NON-HAZ
	Solutionist So Bright Conditioner	NON-HAZ
	Total Results Amplify Conditioner	NON-HAZ
	Total Results Color Condition	NON-HAZ
	Total Results Color Mask	NON-HAZ
	Total Results Color Miracle Treat 12	NON-HAZ
	Total Results Curl Conditioner	NON-HAZ
	Total Results Moisture Conditioner	NON-HAZ
	Total Results Moisture Moisture Cure 2 - Phase	99-002
	Total Results Pro Solutionist 5+ Protopak	NON-HAZ
	Total Results Pro Solutionist Colorsure	NON-HAZ
	Total Results Pro Solutionist Instacure	NON-HAZ
	Total Results Pro Solutionist Total Treat Cream Mask	NON-HAZ
	Total Results Repair Break Fix Leave-In Elixir	NON-HAZ
	Total Results Repair Conditioner	NON-HAZ
	Total Results Repair Strength Pak Intensive Treatment	NON-HAZ
	Total Results Sleek Conditioner	NON-HAZ
	Vavoom Bust Out Body Bodifying Conditioner	NON-HAZ
Haircolor	Color Additions	99-023
	Color Sync	99-023
	Logics Color DNA Colorcreme	99-023
	Logics Color DNA Imprints	99-023
	Logics Permanent Colorcremes	99-023
	Prizms Plus	99-023
	SoColor	99-023
	SoColor Extra Blonding Creme	99-023
	SoRed	99-023
	WonderBrown	99-023
Shampoos	Amplify Color XL Shampoo	99-009
	Amplify Volumizing Shampoo	99-009
	Biolage Colorcaretherapie Color Care Shampoo	99-009
	Biolage Colorcaretherapie Delicate Care Shampoo	99-009
	Biolage Exquisite Oil Micro-Oil Shampoo	99-009
	Biolage Fortetherapie Strengthening Shampoo	99-009
	Biolage Hydratherapie Hydrating Shampoo	99-009
	Biolage Hydratherapie Ultra Hydrating Shampoo	99-009
	Biolage Normalizing Shampoo	99-009
	Biolage Rejuvatherapie Age Rejuvenating Shampoo	99-009
	Biolage Scalptherapie Antidandruff Shampoo	99-009
	Biolage Scalptherapie Cooling Mint Shampoo	99-009

MATRIX MSDS PRODUCT CLASSIFICATION		
Product Category	Product	MSDS
	Biolage Smooththerapie Deep Smoothing Shampoo	99-009
	Biolage Smooththerapie Smoothing Shampoo	99-009
	Biolage Sunsorials After Sun Shampoo	99-009
	Biolage Volumatherapie Bodifying Shampoo	99-009
	Biolage Volumatherapie Full-Lift Volumizing Shampoo	99-009
	Color.Smart Shampoo	99-009
	Curl Life Shampoo	99-009
	Design Pulse Clean Remix Instant Dry Shampoo	99-010
	Logics Age Revitalize 01 Normal Shampoo	99-009
	Logics Age Revitalize 02 Dry Shampoo	99-009
	Logics Age Revitalize 03 Very Dry Shampoo	99-009
	Logics Color DNA Clarifying Shampoo	99-009
	Logics Color DNA Color Nourishing Lite Shampoo	99-009
	Logics Color DNA Color Nourishing Shampoo	99-009
	Matrix Men Clean Rush Daily Moisture Shampoo	99-009
	Sleek Shampoo	99-009
	Solutionist Alternate Action Clarifying Shampoo	99-009
	Solutionist So Bright Shampoo	99-009
	Solutionist SoSilver Shampoo	99-009
	Total Results Amplify Shampoo	99-009
	Total Results Color Care Shampoo	99-009
	Total Results Color Care So Silver Shampoo	99-009
	Total Results Curl Shampoo	99-009
	Total Results Moisture Shampoo	99-009
	Total Results Pro Solutionist Alternate Action Shampoo	99-009
	Total Results Pro Solutionist Concentrated Shampoo	99-009
	Total Results Repair Shampoo	99-009
	Total Results Sleek Shampoo	99-009
	Vavoom Bust Out Body Bodifying Shampoo	99-009
Special Effects - Lighteners - Developers	Color Sync Activator 9 Volume	99-028
	Color Sync Activator 20 Volume	99-028
	Colorgraphics 2 High Speed Lightening Powder	99-030
	Colorgraphics Pigments	NON-HAZ
	Colorgraphics Promoter - 22 volume	99-028
	Colorgraphics Promoter - 8 volume	99-028
	Creative Control Color Thickener	NON-HAZ
	Light Reactions Powder Lightener	99-030
	Logics Color DNA Generator - 0 volume	99-028
	Logics Color DNA Generator - 10 volume	99-028
	Logics Color DNA Generator - 20 volume	99-028
	Logics Color DNA Generator - 30 volume	99-029
	Logics Color DNA Generator - 40 volume	99-029
	Logics Color DNA Generator - 5 volume	99-028
	Logics Gel Lightener	99-023
	Logics Luminous Cream Generator - 20 volume	99-028
	Logics Luminous Cream Generator - 30 volume	99-029
	Logics Luminous Cream Generator - 40 volume	99-029
	Logics Luminous Cream Lightener	11-071
	Matrix Cream Developer - 10 volume	99-028
	Matrix Cream Developer - 20 volume	99-028
	Matrix Cream Developer - 30 volume	99-029
	Matrix Cream Developer - 40 volume	99-029
	Solite - 10 volume	99-028

MATRIX MSDS PRODUCT CLASSIFICATION		
Product Category	Product	MSDS
	Solite - 20 volume	99-028
	Solite - 30 volume	99-029
	Solite - 40 volume	99-029
	Solutionist ColorErase	99-030
	V-light	99-030
	WonderBrown Developer - 20 vol	99-028
	WonderBrown Developer - 30 vol	99-029
Styling Products	Amplify Foam Volumizer	99-011
	Amplify Full Body Texturizer	NON-HAZ
	Amplify Hair Spray	99-012
	Amplify Thick Boost Gel	NON-HAZ
	Amplify Thicklift Liquid Volumizer	NON-HAZ
	Amplify Volumizing Root Lifter	NON-HAZ
	Biolage Cera-Heat Thermal-Active Repair Cream	99-001
	Biolage Cera-Heat Thermal-Active Repair Gloss	99-001
	Biolage Colorcaretherapie Shine Shake Spray	99-002
	Biolage Colorcaretherapie Shine Shake Spray	99-002
	Biolage Colortherapie Shielding Shine Mist	99-021
	Biolage Complete Control Hair Spray	99-012
	Biolage Curl Defining Elixir	NON-HAZ
	Biolage Finish Spritz	99-021
	Biolage Freeze Fix Hairspray	99-012
	Biolage Gelee	NON-HAZ
	Biolage Hydratherapie Hydra Seal Softening Mist	99-015
	Biolage Hydro-Foaming Styler	99-011
	Biolage Molding Souffle	NON-HAZ
	Biolage Sculpting Jelly	NON-HAZ
	Biolage Shine Endure Spritz	99-021
	Biolage Smoothing Shine Milk	NON-HAZ
	Biolage Smooththerapie Deep Smoothing Serum	99-001
	Biolage Smooththerapie Smoothing Gel	NON-HAZ
	Biolage Smooththerapie Smoothing Serum	99-001
	Biolage Sunsorials Protective Sun Gel	NON-HAZ
	Biolage Thermal-Active Setting Spray	NON-HAZ
	Biolage Volumatherapie Bodifying Creme Gel	NON-HAZ
	Biolage Volumatherapie Bodifying Spray Gel	NON-HAZ
	Biolage Volumatherapie Full-Lift Spray In Volumizer	NON-HAZ
	Biolage Volumizing Mousse	99-011
	Curl Life All-Day Reactivator	99-021
	Curl Life Body-Shaping Foam	99-011
	Curl Life Contouring Cream	NON-HAZ
	Curl Life Contouring Milk	NON-HAZ
	Curl Life Spiraling Spray-gel	09-055
	Design Pulse Beach Clay	NON-HAZ
	Design Pulse Fiber Shuffle	NON-HAZ
	Design Pulse Fiber Shuffle	NON-HAZ
	Design Pulse Get Action Wax	99-012
	Design Pulse Go Big	99-011
	Design Pulse Hard Lock Finishing Spray	99-012
	Design Pulse Hard Lock Finishing Spray	99-012
	Design Pulse Iron In	99-021
	Design Pulse Mega Dust	NON-HAZ
	Design Pulse Mega Dust	NON-HAZ
	Design Pulse Mix In Shine	99-015

MATRIX MSDS PRODUCT CLASSIFICATION		
Product Category	Product	MSDS
	Design Pulse Play Back	NON-HAZ
	Design Pulse Rock 'n Hold	NON-HAZ
	Design Pulse Thermo Glide	NON-HAZ
	Logics Color DNA Blow Sculpt Fine Cream	NON-HAZ
	Logics Color DNA Blow Sculpt Medium Cream	NON-HAZ
	Logics Color DNA Bodyframe Shaping Mousse	99-011
	Logics Color DNA Creative Fix Spray	99-012
	Logics Color DNA Densation Liquid Volume	NON-HAZ
	Logics Color DNA Full Scale Root Finisher	99-021
	Logics Color DNA Gelastic Gel Cream	NON-HAZ
	Logics Color DNA Geometric Design Gel	NON-HAZ
	Logics Color DNA Glossiance Shine Serum	99-001
	Logics Color DNA Materialize Texturizing Spray	NON-HAZ
	Logics Color DNA Matthesive Sculpting Whip	NON-HAZ
	Logics Color DNA Polisheen Gloss Balm	NON-HAZ
	Logics Color DNA Seismic Crushed Gel	NON-HAZ
	Logics Color DNA Textreme Contouring Paste	NON-HAZ
	Matrix Men All-Style Wax	NON-HAZ
	Matrix Men Clean Shine Pomade	NON-HAZ
	Matrix Men Energel Flexible Styling Gel	NON-HAZ
	Matrix Men Firm Fix Gel	NON-HAZ
	Matrix Men Switch Up Gel-wax	NON-HAZ
	Sleek Blow Down Extreme Crème	NON-HAZ
	Sleek Blow Down Lite Lotion	NON-HAZ
	Sleek Iron Smoother	99-021
	Sleek Sealing Serum	99-001
	Solutionist Proforma Hair Spray	99-012
	Solutionist Vital Control Hair Spray	99-012
	Total Results Amplify Foam Volumizer	99-011
	Total Results Amplify Hairspray	99-012
	Total Results Amplify Wonder Boost Root Lifter	NON-HAZ
	Total Results Curl Contouring Lotion	NON-HAZ
	Total Results Curl Super DeFrizzer Gel	NON-HAZ
	Total Results Proforma Hairspray	99-012
	Total Results Sleek Blow Down Crème	NON-HAZ
	Total Results Sleek Iron Smoother	99-021
	Total Results Sleek Silk Wonder Oil	99-001
	Vavoom Design Pulse Glow To Pieces	NON-HAZ
	Vavoom Design Pulse Loosely Defined	NON-HAZ
	Vavoom Design Pulse Messy Couture	NON-HAZ
	Vavoom Design Pulse Switch Flicks	NON-HAZ
	Vavoom Extra Full Freezing Spray	99-012
	Vavoom Freezing Spray	99-012
	Vavoom Gold Heat Blow-In Control	NON-HAZ
	Vavoom Gold Heat Blow-In Volume	NON-HAZ
	Vavoom Gold Heat Iron-In Control	99-021
	Vavoom Gold Heat Iron-In Volume	99-021
	Vavoom Height Of Glam Volumizing Foam	99-011
	Vavoom Hold My Body Forming Gel	99-021
	Vavoom Shape Maker	99-012
	Vavoom Shape Maker Extra-Hold	99-012
	Vavoom Take Me Higher Root Riser	99-011
Texture - Perms - Straighteners	Biolage Acid Wave - Activator	99-024

MATRIX MSDS PRODUCT CLASSIFICATION		
Product Category	Product	MSDS
	Biolage Acid Wave - Waving Formula	99-025
	Biolage Acid Wave - Neurtalizer	99-027
	Biolage Color Wave - Activator	99-024
	Biolage Color Wave - Waving formula	99-025
	Biolage Color Wave - Neutralizer	99-027
	Butter Blend Relaxer - Normal	99-006
	Butter Blend Relaxer - Mild	99-006
	Opti Care Extra-Conditioning Alkaline Wave - Waving Formula	99-025
	Opti Care Extra-Conditioning Alkaline Wave - Interim Treatment	NON-HAZ
	Opti Care Extra-Conditioning Alkaline Wave - Neutralizer	99-027
	Opti Color - Color Treated formula	99-025
	Opti Color - Highlighted formula	99-025
	Opti Color - Interim treatment	NON-HAZ
	Opti Color - Neutralizer	99-027
	Opti Smooth - Smoothing treatment - normal	99-025
	Opti Smooth - Smoothing treatment - resistant	99-025
	Opti Smooth - Smoothing treatment - sensitized	99-025
	Opti Smooth - Neutralizing lotion	99-027
	Opti Smooth - Pre-treatment	NON-HAZ
	Opti Smooth - Post-treatment	NON-HAZ
	Opti Thermic Self-Heating Exothermic Wave - Waving formula	99-025
	Opti Thermic Self-Heating Exothermic Wave - Thermal Equalizer	99-027
	Opti Thermic Self-Heating Exothermic Wave - Neutralizer	99-027
	Opti Thermic Self-Heating Exothermic Wave - Interim treatment	NON-HAZ
	Opticurl Extra Body Acid Wave - Neutralizer	99-027
	Opticurl Extra Body Acid Wave - Waving Lotion	99-025
	Opticurl Extra Body Acid Wave - Activator	99-024
	Opticurl Variable Action Acid Wave - Neutralizer	99-027
	Opticurl Variable Action Acid Wave - Waving Lotion	99-025
	Opticurl Variable Action Acid Wave - Activator	99-024

Material Safety Data Sheet
May be used to comply with
OSHA's Hazard Communication Standard
29 CFR 1910.1200. Standard must be
consulted for specific requirements

U.S. Department of Labor **#99-001**
Occupation Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY
Products Containing Semi-Volatile or Emulsified Silicones

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name L'Oreal USA Products, Inc.	Emergency Telephone Number (800) 535-5053 (Int'l 352-323-3500)
Address (Number, Street, City, State, and ZIP Code) 111 Terminal Avenue	Telephone Number For Information (732) 499-2746
Clark, NJ 07066	Date Prepared February 6, 2006 (replaces 10-18-04)
	Signature of Preparer (optional) C. Jennings

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity;Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Cyclomethicone	None			≤60%
Cyclopentasiloxane	None			≤90%
Cyclohexasiloxane	None			≤60%
Dimethicone	None			<10%
Dimethicone Copolyol	None			<5%

Section III - Physical/Chemical Characteristics

Boiling Point (Liquids)	140-200 F	Specific Gravity (H2O = 1)	~1
Vapor Pressure (mm Hg)	N/A	Melting Point (Solids)	125-145°F
Vapor Density (AIR = 1)	>1	Evaporation Rate (Butyl Acetate = 1)	>1

Solubility in Water
Insoluble

Appearance and Odor
1. White to off-white cream/lotion with a pleasant odor. 2. Semi-viscous clear to translucent liquid with a faint odor. 3. Silicone containing antiperspirant/deodorant sticks, lipsticks, and eyeliners.

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
141°F - 200 F (closed cup)	Cyclomethicone	0.5%	8.0%

Extinguishing Media
Carbon dioxide, dry chemical, foam, and/or water spray.

Special Fire Fighting Procedures
Fires involving bulk product may be extinguished with carbon dioxide, dry chemical, and/or foam. Water spray may be used to soak corrugated shipping containers of finished product if involved in a fire.

Unusual Fire and Explosion Hazards
None; however, observe usual precautions for handling of combustible materials. For manufacturing, minimize airborne vapor levels through engineering controls.

Section V - Reactivity Data

#99-001

Stability			Conditions to Avoid	
	Unstable			Avoid heat, fire, and other sources of ignition.
	Stable	X		

Incompatibility (Materials to Avoid)

Oxidizing agents and nitric acid.

Hazardous Decomposition or Byproducts

Silicon dioxide, carbon monoxide, carbon dioxide.

Hazardous Polymerization			Conditions to Avoid
	May Occur		
	Will Not Occur	X	None known.

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	Yes	Yes	Not likely.

Health Hazards (Acute and Chronic)

May cause eye irritation. Although product is non-toxic, ingestion of large quantities may produce temporary gastrointestinal disturbance and diarrhea. No adverse effects would be expected following dermal exposure.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	No	No	No

Signs and Symptoms of Exposure

Possible eye irritation; temporary gastrointestinal disturbance and diarrhea.

Medical Conditions Generally Aggravated by Exposure

None known.

Emergency and First Aid Procedure

If in eyes, flush with plenty of water for at least 15 minutes. Get medical attention if irritation occurs. If swallowed, drink one or two glasses of water or milk and consult a physician. If on skin, wash with soap and water.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled

Eliminate all sources of ignition. Dike and contain the free liquid, if any, and absorb on vermiculite, spill pillows, or other absorbants. Containerize spent absorbants in suitable containers for disposal. Wash spill area with detergent solution as necessary.

Waste Disposal Method

Products containing semi-volatile or emulsified silicones are not regulated as hazardous wastes when intended for disposal. However, incineration is the recommended method of treatment and disposal for such products.

Precautions to be Taken in Handling and Storage

Store bulk quantities in a cool, well-ventilated room. Limit quantities on hand to the extent possible. Store away from possible sources of ignition. Observe usual precautions relative to static electricity. Avoid oxidizing agents and nitric acid.

Other Precautions

For external use only. Use only as directed.

Section VIII - Control Measures

For routine manufacturing/filling operations, none generally required. For spills, wear an approved self-contained breathing apparatus.

Ventilation			
	Local Exhaust	Explosion-Proof	Special
	Mechanical(General)	Explosion-Proof	Other

Protective Gloves

Rubber or plastic gloves for bulk quantities.

Other Protective Clothing or Equipment

Safety glasses and protective clothing for bulk quantities.

Work/Hygienic Practices

OSHA hazard classification: Combustible
DOT classification:

Bulk – Combustible Liquids, N.O.S.
(cyclomethicone/cyclopentasiloxane/cyclohexasiloxane)
NA 1993 PG III

Finished Product – Not regulated

Material Safety Data Sheet

May be used to comply with
OSHA's Hazard Communication Standard
29 CFR 1910.1200. Standard must be
consulted for specific requirements

U.S. Department of Labor **#99-002**
Occupation Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY
Liquid Petroleum-Based Cosmetics and Cleansers

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name	Emergency Telephone Number
L'Oreal USA Products, Inc.	(800) 535-5053 (Int'l 352-323-3500)
Address (Number, Street, City, State, and ZIP Code)	Telephone Number For Information
111 Terminal Avenue	(732) 499-2745
	Date Prepared
Clark, NJ 07066	April 6, 2004
	Signature of Preparer (optional)
	GCD

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity;Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Petroleum Distillates		400 ppm		35-75%

Section III - Physical/Chemical Characteristics

Boiling Point		Specific Gravity (H2O = 1)	
	175-200°F		~0.9
Vapor Pressure (mm Hg)		Melting Point	
	N/A		50-130°F
Vapor Density (AIR = 1)		Evaporation Rate	
	>1	(Butyl Acetate = 1)	<1

Solubility in Water
Insoluble

Appearance and Odor
Water thin to viscous liquid with a petroleum-like odor.

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
80-140°F (closed cup)	Petroleum Distillates	1.0%	7.0%

Extinguishing Media
Carbon dioxide, dry chemical, foam, and/or water spray.

Special Fire Fighting Procedures
Fires involving bulk product may be extinguished with carbon dioxide, dry chemical, and/or foam. Water spray should be used to soak corrugated shipping containers of finished product if involved in a fire.

Unusual Fire and Explosion Hazards
None; however, observe usual precautions for handling of flammable materials. For manufacturing, minimize airborne vapor levels through engineering controls.

Section V - Reactivity Data

#99-002

Stability	Unstable		Conditions to Avoid	Avoid heat, fire, flame, and other sources of ignition.
	Stable	X		

Incompatibility (Materials to Avoid)

Oxidizing agents and nitric acid.

Hazardous Decomposition or Byproducts

None known.

Hazardous Polymerization	May Occur		Conditions to Avoid	None known.
	Will Not Occur	X		

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	Yes	Yes	Not likely.

Health Hazards (Acute and Chronic)

Product may cause mild, transient irritation of skin and eyes. May be harmful if swallowed or inhaled for prolonged periods.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	No	No	No

Signs and Symptoms of Exposure

Prolonged inhalation or ingestion may produce signs and symptoms typical of exposures to hydrocarbon solvents. Exposure of skin and/or eyes may cause mild, transient irritation.

Medical Conditions Generally Aggravated by Exposure

None known.

Emergency and First Aid Procedure

If swallowed, call a physician, hospital emergency room, or poison control center immediately. Induce vomiting only if recommended by medical personnel. Get medical attention. If affected by inhalation, move to fresh air. Give artificial respiration and oxygen if indicated. Get medical attention. In case of overexposure of eyes, rinse with plenty of water. For skin, wash with soap and water.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled

Eliminate all sources of ignition. Dike and contain the free liquid and absorb on vermiculite, spill pillows, or other suitable absorbant. Containerize spent absorbants in UN specification drums for disposal. Wash spill area with detergent solution as necessary.

Waste Disposal Method

Petroleum-based cosmetics and cleansers are ignitable (D001) RCRA hazardous wastes when intended for disposal. Incineration is the required method of treatment and disposal.

Precautions to be Taken in Handling and Storage

Avoid heat, fire, flame, and other sources of ignition. Avoid oxidizing agents and nitric acid. Store bulk quantities in a cool, well-ventilated room. Limit quantities on hand to the extent possible.

Other Precautions

For external use only. Use only as directed.

Section VIII - Control Measures #99-002

Respiratory Protection (Specify Type)

For manufacturing/filling, wear a NIOSH-approved organic vapor respirator if petroleum distillate TLV is exceeded. For spills, wear an approved self-contained breathing apparatus.

Ventilation			
	Local Exhaust	Explosion-Proof	Special
	Mechanical(General)	Explosion-Proof	Other

Protective Gloves

Rubber gloves for bulk quantities.

Other Protective Clothing or Equipment

Safety glasses and protective clothing for bulk quantities.

Work/Hygienic Practices

OSHA hazard classification: Flammable/combustile, toxic

DOT classifications: Bulk - Flammable liquids, N.O.S. (petroleum distillates)
3 UN 1993 PGIII
Finished Product - Consumer Commodity, ORM-D.

Material Safety Data Sheet

May be used to comply with
OSHA's Hazard Communication Standard
29 CFR 1910.1200. Standard must be
consulted for specific requirements

U.S. Department of Labor

Occupation Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

#99-006

IDENTITY
Sodium Hydroxide Based Hair Relaxers

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name	Emergency Telephone Number
L'Oreal USA Products, Inc.	(800) 535-5053 (Int'l 352-323-3500)
Address (Number, Street, City, State, and ZIP Code)	Telephone Number For Information
111 Terminal Avenue	(732) 499-2745
	Date Prepared
Clark, NJ 07066	December 18, 2003
	Signature of Preparer (optional)
	GCD

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity;Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Sodium Hydroxide	2mg/m³			≤2.5%

Section III - Physical/Chemical Characteristics

Boiling Point	~150°F	Specific Gravity (H2O = 1)	~1
Vapor Pressure (mm Hg)	N/A	Melting Point	N/A
Vapor Density (AIR = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A

Solubility in Water
Miscible pH = 13-14

Appearance and Odor
White to off-white cream with a pleasant odor.

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
>200°F (closed cup)`	None	N/A	N/A

Extinguishing Media
Not applicable.

Special Fire Fighting Procedures
Not applicable.

Unusual Fire and Explosion Hazards
Not applicable.

Section V - Reactivity Data

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Stability			Conditions to Avoid
	Unstable		Avoid excessive heat and/or cold.
	Stable	X	

Incompatibility (Materials to Avoid)

Avoid strong acids and organic compounds.

Hazardous Decomposition or Byproducts

(Thermal decomposition) Sodium oxide, carbon monoxide, carbon dioxide.

Hazardous Polymerization			Conditions to Avoid
	May Occur		None known.
	Will Not Occur	X	

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	Not likely	Yes	Not likely.

Health Hazards (Acute and Chronic)

Danger: Corrosive. May cause burns of the skin, eyes, and other mucous membranes. Harmful or fatal if swallowed.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	No	No	No

Signs and Symptoms of Exposure

Contact with skin, eyes, and other mucous membranes will produce chemical burns which, if not promptly treated, may be accompanied by deep ulceration, necrosis, and scarring. Ingestion may produce burns, ulceration, and/or perforation of the alimentary canal followed by shock, circulatory collapse, and possibly death.

Medical Conditions Generally Aggravated by Exposure

Preexisting dermatitis of the scalp and/or skin may be exacerbated by contact with this product.

Emergency and First Aid Procedure

If swallowed and if victim is conscious, immediately rinse mouth with water, then drink one or two glasses of water or milk. Call a physician, hosptial emergency room, or poison control center immediately. Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious person. If in eyes or on skin, flush with water for at least 15 minutes. Call a physician, hospital emergency room or poison control center immediately. Get medical attention.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled

Spills of this product should be diked and contained, treated with dilute acetic acid or sodium dihydrogen phosphate to neutralize the excess base, and flushed with excess water to the sanitary sewer system. Spilled material may also be solidified and placed in appropriate UN specification drums for disposal.

Waste Disposal Method

This product is an EPA corrosive (D002) hazardous waste when intended for disposal. Accordingly, disposal should be undertaken at a hazardous waste facility by neutralization, incineration, and/or other treatment and disposal in accordance with RCRA regulations.

Precautions to be Taken in Handling and Storage

Avoid contact with eyes and skin. Do not taste, swallow, or inhale. Store in a cool location away from strong acids and organic compounds.

Other Precautions

For external use only. Use only as directed. Keep out of reach of children.

Section VIII - Control Measures #99-006

Respiratory Protection (Specify Type)

For manufacturing/filling, wear a NIOSH-approved respirator if constituent TLVs are exceeded. For spill management, use an approved self-contained breathing apparatus. For product use, respiratory protection is generally unnecessary.

Ventilation	Local Exhaust	Generally Acceptable	Special
	Mechanical(General)	Recommended	Other

Protective Gloves

Rubber or neoprene gloves.

Other Protective Clothing or Equipment

Safety glasses with side shields and protective clothing for bulk quantities.

Work/Hygienic Practices

OSHA hazard classification: Corrosive

DOT classification: Bulk and 4 lb. Tubs - Corrosive solid, basic, organic, N.O.S. (Sodium Hydroxide) 8 UN 3263 PGII
Finished Product (other than 4 lb. tubs)-Consumer Commodity,ORM-D.

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SAFETY DATA SHEET

SDS # 99-009

ISSUANCE DATE: January 18, 2013

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L'Oreal USA Products, Inc.
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
1-800-535-5053 (International: 352-323-3500)

For further information: 732-499-2741

Poison Control Number: 412-390-3326

Product Name: Water-Based Shampoos and Body Cleansers

Recommendations on use: For cleansing of hair and/or body.

Restrictions on use: For external use only. Use only as directed. Products which are labeled "For Adult Use Only" should not be used by children. Bath products intended for children should not be used for prolonged periods due to possible skin and/or urinary tract irritation with immersion.

SECTION 2: HAZARDS IDENTIFICATION

Signal Word: WARNING

	Eye Irritation – Category 2A	Causes serious eye irritation	• Wash hands and face thoroughly after handling. • Wear eye protection/face protection; eye protection appropriate for the manufacturing operation being performed should be used (goggles or face shield).

This material is considered hazardous by the US Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200)

General Precautionary Statements: Keep out of reach of children. Read label before use. Discontinue use if rash, redness, or itching occurs.

Additional Precautionary Statements for Immersion Products: Excessive use or prolonged exposure may cause irritation to urinary tract. Avoid contact with eyes.

Hazards Not Otherwise Classified: Prolonged contact may cause irritation of skin and mucous membranes. May cause gastrointestinal disturbance and diarrhea if ingested.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Only hazardous constituents associated with the product are listed below

INGREDIENT:	CAS NO.	% WT
Sodium Lauryl Sulfate	151-21-3	≤ 40%
Sodium Laureth Sulfate	9004-82-4	≤ 30%

Coco-Betaine	68424-94-2	≤ 16%
Cocamidopropyl Betaine	61789-40-0	≤ 16%
Disodium Laureth Sulfosuccinate	39354-45-5	≤ 13%
Sodium Lauryl Sulfoacetate	1847-58-1	≤ 13%
Sodium Lauroyl Sarcosinate	137-16-6	≤ 9%
Disodium Cocoamphodiacetate	68650-39-5	≤ 8%
Cocamide MEA	68140-00-1	≤ 5%

SECTION 4: FIRST AID MEASURES

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 20 minutes or until material is sufficiently removed from the eye. **If eye irritation persists:** Get medical advice/attention.

IF ON SKIN: Wash with plenty of water. **If skin irritation occurs:** Get medical attention. Remove all contaminated clothing and launder before reuse. If irritation of the urinary tract should occur following use of a bath product, consult a physician.

IF INHALED: Remove individual to fresh air and keep in a rest position comfortable for breathing. Call a poison control center if you feel unwell.

IF SWALLOWED: Immediately call a poison control center or consult a physician. Do not induce vomiting. Never give anything by mouth to an unconscious individual.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Most common symptoms include irritating properties to eyes, skin, and/or exposed mucous membranes.

SECTION 5: FIRE-FIGHTING MEASURES

Notes for Non-Emergency Personnel:

SUITABLE EXTINGUISHING MEDIA: Product is not flammable. Selection of a fire extinguisher should be appropriate to address the location of the fire and other materials involved.

Notes for those trained to participate in an emergency:

SPECIFIF FIRE AND EXPLOSION HAZARDS: Not known

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS: Firefighters should wear self-contained breathing apparatus and full protective gear.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal degradation may produce oxides of carbon and sulfur.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Non-Emergency Personnel Precautions: Consult trained response personnel for clean-up of large spills or locations where providing control of the release is hazardous. Isolate the area and deny entry to unnecessary and unprotected personnel. Sections 2, 5, 7 and 8 of this document should be consulted upon use of material, to become knowledgeable of the material's hazards and how to control associated risks.

If the location is not hazardous and only a small amount of material is released: Control the spill using absorbent pads, paper towels or sponges while wearing the protective equipment as noted below. Wash area completely with water. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with Section 13 of this document.

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PERSONAL PROTECTIVE EQUIPMENT: Plastic or rubber gloves, safety glasses/goggles, protective clothing (e.g. apron) may be required for clean-up of large spills. Respiratory protection is typically not necessary, but may used depending upon the size of the spill and occupational exposure limits. Refer to Section 8 for additional information.

Trained Emergency Personnel Precautions: Dike and contain any free liquid then absorb on vermiculite or spill pillows/pads. Solidified materials should be placed in sturdy containers for disposal. Wash area completely with water. Take care to avoid contact with wet surfaces or walkways that may become slick when product is present. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with Section 13 of this document.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling:
Do not eat, drink, or smoke while working with hazardous materials. Avoid contact with eyes, clothing, and prolonged contact with skin (other than areas of application). Refer to Section 8 for personal protective equipment selection. Wash hands and face thoroughly after handling. Do not expose to heat and flame.

Maintain a safe work environment, including proper housekeeping practices and structurally sound/compatible containers.

Incompatible Materials: None known.

Conditions for safe storage of unpackaged product (manufacturing environment): Store in the original tightly capped containers away from sunlight and other heat sources. Keep in a cool and well-ventilated area. Keep container closed when not in use. Store on spill pallets or in other locations where spill containment will be easily accessible.

Keep away from open drains and protect from releases to the environment.

Storage precautions for packaged product – see consumer packaging. No special precautions.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS: These criteria have been published by the referenced authority to establish exposure limits in the work environment. Employee work areas should be monitored to ensure that permissible limits are not exceeded during the work day. These references do not coincide with product use. These references are meant to be in association with the manufacturing environment.

OCCUPATIONAL EXPOSURE VALUES:

Component Name (CAS-No.)	Reference	TWA		STEL/CEILING	
		ppm	mg/m^3	ppm	mg/m^3
No OEVs have been established for noted constituents.	**OSHA PEL**	--	**--**	--	--
	ACGIH TLV	**--**	**--**	**--**	**--**
	NIOSH REL	**--**	**--**	--	--

WORK HYGIENIC PRACTICES: Ensure all work surfaces are maintained, to prevent contamination.

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be considered to control nuisance odors associated with product fragrance.

Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the manufacturing of product **--** Local Exhaust: consistent with nuisance odor removal. Mechanical (general): consistent with nuisance odor removal.

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PERSONAL PROTECTIVE EQUIPMENT: Consistent with good hygiene practices, personal protective equipment (PPE) should be used in conjunction with other control measures including engineering controls, ventilation and isolation. See also Section 5 for PPE advice, in the event of an emergency.

Eye/Face Protection (Non-Emergency): None required for product use. For handling of large quantities of material, safety glasses with side shields/goggles are recommended. Face shields may be required where possibility of a large splash to the face could occur.

Skin Protection (Non-Emergency): None required for product use. For handling large quantities of material, such as in product manufacturing, plastic or rubber gloves should be considered for use. Tyvek clothing may also be suitable for handling large quantities of material in the manufacturing environment.

Respiratory Protection (Non-Emergency): Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered to control nuisance odors. Ensure that the respirator meets current local occupational health and safety standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Colored, transparent or opaque, semi-viscous liquid
ODOR:	Pleasant odor
ODOR THRESHOLD:	Not Available
pH:	3.5 – 9.0
MELTING/FREEZING POINT:	**F:** ~32 **C:** ~0
BOILING POINT:	**F:** ~212 **C:** ~100
FLASH POINT:	**F:** >200 **C:** >93.4 **METHOD USED:** Closed cup
EVAPORATION RATE:	<1 **(Butyl acetate = 1)**
FLAMMABILITY:	Not Applicable to Liquids
FLAMMABLE LIMITS IN AIR:	Not Available
VAPOR PRESSURE (mmHg):	**@ F:** N/A **C:** N/A
VAPOR DENSITY (AIR = 1):	**@ F:** N/A **C:** N/A
RELATIVE DENSITY (H2O = 1):	**~**1
SOLUBILITY IN WATER:	Freely soluble
PARTITION COEFFICIENT:	Not Available
AUTOIGNITION TEMPERATURE:	Not Available
DECOMPOSITION TEMPERATURE:	Not Available
VISCOSITY:	Viscous flowing liquid

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SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: Material is not considered reactive under typical handling and storage conditions.

STABILITY: Product is stable.

POSSIBILITY OF HAZARDOUS REACTIONS: None known. Hazardous polymerization is not expected to occur.

CONDITIONS TO AVOID: None known.

INCOMPATIBILITY (MATERIAL TO AVOID): None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon and sulfur, hydrocarbons, and/or derivatives.

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS:
SKIN CORROSION/IRRITATION: Overexposure may cause skin irritation or dryness
SERIOUS EYE DAMAGE/IRRITATION: Causes serious eye irritation
RESPIRATORY/SKIN SENSITIZATION: None expected
INGESTION: May cause gastrointestinal disturbance or diarrhea
INHALATION: None expected

ROUTES OF EXPOSURE: Eyes and skin

SYMPTOMS: Symptoms may include watering, stinging or itching eyes with direct contact. Prolonged contact my cause irritation of skin and mucous membranes. May cause gastrointestinal disturbance and diarrhea if ingested.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Existing dermatological conditions (such as eczema) may be exacerbated.

ACUTE TOXICOLOGY DATA FOR COMPONENTS

Material	Route	Species	Test Results
Sodium Laureth Sulfate	Oral LD_{50}	Rat	4,100 mg/kg bw
Sodium Laureth Sulfate	Dermal LD_{50}	Rabbit	> 2,000 mg/kg bw
Sodium Lauryl Sulfate (28.2%)	Oral LD_{50}	Rat	6,000 mg/kg
Sodium Lauryl Sulfate	Dermal LD_{50}	Rabbit	ca.600 mg/kg
Sodium Lauryl Sulfate	LC_{50} (4 hr)	Rat	8.67 mg/L
Coco-Betaine	Oral LD_{50}	Rat	6,900 mg/kg
Coco-Betaine	Dermal LD_{50}	Rat	>2.0 g/kg
Cocamidopropyl Betaine (30.6 % Active solution)	Oral LD_{50}	Rat	4900 mg/kg bw
Cocoamidopropyl Betaine (31% Active solution)	Dermal LD_{50}	Rat	>2000 mg/kg
Disodium Cocamphodiacetate	Oral LD_{50}	Rats/Mice	>5.0 to 16.60 g/kg
Disodium Cocamphodiacetate	Dermal LD_{50}	Rats/Mice	>10.0 ml/kg
Sodium Lauroyl Sarcosinate	Oral LD_{50}	Rats	4.2 - 5 mg/kg
Sodium Lauryl Sulfoacetate	Oral LD_{50}	Rats	5,750 mg/kg
Disodium Laureth Sulfosuccinate (40%)	Oral LD_{50}	Rats	>2,000 mg/kg
Disodium Laureth Sulfosuccinate (30-40%)	Dermal LD_{50}	Rabbits	>2,000 mg/kg
Cocamide Mea	Oral LD_{50}	Mice	>10 g/kg
Cocamide Mea	Dermal LD_{50}	Rabbits	>2 g/kg

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Skin Corrosion/Irritation:

Sodium Laureth Sulfate:	Not Irritating: 5% - 5.6%; Minimally Irritating: 6 - 10%; Severely Irritating: > 25% (Rat)
Sodium Lauryl Sulfate:	Slightly – Moderately Irritating: 0.5% - 10%; Skin Corrosion - Severe Irritation: 10% - 30% (Rat)
Coco-Betaine:	Not Irritating: 7.5%; Slightly Irritating: 15%; Mildly Irritating: 30% (Rat); Not Irritating: 6.0% (Human)
Cocoamidopropyl Betaine:	Slightly irritating: 10% (Human)
Disodium Cocamphodiacetate:	Irritating: 4.0% (Rat)
Sodium Lauroyl Sarcosinate:	Not Irritating: 30% (Rat)
Sodium Lauryl Sulfoacetate:	Moderate Irritant – 100%
Disodium Laureth Sulfosuccinate:	Not irritating: 3%
Cocamide Mea:	Slightly Irritating: 50% (Rabbit); Not Irritating: 50% (Human)

Serious Eye Damage/Irritation:

Sodium Laureth Sulfate:	Mildly Irritating: 1.3 – 7.5%; Moderately Irritating: 10 – 17.5%; Severely Irritating: >20% (Rat)
Sodium Lauryl Sulfate:	Mildly Irritating: 5.1%; Moderately Irritating: 10%; Severely Irritating: 21% (Rat)
Coco-Betaine:	Not Irritating: 4.5% (Rat); Moderately Irritating: 10%, (Rabbit);
Cocoamidopropyl Betaine:	Slightly Irritating: 10% (Human)
Disodium Cocamphodiacetate:	Moderately - Severely Irritating: 10-12%
Sodium Lauroyl Sarcosinate:	Not Irritating: 5%; Slightly Irritating: 10% (Rabbit)
Sodium Lauryl Sulfoacetate:	Possibly Irritating
Disodium Laureth Sulfosuccinate:	Irritating: 10%; Eye Damage: 25% (Rabbit)
Cocamide Mea:	Irritating after prolonged contact

Respiratory Irritation:

Sodium Laureth Sulfate:	Causes Respiratory Irritation.
Sodium Lauryl Sulfate:	15% - 25% - Inhibition of Respiration (Mice and Rabbits)
Coco-Betaine:	Possibly Irritating
Sodium Lauroyl Sarcosinate:	Possibly Irritating
Cocamide Mea:	Possibly Irritating
Cocoamidopropyl Betaine:	Not Irritating
Sodium Lauroyl Sarcosinate:	Not Irritating

Skin Sensitization:

Sodium Laureth Sulfate:	Not Sensitizing: 0.1% (Topical Application); Slightly Sensitizing: 0.1% (Intradermal) (Guinea Pig)
Sodium Lauryl Sulfate:	Possibly sensitizing with repeated contact.
Cocoamidopropyl Betaine:	Possibly sensitizing with repeated contact.
Coco-Betaine:	Not Sensitizing: 0.75% (Guinea Pig); Slightly Sensitizing: 0.15% (Intradermal) (Guinea Pig)
Disodium Cocoamphodiacetate:	Not Sensitizing: 28.1%
Sodium Lauroyl Sarcosinate	Not Sensitizing: 5%
Sodium Lauryl Sulfoacetate:	Not Sensitizing: 2% (Guinea pig)

CHRONIC HEALTH HAZARDS:

REPEAT DOSE TOXICITY:

NOAEL (*Sodium Laureth Sulfate*, oral):	>225 mg/kg bw/day; Rat
NOAEL (*Sodium Lauryl Sulfate*, oral):	100 mg/kg/day; Rat
NOAEL (*Cocoamidopropyl Betaine*):	500 mg/kg; Rat
LOAEL (*Cocoamidopropyl Betaine*):	1,000 mg/kg; Rat
NOAEL (*Disodium Cocoamphodiacetate, oral*):	16.60g/kg; Rat
NOAEL (*Sodium Lauroyl Sarcosinate*):	1,000 mg/kg/day; Rat
NOAEL (*Sodium Lauryl Sulfoacetate, oral*):	75 mg/kg/day; Rat
NOAEL (*Disodium Laureth Sulfosuccinate*):	300 mg/kg; Rat
NOAEL (*Cocamide Mea, oral*):	> 750 mg/kg bw/day in olive oil; Rat

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MUTAGENICITY:

Sodium Laureth Sulfate:	A variety of *in vitro* and i*n vivo* tests have products negative results.
Sodium Lauryl Sulfate:	A variety of *in vitro* and i*n vivo* tests have products negative results.
Coco-Betaine:	A variety of *in vitro* tests have produced negative results.
Cocoamidopropyl Betaine:	A variety of *in vitro* tests have produced negative results.
Disodium Cocoamphodiacetate:	A variety of *in vitro* tests have produced negative results.
Sodium Lauroyl Sarcosinate:	A variety of *in vitro* and i*n vivo* tests have products negative results.
Sodium Lauryl Sulfoacetate:	A variety of *in vitro* tests have produced negative results.
Disodium Laureth Sulfosuccinate:	A variety of *in vitro* and *in vivo* tests have products negative results.
Cocamide Mea:	A variety of *in vitro* tests have produced negative results.

REPRODUCTIVE TOXICITY

Sodium Laureth Sulfate:	NOAEL > 3%; 300 mg/kg/day. No adverse effects after 0.1% solutions.
Sodium Lauryl Sulfate:	No adverse effect was seen on fertility.
Coco-Betaine:	No adverse effect was seen on fertility.
Cocoamidopropyl Betaine:	No adverse effect was seen on fertility.
Sodium Lauroyl Sarcosinate:	No adverse effect was seen on fertility.
Sodium Lauryl Sulfoacetate:	NOAEL: 1000 mg/kg bw (OECD 421)
Disodium Laureth Sulfosuccinate:	No adverse effect was seen on fertility.
Cocamide MEA:	No adverse effect was seen on fertility.

DEVELOPMENTAL TOXICITY/TERATOGENICITY

Sodium Laureth Sulfate:	NOEAL: 1,000 mg/kg bw/day (OECD 414 – Rat)
Sodium Lauryl Sulfate:	NOAEL: 300 mg/kg/day; LOAEL: 600 mg/kg/day (Mice/Rat)
Coco-Betaine:	No indication for genotoxic or teratogenic effects
Sodium Lauroyl Sarcosinate:	NOEAL: > 1,000 mg/kg/day (Rat)
Sodium Lauryl Sulfoacetate:	NOAEL*:* 1000 mg/kg bw (OECD 421)
Disodium Laureth Sulfosuccinate:	NOAEL: > 50 mg/kg bw/day
Cocamide MEA:	No indication for genotoxic or teratogenic effects

SECTION 12: ECOLOGICAL INFORMATION

The product ingredients are expected to be safe for the environment at concentrations predicted under normal use and accidental spill scenarios. Packaging components are compatible with the conventional solid waste management practices. Additional information is available from the supplier on request.

Contact with the environment should be avoided. Spills and leaks should be immediately cleaned up and removed. All precautions should be taken to prevent contact with the environment. Published information regarding ingredients listed on this document area found below; where data is not listed, documentation was unavailable.

ACUTE AND PROLONGED TOXICITY TO FISH

INGREDIENT NAME	*TEST*	*RESULT*	*SPECIES*	*EXPOSURE*
Sodium Laureth Sulfate	LC_{50}	*7.1 mg/L*	*Danio Rerio*	*96 h*
Sodium Lauryl Sulfate	LC_{50}	*29 mg/L (OECD 203)*	*Pimephales Promelas*	*48 h*
Coco-Betaine	LC_{50}	*2 mg/L*	*Golden Orfe*	96h
Cocamidropropyl Betaine	LC_{50}	*1.0-10.0 mg/L*	*Golden Orfe*	96 h
Disodium Cocamphodiacetate	LC_{50}	*> 1 – 10 mg/L*	*Not Reported*	96 h
Sodium Lauroyl Sarcosinate	LC_{50}	*107 mg/L*	*Danio Rerio*	*96 h*
Sodium Lauroyl Sulfoacetate	LC_{50}	*4.2 mg/L (OECD 203)*	*Not Reported*	*96 h*
Cocamide MEA	LC_{50}	*23 - >100 mg/L*	*Danio Rerio*	*96 h*

ACUTE TOXICITY TO AQUATIC INVERTEBRATES

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INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Sodium Laureth Sulfate	EC_{50}	*7.4 mg/L*	*Daphnia Magna*	*48 h*
Sodium Lauryl Sulfate	EC_{50}	*5.55 mg/L*	*Ceriodaphnia Dubia*	*48 h*
Coco-Betaine	EC_{50}	*6.5mg/L*	*Brachydanio Rerio*	*48 h*
Cocamidropropyl Betaine	EC_{50}	*2 mg/L*	*Brachydanio Rerio*	*96 h*
Disodium Cocamphodiacetate	EC_{50}	*25 mg/L*	*Daphnia Magna*	*48 h*
Sodium Lauroyl Sarcosinate	EC_{50}	*29.7 mg/L*	*Daphnia Magna*	*48 h*
Sodium Lauroyl Sulfoacetate	EC_{50}	*5.9 mg/L (OECD 201)*	*Daphnia Magna*	*48 h*

TOXICITY TO AQUATIC PLANTS

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Sodium Laureth Sulfate	EC_{50}	*27 mg/L*	*Desmodesmus Subspicatus*	*72 h*
Sodium Lauryl Sulfate	EC_{50}	*> 120mg/L*	*Green Algae*	*72 h*
Coco-Betaine	EC_{50}	*6mg/L*	*Not Reported*	*72h*
Cocamidropropyl Betaine	EC_{50}	*1.0 – 10 mg/L*	*Desmodesmus Subspicatus*	*72 h*
Disodium Cocoamphodiacetate	EC_{50}	>100 mg/L	*Not Reported*	72 h
Sodium Lauroyl Sarcosinate	EC_{50}	*86 mg/L*	*Desmodesmus Subspicatus*	*72 h*
Sodium Lauroyl Sulfoacetate	EC_{50}	*1.9 mg/L*	*EC Biomass*	*96 hours*
Cocamide MEA	EC_{50}	*26 mg/L*	*Not Reported*	*96 hours*

TOXICITY TO MICROORGANISMS

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Sodium Laureth Sulfate	EC_{50}	*>10g/L*	*Pseudomonas Putida*	*16 h*
Sodium Lauryl Sulfate	EC_{50}	*0.38 mg/l*	*Photobacterium Phoshoreum*	*15 mins*
Coco-Betaine	EC_{50}	*>85 m/L*	*Not Reported*	*72 h*
Cocamidropropyl Betaine	EC_{50}	*>100 mg/L*	*Pseudomonas Putida*	*72 h*
Disodium Cocoamphodiacetate	EC_{50}	*>100 mg/L*	*Not Reported*	*72 h*
Sodium Lauroyl Sarcosinate	EC_{50}	*> 10mg/L (CESIO 1994)*	*Not Reported*	*72 h*

PERSISTENCY AND DEGRADABILITY:

Sodium Laureth Sulfate: Readily biodegradable; Half Life: 30 days (soil)
Sodium Lauryl Sulfate: Readily biodegradable (95% in 28 days) – OECD 301
Coco-Betaine: Readily biodegradable (84%)
Cocoamidopropyl Betaine: Readily and rapidly degradable. (> 60% BOD/COD, > 70% DOC) (OECD 301)
Disodium Cocamphodiacetate: Readily biodegradable (83% in 28 days) – OECD 302B
Sodium Lauroyl Sarcosinate: Readily biodegradable (90.9%/ in 20 days).
Cocamide MEA: Fully degradable (28-day)

BIOACCUMULATIVE POTENTIAL:

Sodium Laureth Sulfate: Not considered to be bioaccumulative.
Sodium Lauryl Sulfate: Low bioaccumulation potential.
Coco-Betaine: Not suspected to be bioaccumulative.
Sodium Lauroyl Sarcosinate: Bioaccumulation and bioconcentration is expected because of the relatively high water solubility.
Cocamide Mea: Potentially bioaccumulative (log P >4)

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SECTION 13: DISPOSAL CONSIDERATIONS

Those responsible for the performance of disposal, recycling or reclamation activities should refer to Section 8 of this document for advice on personal protective equipment and exposure controls.

WASTE DISPOSAL CONTAINERS: Containers should be completely closed and meet applicable carrier transport requirements. No governmental agency specification packaging is required for this product. Fiberboard boxes for packaged products and metal/poly drums for liquid material may be used. Packaging materials should not include incompatible materials.

WASTE DISPOSAL METHOD: As manufactured, this product does not exhibit any RCRA characteristics of hazardous waste. Controlled incineration at a licensed waste facility is the recommended technology for treatment and disposal. Material must not be disposed of through sewage.

RCRA HAZARD CLASS: Not regulated.

Follow all local governmental requirements intended for disposal.

SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation

- **IN CONSUMER PACKAGING:** Not regulated
- **OTHER THAN CONSUMER PACKAGING:** Not regulated

Transport Via Water

- **IN CONSUMER PACKAGING:** Not regulated
- **OTHER THAN CONSUMER PACKAGING:** Not regulated

Transport Via Air

- **IN CONSUMER PACKAGING:** Not regulated
- **OTHER THAN CONSUMER PACKAGING:** Not regulated

SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes: Health: 2 Fire: 0 Reactivity: 0 Other: None

Workplace Hazardous Materials Identification System (WHIMS): Division 2, Subdivision B; Eye Irritation

This regulatory information represents the product in its consumer packaging.

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: This document replaces the version dated April 29, 2009 and all previous versions of material safety data sheets related to this product.

Preparer: Ronald Weslosky/Chandra L. Jennings

L'ORÉAL USA

MATERIAL SAFETY DATA SHEET

MSDS # 99-010

MSDS DATE: October 23, 2007

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L'Oreal USA Products, Inc.
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
800-535-5053 (International: 352-323-3500)

For further information:
732-499-2741

Product Name: Solvent-based Aerosols NFPA Level 3

Recommendations on use: Aerosol-packaged liquid for personal care use (hair fixative)

CAUTION: Contents under pressure. Do not store at temperatures above 120F. Do not puncture or incinerate. Avoid fire, flame, heat and other sources of ignition. For external use only. Use only as directed. Keep out of reach of children. Avoid spraying into eyes. Liquid dispensed from the container is flammable until dry.

This document is written for the packaged product (aerosol can containing propellants) with references to the dispensed or unpackaged product (liquid) as necessary.

SECTION 2: HAZARDS IDENTIFICATION

Aerosol can filled with solvent-based product – intended to be used as a spray.

Contents under pressure. Do not store at temperatures above 120 F. Do not puncture or incinerate. Avoid fire, flame and other sources of ignition.

OSHA flammable compressed gas; **DOT** 2.1 flammable aerosol; **WHMIS** Class B Division 2 Aerosol; **NFPA** Level 3 aerosol

Causes eye irritation if product comes in contact with eyes. Over-exposure may cause skin irritation. Ingestion may produce signs of alcohol intoxication.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT:	CAS NO.	% WT
Ethyl Alcohol	64-17-5	<55
Petroleum Distillates	8002-05-9	<50
Dimethyl Ether	115-10-6	<45
Difluoroethane	75-37-6	<45
Butane	106-97-8	<30
Cyclomethicone	541-02-6	<30
Isobutane	75-28-5	<30
Propane	74-98-6	<25

SECTION 4: FIRST AID MEASURES

EYES: Immediately flush with water for at least fifteen minutes. Get medical attention if irritation or other symptoms occur.

SKIN: Wash off with water and soap.

INGESTION: If swallowed, do not induce vomiting. Consult a physician immediately.

INHALATION: Move to fresh air. If irritation symptoms persist, get medical attention.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: No special remarks.

SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, foam, and/or water spray. However, selection of a fire extinguisher should also be appropriate to address the location of the fire and equipment involved.

SPECIAL FIRE FIGHTING PROCEDURES: Treat as NFPA Level 3 aerosol. Follow National Fire Protection Association Guidelines.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Shipped and stored as liquefied compressed gas under pressure. Both the propellants and the liquid product are extremely flammable as individual components. Accordingly, observe all appropriate precautions for handling flammable materials.

HAZARDOUS DECOMPOSITION PRODUCTS: None known

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Since this product is a sealed aerosol, accidental discharge of contents is unlikely unless the can is punctured. Should this occur, eliminate all sources of ignition. Dike and contain the free liquid and absorb on vermiculite or spill pillows. Place spent absorbents in UN specification drums for disposal. All precautions associated with controlling a flammable liquid should be employed during clean-up.

PERSONAL PROTECTIVE EQUIPMENT: Plastic or rubber gloves, apron may be required for clean-up of large spills. Respiratory protection may need to be utilized, depending upon the size of the spill.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Flammable until dry. Do not use or store near heat, fire, flame, and other sources of ignition. Contents under pressure. Do not store at temperatures above 120°F. Do not puncture or incinerate. Avoid spraying in eyes. Store bulk quantities in a cool, well-ventilated room. Limit inventory to the extent possible.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized. This ventilation should be compatible with the control of flammable materials. Testing of aerosol cans should only be performed with explosion-proof ventilation equipment.

VENTILATION: Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the manufacturing of product **--** Local Exhaust: Explosion proof. Mechanical (general): Explosion proof.

RESPIRATORY PROTECTION: Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards. Organic vapor cartridges should be utilized with filtering respiratory protection.

EYE PROTECTION: None required for product use. For handling of large quantities of liquid material, safety glasses with side shields/goggles are recommended. For testing of pressurized cans, face shields or other equipment that protects the eyes/face should be considered for use.

SKIN PROTECTION: None required for product use. For handling large quantities of material, such as in product manufacturing, plastic or rubber gloves should be considered for use.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: None required for product use. Tyvek clothing may also be suitable for handling large quantities of material in the manufacturing environment.

WORK HYGIENIC PRACTICES: Ensure all work surfaces are maintained, to prevent contamination.

Occupational Exposure Values:

OSHA PEL-TWA:	1000 ppm Pentane (all isomers) / Ethanol 500 PPM Petroleum Distillates
ACGIH TLV-TWA:	1000 ppm Butane/Isobutane/Propane (as Aliphatic hydrocarbon gases) and Ethanol 600 ppm Pentane (all isomers) None listed Difluorethane/Dimethyl ether
OSHA PEL/ACGIH TLV STEL:	None Established
OSHA PEL/ACGIH TLV CEILING:	None Established

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Aerosol can dispensing liquid material which dries soon after contact. The water-thin liquid may be slightly colored and/or fragranced.

PHYSICAL STATE: Product dispensed as a liquid spray.

BOILING POINT: **F:** N/A **C:** N/A

MELTING POINT: **F:** N/A **C:** N/A

FREEZING POINT: **F:** N/A **C:** N/A

VAPOR PRESSURE (mmHg):
@ 70 F: 2500 -- 5500 **@ 21 C:** 2500 -- 5500
VAPOR DENSITY (AIR = 1):
@ 70 F: >1; **@ 21 C:** >1

SPECIFIC GRAVITY (H2O = 1): compressed liquid ~ 1; liquid <1

EVAPORATION RATE: >1 for product **(Butyl acetate = 1)**

SOLUBILITY IN WATER: Miscible (as liquid product)

FLAMMABLE LIMITS IN AIR (% BY VOLUME):
BUTANE & ISOBUTANE, UPPER: 8.4% LOWER: 1.6%
PENTANE, UPPER: 7.8% LOWER: 1.5%
ETHANOL, UPPER: 19% LOWER: 3.3%;
PROPANE, UPPER: 9.5% LOWER: 2.1%
PETROLEUM DISTILLATES, UPPER: 5.9% LOWER: 1.1%

FLASH POINT: <0 C propellants; <20C (as dispensed, liquid product) **METHOD USED:** Closed Cup

AUTOIGNITION TEMPERATURE: **F:** N/A **C:** N/A

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SECTION 10: STABILITY AND REACTIVITY

STABILITY: Product is stable.

CONDITIONS TO AVOID (STABILITY): Heat, fire, flame and other sources of ignition.

INCOMPATIBILITY (MATERIAL TO AVOID): Oxidizing agents and nitric acid.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: None known.

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID (POLYMERIZATION): None known

SECTION 11: TOXICOLOGICAL INFORMATION

CARCINOGENICITY:

OSHA: Not recognized as carcinogenic
NTP: Not recognized as carcinogenic
ACGIH: Not recognized as carcinogenic
IARC: Not recognized as carcinogenic

ROUTES OF EXPOSURE:

Inhalation, eyes, skin

POTENTIAL HEALTH EFFECTS:

EYES: Irritation
INGESTION: Harmful if swallowed. May produce signs of alcohol intoxication
SKIN: Overexposure may cause skin irritation
INHALATION: May be irritating if overexposure occurs

ACUTE HEALTH HAZARDS:

Causes eye irritation in the event that contact with product occurs. Ingestion of large quantities may produce temporary gastrointestinal disturbance and diarrhea. Ingestion may also produce signs and symptoms of alcohol intoxication. Overexposure may cause skin irritation.

CHRONIC HEALTH HAZARDS:

None anticipated

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

None known.

SECTION 12: ECOLOGICAL INFORMATION

Contact with the environment should be avoided. Spills and leaks should be immediately cleaned up and removed. All precautions should be taken to prevent contact with the environment.

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SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Solvent-based aerosol products are ignitable (D001) RCRA hazardous wastes when intended for disposal. Controlled incineration at a hazardous waste facility is the recommended technology for treatment and disposal.

RCRA HAZARD CLASS: D001

Follow all local governmental requirements intended for disposal.

SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation

- **In Consumer Packaging:** ORM-D; Consumer Commodity

- **OTHER THAN CONSUMER PACKAGING (liquid without propellant):**
  ID NUMBER: UN 1993
  PROPER SHIPPING NAME: Flammable liquids, n.o.s.
  TECHNICAL NAME: Ethyl Alcohol, Petroleum Distillates, Cyclomethicone
  HAZARD CLASS: 3
  PACKING GROUP: II
  LABEL STATEMENTS: Flammable Liquid

Transport Via Water

- **In Consumer Packaging:** Limited Quantity
  ID NUMBER: UN 1950
  PROPER SHIPPING NAME: Aerosols
  HAZARD CLASS: 2.1
  PACKING GROUP:
  LABEL STATEMENTS:

- **OTHER THAN CONSUMER PACKAGING (liquid without propellant):**
  ID NUMBER: UN 1993
  PROPER SHIPPING NAME: Flammable liquids, n.o.s.
  TECHNICAL NAME: Ethyl Alcohol, Petroleum Distillates, Cyclomethicone
  HAZARD CLASS: 3
  PACKING GROUP: II
  LABEL STATEMENTS: Flammable Liquid

Transport Via Air

- **In Consumer Packaging:** Consumer Commodity ID 8000

- **OTHER THAN CONSUMER PACKAGING (liquid without propellant):**
  ID NUMBER: UN 1993
  PROPER SHIPPING NAME: Flammable liquids, n.o.s.
  TECHNICAL NAME: Ethyl Alcohol, Petroleum Distillates, Cyclomethicone
  HAZARD CLASS: 3
  PACKING GROUP: II
  LABEL STATEMENTS: Flammable Liquid

Please be aware of carrier transport variations before shipping hazardous materials.

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SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes: Health: 2 Fire: 4 Reactivity: 0 Other: None

Hazardous Materials Identification System: Class B Division 2 Flammable Aerosol

Occupational Safety and Health Administration: Flammable Compressed gas (aerosol)

US DOT/ICAO/IMDG: See section 14 above

Propellants as well as liquid contents are considered flammable. This regulatory information represents the product, in its consumer packaging.

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: This document replaces the version dated December 7, 2005 and all previous versions of material safety data sheets related to this product.

Author: Chandra L. Jennings

L'ORÉAL USA

MATERIAL SAFETY DATA SHEET

MSDS # 99-011

MSDS DATE: September 10, 2007

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L'Oreal USA Products, Inc.
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
800-535-5053 (International: 352-323-3500)

For further information:
732-499-2741

Product Name: Water-based Aerosols NFPA Level 1

Recommendations on use: Aerosol-packaged cream or gel for personal care use (hair/skin)

CAUTION: Contents under pressure. Do not store at temperatures above 120F. Do not puncture or incinerate. Avoid fire, flame, heat and other sources of ignition. For external use only. Use only as directed. Keep out of reach of children. Avoid spraying into eyes.

This document is written for the packaged product (aerosol can containing propellants) with references to the dispensed or unpackaged product (liquid/gel or foam) as necessary.

SECTION 2: HAZARDS IDENTIFICATION

Aerosol can filled with water-based product – product may foam when dispensed.

Contents under pressure. Do not store at temperatures above 120 F. Do not puncture or incinerate. Avoid fire, flame and other sources of ignition.

OSHA flammable compressed gas; **DOT** 2.1 flammable aerosol; **WHMIS** Class B Division 5 Aerosol; **NFPA** Level 1 aerosol

May have irritating properties if product comes in contact with eyes.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT:	CAS NO.	% WT
Difluoroethane	75-37-6	<20
Isobutane	75-28-5	<6
Butane	106-97-8	<6
Dimethyl ether	115-10-6	<6
Propane	74-98-6	<6
Ethyl Alcohol	64-17-5	<6

SECTION 4: FIRST AID MEASURES

EYES: Immediately flush with water for at least fifteen minutes. Get medical attention if irritation occurs.

SKIN: Wash off with water.

INGESTION: If swallowed, do not induce vomiting. Consult a physician if gastrointestinal symptoms occur.

INHALATION: Move to fresh air. If irritation symptoms persist, get medical attention.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: No special remarks.

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SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: 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.

SPECIAL FIRE FIGHTING PROCEDURES: Treat as NFPA Level 1 aerosol. Follow National Fire Protection Association Guidelines.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Shipped and stored as liquefied compressed gas under pressure. The propellants are extremely flammable as individual components. However, the dispensed liquid product (not including propellants) is non-flammable based upon flame extension criteria.

HAZARDOUS DECOMPOSITION PRODUCTS: None known

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Since this product is a sealed aerosol, accidental discharge of contents is unlikely unless the can is punctured. Should this occur, solidify foam and/or free liquid with a suitable absorbent and place in plastic or metal containers for disposal.

PERSONAL PROTECTIVE EQUIPMENT: Plastic or rubber gloves, apron may be required for clean-up of large spills.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Caution: contents under pressure. Do not store at temperatures above 120 F. Do not puncture or incinerate aerosol cans. Avoid fire, flame, heat and other sources of ignition.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized. Testing of aerosol cans should only be performed with explosion-proof ventilation equipment.

VENTILATION: Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the manufacturing of product **--** Local Exhaust: Explosion proof. Mechanical (general): Explosion proof.

RESPIRATORY PROTECTION: Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards. Organic vapor cartridges should be utilized with filtering respiratory protection.

EYE PROTECTION: None required for product use. For handling of large quantities of liquid material, safety glasses with side shields/goggles are recommended. For testing of pressurized cans, face shields or other protective equipment that protects the eyes/face should be considered for use.

SKIN PROTECTION: None required for product use. For handling large quantities of material, such as in product manufacturing, plastic or rubber gloves should be considered for use.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: None required for product use. Tyvek clothing may also be suitable for handling large quantities of material in the manufacturing environment.

WORK HYGIENIC PRACTICES: Ensure all work surfaces are maintained, to prevent contamination.

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Occupational Exposure Values:

OSHA PEL-TWA:	None established
ACGIH TLV-TWA:	1000 ppm Butane/Isobutane/Propane (as Aliphatic hydrocarbon gases) None listed Difluorethane/Dimethyl ether
OSHA PEL/ACGIH TLV STEL :	None Established
OSHA PEL/ACGIH TLV CEILING:	None Established

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Aerosol can dispensing foam or gel with fragrance.

PHYSICAL STATE: Product dispensed as foam/gel

BOILING POINT:
F: N/A
C: N/A
MELTING POINT:
F: N/A
C: N/A
FREEZING POINT:
F: N/A
C: N/A
VAPOR PRESSURE (mmHg):
@ 70 F: 2500 – 5500; **@ 21 C:** 2500 -- 5500
VAPOR DENSITY (AIR = 1):
@ 70 F: >1; **@ 21 C:** >1
SPECIFIC GRAVITY (H2O = 1): compressed liquid ~ 1; foam <1

EVAPORATION RATE: <1 for product
(Butyl acetate = 1)

SOLUBILITY IN WATER: Soluble

FLAMMABLE LIMITS IN AIR (% BY VOLUME): BUTANE, UPPER: 8.4% LOWER: 1.6%

FLASH POINT: <0F; **METHOD USED:** Closed Cup

AUTOIGNITION TEMPERATURE:
F: N/A
C: N/A

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Product is stable.

CONDITIONS TO AVOID (STABILITY): Heat, fire, flame and other sources of ignition.

INCOMPATIBILITY (MATERIAL TO AVOID): Oxidizing agents and nitric acid.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: None known.

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID (POLYMERIZATION): None known

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SECTION 11: TOXICOLOGICAL INFORMATION

CARCINOGENICITY:

OSHA: Not recognized as carcinogenic
NTP: Not recognized as carcinogenic
ACGIH: Not recognized as carcinogenic
IARC: Not recognized as carcinogenic

ROUTES OF EXPOSURE:

Inhalation, eyes, skin

POTENTIAL HEALTH EFFECTS:

EYES: Possible irritation
INGESTION: Harmful if swallowed
SKIN: None expected
INHALATION: None expected

ACUTE HEALTH HAZARDS:

May cause eye irritation in the event that contact with product occurs. Ingestion of large quantities may produce temporary gastrointestinal disturbance and diarrhea. No adverse effects anticipated following dermal exposure.

CHRONIC HEALTH HAZARDS:

None anticipated

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

None known.

SECTION 12: ECOLOGICAL INFORMATION

The product ingredients are expected to be safe for the environment at the concentrations predicted under normal use and accidental spill scenarios.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Water-based aerosol products are ignitable (D001) RCRA hazardous wastes when intended for disposal. Controlled incineration at a hazardous waste facility is the recommended technology for treatment and disposal.

RCRA HAZARD CLASS: D001

Follow all local governmental requirements intended for disposal.

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SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation

- **In Consumer Packaging:** ORM-D; Consumer Commodity

- **OTHER THAN CONSUMER PACKAGING (liquid without propellant):** Non-hazardous/Not regulated

Transport Via Water

- **In Consumer Packaging:** Limited Quantity
  ID NUMBER: UN 1950
  PROPER SHIPPING NAME: Aerosols
  HAZARD CLASS: 2.1
  PACKING GROUP:
  LABEL STATEMENTS:

- **OTHER THAN CONSUMER PACKAGING (liquid without propellant):** Non-hazardous/Not regulated

Transport Via Air

- **In Consumer Packaging:** Consumer Commodity ID 8000

- **OTHER THAN CONSUMER PACKAGING (liquid without propellant):** Non-hazardous/Not regulated

Please be aware of carrier transport variations before shipping hazardous materials.

SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes: Health: 1 Fire: 1 Reactivity: 0 Other: None
Hazardous Materials Identification System: Class B Division 5 Flammable Aerosol
Occupational Safety and Health Administration: Flammable Compressed gas (aerosol).
US DOT/ICAO/IMDG: See section 14 above

Product when dispensed/prior to packaging is non-hazardous.

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: This document replaces the version dated December 18, 2003 and all previous versions of material safety data sheets related to this product.

Author: Chandra L. Jennings

L'ORÉAL USA

MATERIAL SAFETY DATA SHEET

MSDS # 99-012

MSDS DATE: October 5, 2007

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L'Oreal USA Products, Inc.
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
800-535-5053 (International: 352-323-3500)

For further information:
732-499-2741

Product Name: Alcohol-based Aerosols NFPA Level 2

Recommendations on use: Aerosol-packaged liquid for personal care use (hair fixative)

CAUTION: Contents under pressure. Do not store at temperatures above 120F. Do not puncture or incinerate. Avoid fire, flame, heat and other sources of ignition. For external use only. Use only as directed. Keep out of reach of children. Avoid spraying into eyes. Liquid dispensed from the container is flammable until dry.

This document is written for the packaged product (aerosol can containing propellants) with references to the dispensed or unpackaged product (liquid) as necessary.

SECTION 2: HAZARDS IDENTIFICATION

Aerosol can filled with alcohol-based product – intended to be used as a spray.

Contents under pressure. Do not store at temperatures above 120 F. Do not puncture or incinerate. Avoid fire, flame and other sources of ignition.

OSHA flammable compressed gas; **DOT** 2.1 flammable aerosol; **WHMIS** Class B Division 2 Aerosol; **NFPA** Level 2 aerosol

Causes eye irritation if product comes in contact with eyes. Over-exposure may cause skin irritation. Ingestion may produce signs of alcohol intoxication.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT:	CAS NO.	% WT
Ethyl Alcohol	64-17-5	<55
Dimethyl Ether	115-10-6	<30
Isobutane	75-28-5	<30
Butane	106-97-8	<25
Propane	74-98-6	<25
Difluoroethane	75-37-6	<45
Pentane	109-66-0	<10

SECTION 4: FIRST AID MEASURES

EYES: Immediately flush with water for at least fifteen minutes. Get medical attention if irritation or other symptoms occur.

SKIN: Wash off with water and soap.

INGESTION: If swallowed, do not induce vomiting. Consult a physician immediately.

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INHALATION: Move to fresh air. If irritation symptoms persist, get medical attention.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: No special remarks.

SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, foam, and/or water spray. However, selection of a fire extinguisher should also be appropriate to address the location of the fire and equipment involved.

SPECIAL FIRE FIGHTING PROCEDURES: Treat as NFPA Level 2 aerosol. Follow National Fire Protection Association Guidelines.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Shipped and stored as liquefied compressed gas under pressure. Both the propellants and the liquid product are extremely flammable as individual components. Accordingly, observe all appropriate precautions for handling flammable materials.

HAZARDOUS DECOMPOSITION PRODUCTS: None known

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Since this product is a sealed aerosol, accidental discharge of contents is unlikely unless the can is punctured. Should this occur, eliminate all sources of ignition. Dike and contain the free liquid and absorb on vermiculite or spill pillows. Place spent absorbents in UN specification drums for disposal. The product is alcohol-based. All precautions associated with controlling a flammable liquid should be employed during clean-up.

PERSONAL PROTECTIVE EQUIPMENT: Plastic or rubber gloves, apron may be required for clean-up of large spills. Respiratory protection may need to be utilized, depending upon the size of the spill.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Flammable until dry. Do not use or store near heat, fire, flame, and other sources of ignition. Contents under pressure. Do not store at temperatures above 120°F. Do not puncture or incinerate. Avoid spraying in eyes. Store bulk quantities in a cool, well-ventilated room. Limit inventory to the extent possible.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized. This ventilation should be compatible with the control of flammable materials. Testing of aerosol cans should only be performed with explosion-proof ventilation equipment.

VENTILATION: Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the manufacturing of product **--** Local Exhaust: Explosion proof. Mechanical (general): Explosion proof.

RESPIRATORY PROTECTION: Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards. Organic vapor cartridges should be utilized with filtering respiratory protection.

EYE PROTECTION: None required for product use. For handling of large quantities of liquid material, safety glasses with side shields/goggles are recommended. For testing of pressurized cans, face shields or other equipment that protects the eyes/face should be considered for use.

SKIN PROTECTION: None required for product use. For handling large quantities of material, such as in product manufacturing, plastic or rubber gloves should be considered for use.

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OTHER PROTECTIVE CLOTHING OR EQUIPMENT: None required for product use. Tyvek clothing may also be suitable for handling large quantities of material in the manufacturing environment.

WORK HYGIENIC PRACTICES: Ensure all work surfaces are maintained, to prevent contamination.

Occupational Exposure Values:

OSHA PEL-TWA:	1000 ppm Pentane (all isomers)
ACGIH TLV-TWA:	1000 ppm Butane/Isobutane/Propane (as Aliphatic hydrocarbon gases) 600 ppm Pentane (all isomers) None listed Difluorethane/Dimethyl ether
OSHA PEL/ACGIH TLV STEL:	None Established
OSHA PEL/ACGIH TLV CEILING:	None Established

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Aerosol can dispensing liquid material which dries soon after contact. The water-thin liquid may be slightly colored and/or fragranced.

PHYSICAL STATE: Product dispensed as a liquid spray.

BOILING POINT: **F:** N/A **C:** N/A

MELTING POINT: **F:** N/A **C:** N/A

FREEZING POINT: **F:** N/A **C:** N/A

VAPOR PRESSURE (mmHg):
@ 70 F: 2500 -- 5500 **@ 21 C:** 2500 -- 5500
VAPOR DENSITY (AIR = 1):
@ 70 F: >1; **@ 21 C:** >1

SPECIFIC GRAVITY (H2O = 1): compressed liquid ~ 1; liquid <1

EVAPORATION RATE: >1 for product **(Butyl acetate = 1)**

SOLUBILITY IN WATER: Soluble (as liquid product)

FLAMMABLE LIMITS IN AIR (% BY VOLUME): BUTANE, UPPER: 8.4% LOWER: 1.6%; PENTANE, UPPER 7.8% LOWER 1.5%

FLASH POINT: <0 C propellants; <20C (as dispensed, liquid product) **METHOD USED:** Closed Cup

AUTOIGNITION TEMPERATURE: **F:** N/A **C:** N/A

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Product is stable.

CONDITIONS TO AVOID (STABILITY): Heat, fire, flame and other sources of ignition.

INCOMPATIBILITY (MATERIAL TO AVOID): Oxidizing agents and nitric acid.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: None known.

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID (POLYMERIZATION): None known

SECTION 11: TOXICOLOGICAL INFORMATION

CARCINOGENICITY:

OSHA: Not recognized as carcinogenic
NTP: Not recognized as carcinogenic
ACGIH: Not recognized as carcinogenic
IARC: Not recognized as carcinogenic

ROUTES OF EXPOSURE:

Inhalation, eyes, skin

POTENTIAL HEALTH EFFECTS:

EYES: Irritation
INGESTION: Harmful if swallowed. May produce signs of alcohol intoxication
SKIN: Overexposure may cause skin irritation
INHALATION: May be irritating if overexposure occurs

ACUTE HEALTH HAZARDS:

Causes eye irritation in the event that contact with product occurs. Ingestion of large quantities may produce temporary gastrointestinal disturbance and diarrhea. Ingestion may also produce signs and symptoms of alcohol intoxication. Overexposure may cause skin irritation.

CHRONIC HEALTH HAZARDS:

None anticipated

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

None known.

SECTION 12: ECOLOGICAL INFORMATION

Contact with the environment should be avoided. Spills and leaks should be immediately cleaned up and removed. All precautions should be taken to prevent contact with the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Alcohol-based aerosol products are ignitable (D001) RCRA hazardous wastes when intended for disposal. Controlled incineration at a hazardous waste facility is the recommended technology for treatment and disposal.

RCRA HAZARD CLASS: D001

Follow all local governmental requirements intended for disposal.

L'ORÉAL USA

SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation

- **In Consumer Packaging:** ORM-D; Consumer Commodity

- **OTHER THAN CONSUMER PACKAGING (liquid without propellant):**
  ID NUMBER: UN 1170
  PROPER SHIPPING NAME: Ethyl alcohol, solution
  HAZARD CLASS: 3
  PACKING GROUP: II
  LABEL STATEMENTS: Flammable Liquid

Transport Via Water

- **In Consumer Packaging:** Limited Quantity
  ID NUMBER: UN 1950
  PROPER SHIPPING NAME: Aerosols
  HAZARD CLASS: 2.1
  PACKING GROUP:
  LABEL STATEMENTS:

- **OTHER THAN CONSUMER PACKAGING (liquid without propellant):**
  ID NUMBER: UN 1170
  PROPER SHIPPING NAME: Ethyl alcohol, solution
  HAZARD CLASS: 3
  PACKING GROUP: II
  LABEL STATEMENTS: Flammable Liquid

Transport Via Air

- **In Consumer Packaging:** Consumer Commodity ID 8000

- **OTHER THAN CONSUMER PACKAGING (liquid without propellant):**
  ID NUMBER: UN 1170
  PROPER SHIPPING NAME: Ethyl alcohol, solution
  HAZARD CLASS: 3
  PACKING GROUP: II
  LABEL STATEMENTS: Flammable Liquid

Please be aware of carrier transport variations before shipping hazardous materials.

L'ORÉAL USA

SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes: Health: 2 Fire: 4 Reactivity: 0 Other: None
Hazardous Materials Identification System: Class B Division 2 Flammable Aerosol
Occupational Safety and Health Administration: Flammable Compressed gas (aerosol)
US DOT/ICAO/IMDG: See section 14 above

Propellants as well as liquid contents are considered flammable. This regulatory information represents the product, in its consumer packaging.

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: This document replaces the version dated December 18, 2003 and all previous versions of material safety data sheets related to this product.

Author: Chandra L. Jennings

Material Safety Data Sheet

May be used to comply with
OSHA's Hazard Communication Standard
29 CFR 1910.1200. Standard must be
consulted for specific requirements

U.S. Department of Labor

Occupation Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

#99-015

IDENTITY

Liquid Volatile Silicone-Based Cosmetics

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name	Emergency Telephone Number
L'Oreal USA Products, Inc.	(800) 535-5053 (Int'l 352-323-3500)
Address (Number, Street, City, State, and ZIP Code)	**Telephone Number For Information**
111 Terminal Avenue	(732) 499-2746
	Date Prepared
Clark, NJ 07066	February 6, 2006 (replaces 1-11-05)
	Signature of Preparer (optional)
	C. Jennings

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity;Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Cyclomethicone	None			≤85%
Cyclopentasiloxane	None			≤90%
Cyclohexasiloxane	None			≤60%

Section III - Physical/Chemical Characteristics

Boiling Point	>150°F	Specific Gravity (H2O = 1)	~1
Vapor Pressure (mm Hg)	N/A	Melting Point	N/A
Vapor Density (AIR = 1)	>1	Evaporation Rate (Butyl Acetate = 1)	>1

Solubility in Water

Insoluble

Appearance and Odor

Semi-viscous clear to translucent liquid with a faint odor.

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
26-140°F (closed cup)	Cyclomethicone	0.5%	8.0%

Extinguishing Media

Carbon dioxide, dry chemical, foam, and/or water spray.

Special Fire Fighting Procedures

Fires involving bulk product may be extinguished with carbon dioxide, dry chemical, and/or foam. Water spray may be used to soak corrugated shipping containers of finished product if involved in a fire.

Unusual Fire and Explosion Hazards

None; however, observe usual precautions for handling of flammable liquids. For manufacturing, minimize airborne vapor levels through engineering controls.

Section V - Reactivity Data

#99-015

Stability			Conditions to Avoid	
	Unstable			Avoid heat, fire, and other sources of ignition.
	Stable	X		

Incompatibility (Materials to Avoid)

Oxidizing agents and nitric acid.

Hazardous Decomposition or Byproducts

Silicon dioxide, carbon monoxide, carbon dioxide.

Hazardous Polymerization			Conditions to Avoid
	May Occur		
	Will Not Occur	X	None known.

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	Yes	Yes	Not likely.

Health Hazards (Acute and Chronic)

May cause eye irritation. Although product is non-toxic, ingestion of large quantities may produce temporary gastrointestinal disturbance and diarrhea. No adverse effects would be expected following dermal exposure.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	No	No	No

Signs and Symptoms of Exposure

Possible eye irritation; temporary gastrointestinal disturbance and diarrhea.

Medical Conditions Generally Aggravated by Exposure

None known.

Emergency and First Aid Procedure

If in eyes, flush with plenty of water for at least 15 minutes. Get medical attention if irritation occurs. If swallowed, drink one or two glasses of water or milk and consult a physician. If on skin, wash with soap and water.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled

Eliminate all sources of ignition. Dike and contain the free liquid, if any, and absorb on vermiculite, spill pillows, or other absorbants. Containerize spent absorbants in UN specification drums for disposal. Wash spill area with detergent solution as necessary.

Waste Disposal Method

Liquid volatile silicone-based cosmetics are ignitable (D001) RCRA hazardous wastes when intended for disposal. Incineration is the required method of treatment and disposal.

Precautions to be Taken in Handling and Storage

Store bulk quantities in a cool, well-ventilated room. Limit quantities on hand to the extent possible. Store away from possible sources of ignition. Observe usual precautions relative to static electricity. Avoid oxidizing agents and nitric acid.

Other Precautions

For external use only. Use only as directed.

Section VIII - Control Measures

For routine manufacturing/filling operations, none generally required. For spills, wear an approved self-contained breathing apparatus.

Ventilation			
	Local Exhaust	Explosion-Proof	Special
	Mechanical(General)	Explosion-Proof	Other

Protective Gloves **#99-015**

Rubber or plastic gloves for bulk quantities.

Other Protective Clothing or Equipment

Safety glasses and protective clothing for bulk quantities.

Work/Hygienic Practices

OSHA hazard classification: Flammable/combustible.

DOT classification: Bulk - Flammable liquids, N.O.S.
(cyclomethicone/cyclopentasiloxane/cyclohexasiloxane)
3 UN 1993 PGII or III.
Finished Product - Consumer Commodity, ORM-D.

Material Safety Data Sheet

May be used to comply with
OSHA's Hazard Communication Standard
29 CFR 1910.1200. Standard must be
Consulted for specific requirements

U.S. Department of Labor **#99-021**
Occupation Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY
Alcohol-Based Hair Styling Products

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name L'Oreal USA Products, Inc.	Emergency Telephone Number (800) 535-5053 (Int'l 352-323-3500)
Address (Number, Street, City, State, and ZIP Code) 111 Terminal Avenue	Telephone Number For Information (732) 499-2745
Clark, NJ 07066	Date Prepared December 18, 2003
	Signature of Preparer (optional) GCD

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity;Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Ethyl Alcohol	1000 ppm			Total Alcohols
Isopropyl Alcohol	400 ppm			25-92%

Section III - Physical/Chemical Characteristics

Boiling Point	120-170°F	Specific Gravity (H2O = 1)	~0.9
Vapor Pressure (mm Hg)	N/A	Melting Point	N/A
Vapor Density (AIR = 1)	>1	Evaporation Rate (Butyl Acetate = 1)	~3

Solubility in Water
Miscible

Appearance and Odor
Translucent, water thin liquid with a pleasant odor. (non-aerosol)

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
30-73°F (closed cup)	Ethanol	3.3%	19%

Extinguishing Media
Carbon dioxide, dry chemical, foam and/or water spray.

Special Fire Fighting Procedures
For small fires, use carbon dioxide, dry chemical, or foam.
For larger fires, use ample quantities of water.

Unusual Fire and Explosion Hazards
None; however, observe usual precautions for handling of flammable liquids.
For manufacturing, minimize airborne vapor levels through engineering controls.

Forms published by ChemSW (707)864-0845

Section V - Reactivity Data

#99-021

Stability			Conditions to Avoid	
	Unstable			Avoid fire, flame, heat, and other sources of ignition.
	Stable	X		

Incompatibility (Materials to Avoid)

Oxidizing agents and nitric acid.

Hazardous Decomposition or Byproducts

None known.

Hazardous Polymerization			Conditions to Avoid	
	May Occur			None known.
	Will Not Occur	X		

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	Yes	Yes	Not likely

Health Hazards (Acute and Chronic)

Causes eye irritation. May cause skin irritation or sensitization in sensitive individuals. May be harmful if swallowed.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	No	No	No

Signs and Symptoms of Exposure

Overexposure and/or ingestion may produce signs and symptoms of alcohol intoxication.

Medical Conditions Generally Aggravated by Exposure

None known.

Emergency and First Aid Procedure

INGESTION: Give one or two glasses of water or milk and consult physician.
EYE CONTACT: Flush thoroughly with water for at least 15 minutes and get medical attention.
SKIN CONTACT: Flush with water, then wash with soap and plenty of water.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled

Eliminate all sources of ignition. Dike and contain the free liquid and absorb with vermiculite or spill pillows. Containerize absorbed material in UN specification drums for disposal. Wash spill area with water.

Waste Disposal Method

Alcohol-based products are ignitable (D001) RCRA hazardous wastes when intended for disposal. Incineration is the required method of treatment and disposal.

Precautions to be Taken in Handling and Storage

Store bulk quantities in a cool, well-ventilated room. Limit quantities on hand to the extent possible. Store away from possible sources of ignition. Observe usual precautions relative to static electricity. Avoid oxidizing agents and nitric acid.

Other Precautions

Avoid contact with eyes. For external use only. Use only as directed.

Section VIII - Control Measures #99-021

Respiratory Protection (Specify Type)

For manufacturing/filling, wear a NIOSH-approved organic vapor respirator if alcohol TLV is exceeded. For spills, wear an approved self-contained operating apparatus.

Ventilation	Local Exhaust	Explosion-Proof	Special
	Mechanical(General)	Explosion-Proof	Other

Protective Gloves

Plastic or rubber for bulk quantities.

Other Protective Clothing or Equipment

Safety glasses for bulk quantities. Protective clothing for manufacturing operations.

Work/Hygienic Practices

OSHA hazard classification: Flammable, eye irritant
DOT classification: Bulk - Ethanol solutions, 3 UN 1170 PGII
Finished product - Consumer Commodity, ORM-D.

Material Safety Data Sheet

May be used to comply with
OSHA's Hazard Communication Standard
29 CFR 1910.1200. Standard must be
Consulted for specific requirements

U.S. Department of Labor **#99-023**
Occupation Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY
Semi-Permanent and Permanent Hair Dyes Containing No Alcohols

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name	Emergency Telephone Number
L'Oreal USA Products, Inc.	(800) 535-5053 (Int'l 352-323-3500)
Address (Number, Street, City, State, and ZIP Code)	Telephone Number For Information
111 Terminal Avenue	(732) 499-2746
Clark, NJ 07066	Date Prepared: January 27, 2006 (replaces 12-18-03)
	Signature of Preparer (optional): CLJ

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity;Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Ethanolamine	3 ppm			<10
Ethoxydiglycol				<10
Ammonium Hydroxide		25 ppm		<7
p-Phenylenediamine	0.1mg/m³			<5
Aminophenols	None			<2
Resorcinol		10 ppm		<1.5
Hydroquinone	2 mg/m³			<1

Section III - Physical/Chemical Characteristics

Boiling Point	170-200°F	Specific Gravity (H2O = 1)	~1
Vapor Pressure (mm Hg)	N/A	Melting Point	N/A
Vapor Density (AIR = 1)	<1	Evaporation Rate (Butyl Acetate = 1)	<1

Solubility in Water
Dispersible

Appearance and Odor
White to tan viscous liquid or cream with an ammonical odor.

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
>200°F (closed cup)	None	N/A	N/A

Extinguishing Media
Not applicable.

Special Fire Fighting Procedures
Not applicable.

Unusual Fire and Explosion Hazards
None known.

Section V - Reactivity Data

#99-023

Stability	Unstable		Conditions to Avoid
	Stable	X	None known.

Incompatibility (Materials to Avoid)

None known.

Hazardous Decomposition or Byproducts

None known.

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	None known.

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	Yes	Yes	Not likely.

Health Hazards (Acute and Chronic)

Harmful if swallowed, inhaled, or absorbed through skin. This product may cause serious irritant, respiratory, and/or allergic reactions in sensitive individuals.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	No	No	No

Signs and Symptoms of Exposure

Irritation of eyes, skin, and mucous membranes. Possible irritant/allergic dermatitis and respiratory signs and symptoms, the onset of which may be delayed.

Medical Conditions Generally Aggravated by Exposure

Existing dermatological conditions, such as eczema, and respiratory conditions, such as bronchial asthma and/or chronic bronchitis, may be exacerbated.

Emergency and First Aid Procedure

If swallowed, call a physician, hospital emergency room, or poison control center immediately. Induce vomiting only if recommended by medical personnel. Get prompt medical attention. If affected by inhalation, move to fresh air. If symptoms persist, get medical attention. If eye or skin contact occurs, immediately flush with water and get medical attention if irritation occurs.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled

Dike and contain the free liquid, if any, and absorb on vermiculite, spill pillows, or other suitable absorbant material. Place spent absorbants in proper containers for disposal.

Waste Disposal Method

This material is not regulated under RCRA. Accordingly, incineration at a non-hazardous waste treatment facility is the preferred method of disposal.

Precautions to be Taken in Handling and Storage

Use only with adequate ventilation and avoid inhalation. Avoid contact with eyes and skin (other than areas of application). Do not inhale or ingest. Prepare and use in a well-ventilated area. To assure maximum shelf-life, avoid direct sunlight.

Other Precautions

For external use only. Use only as directed. Keep out of reach of children. Patch test is intended to indentify skin reaction only; it will not necessarily predict sensitization or irritation secondary to inhalation. Read the product package insert completely.

Section VIII - Control Measures #99-023

Respiratory Protection (Specify Type)

For manufacturing/filling, wear a NIOSH-approved respirator if constitutent TLVs are exceeded. For spill management, use an approved self-contained breathing apparatus. For product use, respiratory protection is generally unnecessary.

Ventilation	Local Exhaust	Recommended	Special
	Mechanical(General)	Generally Acceptable	Other

Protective Gloves

Plastic or rubber gloves.

Other Protective Clothing or Equipment

Safety glasses with side shields and protective clothing for bulk quantities.

Work/Hygienic Practices

OSHA hazard classification: Irritant, slightly toxic, possible sensitizer.

DOT classification: Bulk - Not regulated.
Finished Product - Not regulated.

Material Safety Data Sheet

May be used to comply with
OSHA's Hazard Communication Standard
29 CFR 1910.1200. Standard must be
consulted for specific requirements

U.S. Department of Labor

Occupation Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

#99-024

IDENTITY
Anhydrous Perm Wave Waving/Reforming Lotions

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name L'Oreal USA Products, Inc.	Emergency Telephone Number (800) 535-5053 (Int'l 352-323-3500)
Address (Number, Street, City, State, and ZIP Code) 111 Terminal Avenue	Telephone Number For Information (732) 499-2745
Clark, NJ 07066	Date Prepared December 18, 2003
	Signature of Preparer (optional) GCD

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity;Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Glyceryl Monothioglycolate	None			~75%

Section III - Physical/Chemical Characteristics

Boiling Point	N/A	Specific Gravity (H2O = 1)	~1.2
Vapor Pressure (mm Hg)	N/A	Melting Point	N/A
Vapor Density (AIR = 1)	>1	Evaporation Rate (Butyl Acetate = 1)	<1

Solubility in Water
Insoluble

Appearance and Odor
Thick viscous liquid with a sulfurous odor.

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
>200°F (closed cup)	None	N/A	N/A

Extinguishing Media
Carbon dioxide, dry chemical, foam, and/or water spray.

Special Fire Fighting Procedures
For small fires, use carbon dioxide, dry chemical, or foam.
For larger fires, use ample quantities of water. Wear a self-contained breathing apparatus.

Unusual Fire and Explosion Hazards
Material may undergo decomposition into hydrogen sulfide and oxides of sulfur in a fire.

Section V - Reactivity Data

#99-024

Stability			Conditions to Avoid
	Unstable		
	Stable	X	Avoid excessive heat.

Incompatibility (Materials to Avoid)

Metallic stirrers and bowls, iron, nickel, oxidizing agents, and acids.

Hazardous Decomposition or Byproducts

Hydrogen sulfide, sulfur dioxide, sulfur trioxide.

Hazardous Polymerization			Conditions to Avoid
	May Occur		
	Will Not Occur	X	None known.

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	Yes	Yes	Not likely.

Health Hazards (Acute and Chronic)

Harmful if swallowed, inhaled, or absorbed through skin. This product may cause serious irritant, respiratory, and/or allergic reactions in sensitive individuals.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	No	No	No

Signs and Symptoms of Exposure

Irritation of eyes, skin, and mucous membranes. Possible irritant/allergic dermatitis and respiratory signs and symptoms, the onset of which may be delayed.

Medical Conditions Generally Aggravated by Exposure

Existing dermatological conditions, such as eczema, and respiratory conditions, such as bronchial asthma and/or chronic bronchitis, may be exacerbated.

Emergency and First Aid Procedure

If swallowed, call a physician, hospital emergency room, or poison control center immediately. Induce vomiting only if recommended by medical personnel. Get prompt medical attention. If affected by inhalation, move to fresh air. If symptoms persist, get medical attention. If eye or skin contact occurs, immediately flush with water and get medical attention if irritation occurs.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled

Dike and contain the free liquid, if any, and absorb on vermiculite, spill pillows, or other suitable absorbant material. Place spent absorbants in proper containers for disposal.

Waste Disposal Method

This material is not regulated under RCRA. Accordingly, incineration at a non-hazardous waste treatment facility is the preferred method of disposal.

Precautions to be Taken in Handling and Storage

Use only with adequate ventilation and avoid inhalation. Avoid contact with eyes and skin (other than areas of application). Do not inhale or ingest. Prepare and use in a well-ventilated area. To assure maximum shelf-life, avoid direct sunlight.

Other Precautions

For external use only. Use only as directed. Keep out of reach of children. Patch test is intended to identify skin reaction only; it will not necessarily predict sensitization or irritation secondary to inhalation. Read the product package insert completely.

Section VIII - Control Measures #99-024

Respiratory Protection (Specify Type)

For manufacturing/filling, wear a NIOSH-approved respirator if constitutent TLVs are exceeded. For spill management, use an approved self-contained breathing apparatus. For product use, respiratory protection is generally unnecessary.

Ventilation	Local Exhaust	Recommended	Special
	Mechanical(General)	Generally Acceptable	Other

Protective Gloves

Plastic or rubber gloves.

Other Protective Clothing or Equipment

Safety glasses with side shields and protective clothing for bulk quantities.

Work/Hygienic Practices

OSHA hazard classification: Irritant, slightly toxic, possible sensitizer.

DOT classification: Bulk - Not regulated.
Finished Product - Not regulated.

Material Safety Data Sheet

May be used to comply with
OSHA's Hazard Communication Standard
29 CFR 1910.1200. Standard must be
consulted for specific requirements

U.S. Department of Labor **#99-025**
Occupation Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY
Aqueous Perm Wave Waving/Reforming Lotions

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name L'Oreal USA Products, Inc.	Emergency Telephone Number (800) 535-5053 (Int'l 352-323-3500)
Address (Number, Street, City, State, and ZIP Code) 111 Terminal Avenue	Telephone Number For Information (732) 499-2745
Clark, NJ 07066	Date Prepared December 18, 2003
	Signature of Preparer (optional) GCD

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity;Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Ammonium Thioglycolate	None			<15
Ethanolamine Thioglycolate	None			<5
Ammonium Hydroxide		25 ppm		<2

Section III - Physical/Chemical Characteristics

Boiling Point	~212°F	Specific Gravity (H2O = 1)	~1
Vapor Pressure (mm Hg)	N/A	Melting Point	N/A
Vapor Density (AIR = 1)	<1	Evaporation Rate (Butyl Acetate = 1)	<1

Solubility in Water
Miscible pH = 5-10

Appearance and Odor
Clear or slightly colored water-thin to viscous liquid with an ammonical/sulfurous odor.

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
>200°F (closed cup)	None	N/A	N/A

Extinguishing Media
Not applicable.

Special Fire Fighting Procedures
Not applicable.

Unusual Fire and Explosion Hazards
Not applicable.

Section V - Reactivity Data

#99-025

Stability			Conditions to Avoid
	Unstable		
	Stable	X	Avoid excessive heat.

Incompatibility (Materials to Avoid)

Metallic stirrers and bowls, iron, nickel, oxidizing agents, and acids.

Hazardous Decomposition or Byproducts

Hydrogen sulfide, sulfur dioxide, sulfur trioxide.

Hazardous Polymerization			Conditions to Avoid
	May Occur		
	Will Not Occur	X	None known.

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	Yes	Yes	Not likely.

Health Hazards (Acute and Chronic)

Harmful if swallowed, inhaled, or absorbed through skin. This product may cause serious irritant, respiratory, and/or allergic reactions in sensitive individuals.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	No	No	No

Signs and Symptoms of Exposure

Irritation of eyes, skin, and mucous membranes. Possible irritant/allergic dermatitis and respiratory signs and symptoms, the onset of which may be delayed.

Medical Conditions Generally Aggravated by Exposure

Existing dermatological conditions, such as eczema, and respiratory conditions, such as bronchial asthma and/or chronic bonchitis, may be exacerbated.

Emergency and First Aid Procedure

If swallowed, call a physician, hospital emergency room, or poison control center immediately. Induce vomiting only if recommended by medical personnel. Get prompt medical attention. If affected by inhalation, move to fresh air. If symptoms persist, get medical attention. If eye or skin contact occurs, immediately flush with water and get medical attention if irritation occurs.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled

Dike and contain the free liquid, if any, and absorb on vermiculite, spill pillows, or other suitable absorbant material. Place spent absorbants in proper containers for disposal.

Waste Disposal Method

This material is not regulated under RCRA. Accordingly, incineration at a non-hazardous waste treatment facility is the preferred method of disposal.

Precautions to be Taken in Handling and Storage

Use only with adequate ventilation and avoid inhalation. Avoid contact with eyes and skin (other than areas of application). Do not inhale or ingest. Prepare and use in a well-ventilated area. To assure maximum shelf-life, avoid direct sunlight.

Other Precautions

For external use only. Use only as directed. Keep out of reach of children. Patch test is intended to identify skin reaction only; it will not necessarily predict sensitization or irritation secondary to inhalation. Read the product package insert completely.

Section VIII - Control Measures #99-025

Respiratory Protection (Specify Type)

For manufacturing/filling, wear a NIOSH-approved respirator if constitutent TLVs are exceeded. For spill management, use an approved self-contained breathing apparatus. For product use, respiratory protection is generally unnecessary.

Ventilation	Local Exhaust	Recommended	Special
	Mechanical(General)	Generally Acceptable	Other

Protective Gloves

Plastic or rubber gloves.

Other Protective Clothing or Equipment

Safety glasses with side shields and protective clothing for bulk quantities.

Work/Hygienic Practices

OSHA hazard classification: Irritant, slightly toxic, possible sensitizer.
DOT classification: Bulk - Not regulated.
Finished Product - Not regulated.

Material Safety Data Sheet

May be used to comply with

OSHA's Hazard Communication Standard
29 CFR 1910.1200. Standard must be
consulted for specific requirements

U.S. Department of Labor **#99-027**
Occupation Safety and Health Administration

(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY	*Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.*
Perm Wave Neutralizers/Bonding Lotions	

Section I

Manufacturer's Name	Emergency Telephone Number
L'Oreal USA Products, Inc.	(800) 535-5053 (Int'l 352-323-3500)
Address (Number, Street, City, State, and ZIP Code)	**Telephone Number For Information**
111 Terminal Avenue	(732) 499-2745
	Date Prepared
Clark, NJ 07066	September 22, 2004
	Signature of Preparer (optional)
	GCD

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity;Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Hydrogen Peroxide	1 ppm			≤4%

Section III - Physical/Chemical Characteristics

Boiling Point		Specific Gravity (H2O = 1)	
	~212°F		~1
Vapor Pressure (mm Hg)		**Melting Point**	
	N/A		N/A
Vapor Density (AIR = 1)		**Evaporation Rate (Butyl Acetate = 1)**	
	N/A		<1

Solubility in Water
Miscible pH = 2.5-3.5

Appearance and Odor
Clear to white thin liquid with a faint odor.

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
>200°F (closed cup)	None	N/A	N/A

Extinguishing Media
Use media appropriate for materials actually involved in the fire.

Special Fire Fighting Procedures
Upon decomposition, peroxides yield oxygen and may thereby stimulate the combustion of flammable and combustible materials. Extinguish fires with media appropriate for the burning material.

Unusual Fire and Explosion Hazards
Caution: Oxidizer. Residual product on towels, sponges, or mops may cause fire. Rinse towels thoroughly before disposal. Rinse sponges and mops thoroughly before storage.

Section V - Reactivity Data

#99-027

Stability			Conditions to Avoid	
	Unstable			Avoid contact with iron, zinc, and reducing agents.
	Stable	X		

Incompatibility (Materials to Avoid)

Organic compounds (including flammables and combustibles), iron, zinc, and reducing agents.

Hazardous Decomposition or Byproducts

None known.

Hazardous Polymerization			Conditions to Avoid
	May Occur		None known.
	Will Not Occur	X	

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	Yes	Yes	Not likely.

Health Hazards (Acute and Chronic)

May cause skin and severe eye irritation. Harmful if swallowed. May cause severe irritation of gastric mucous membranes if swallowed.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	No	No	No

Signs and Symptoms of Exposure

Irritation of skin, eyes, and/or mucous membranes.

Medical Conditions Generally Aggravated by Exposure

None known.

Emergency and First Aid Procedure

If swallowed, drink one or two glasses of water or milk. Call a physician, hospital emergency room, or poison control center immediately. Do not induce vomiting. Get medical attention. If in eyes, flush with water for at least 15 minutes and get medical attention. If on skin, flush with water, then wash with soap and plenty of water. Consult a physician if irritation occurs.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled

For small spills, wipe up with paper towels or a sponge. Wash area with water. Rinse paper towels, sponges, or mops thoroughly prior to disposal or storage. For large spills, dike and contain the free liquid. Use absorbant material to solidify spill and then place in proper containers for disposal.

Waste Disposal Method

Although dilute (<8%) hydrogen peroxide solutions are not regulated as hazardous wastes under RCRA, physical and/or chemical deactivation/degredation of the peroxide solution is the recommended method of treatment and disposal for these products.

Precautions to be Taken in Handling and Storage

Do not use or store with or near fuels, solvents, or other organic materials. Avoid iron, zinc, and reducing agents. Store in a cool place away from direct sunlight. Keep out of reach of children.

Other Precautions

For external use only. Use only as directed.

Section VIII - Control Measures #99-027

Respiratory Protection (Specify Type)

None required for product use. For handling bulk quantities, use a NIOSH-approved respirator if peroxide TLV is exceeded. For spills or fires, wear a self-contained breathing apparatus.

Ventilation	Local Exhaust	Recommended	Special
	Mechanical(General)	Acceptable	Other

Protective Gloves

Plastic or rubber.

Other Protective Clothing or Equipment

Safety glases with side shields (or full face shield) and protective clothing are recommended for manufacturing operations. Safety shower and eyewash station should be immediately available.

Work/Hygienic Practices

OSHA hazard classification: Oxidizer, irritant, slightly toxic
DOT classification: Bulk - Not regulated
Finished Product - Not regulated.

L'ORÉAL USA

SAFETY DATA SHEET

SDS # 99-028

ISSUANCE DATE: July 17, 2012

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L'Oreal USA Products, Inc.
111 Terminal Avenue
Clark, NJ 07066

24 Hour Emergency Telephone Number:
1-800-535-5053 (US)
01-352-323-3500 (Outside US)

For further information:
1-732-499-2741

Product Name: ≤ 25 Volume Hair Developer and Other Products Containing < 8% Hydrogen Peroxide

Recommendations on use: Liquid developer for promoting deposit of hair color.

Restrictions on use: Refer to product insert/container for use warnings. For external use only. Use only as directed.

SECTION 2: HAZARDS IDENTIFICATION

Signal Word: WARNING

Classification	Hazard Statement	Prevention Statements
Eye Irritation – Category 2A	Causes serious eye irritation	• Wash hands and face thoroughly after handling. • Wear eye protection/face protection. Chemical resistant goggles or a face shield is appropriate for the manufacturing environment.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

General Precautionary Statements: Keep out of reach of children. Read insert/label before use. Store in a cool place. Avoid contamination of product. Discontinue use if rash, redness, or itching occurs.

Hazards Not Otherwise Classified: Harmful if swallowed. Overexposure may cause skin dryness or slight irritation. Prolonged contact may whiten skin. May cause irritation of gastric mucous membranes if swallowed.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Only hazardous constituents associated with the product are listed below

INGREDIENT:	CAS NO.	% WT
Hydrogen Peroxide	7722-84-1	< 8%
White Mineral Oil	8042-47-5	≤ 20%

SECTION 4: FIRST AID MEASURES

Response Statements:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 20 minutes or until material is sufficiently removed from the eye. **If eye irritation persists:** Get medical advice/attention.

IF ON SKIN: Wash with plenty of water. **If skin irritation occurs:** Get medical attention. Remove contaminated clothing and launder it before reuse.

In cases where discomfort persists and/or medical attention is sought, do not use hair color products again until the specific nature of the skin reaction and the causative agent has been identified by a dermatologist and appropriate medical advice provided.

IF INHALED: Remove individual to fresh air and keep in a position comfortable for breathing. Call a Poison Control Center if individual feels unwell.

IF SWALLOWED: Do not induce vomiting. Rinse mouth with water then drink plenty of water. Never give anything by mouth to an unconscious individual. Consult a physician or Poison Control Center immediately.

SYMPTOMS/EFFECTS: Eye irritation upon contact. Possible skin dryness/irritation if overexposed. Whitening of skin upon prolonged contact.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Consult product labeling. No special advice.

SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Chemical foam, dry chemical, carbon dioxide (CO_2), or water spray. Selection of a fire extinguisher should be appropriate to address the location of the fire and other materials involved.

SPECIFIC FIRE AND EXPLOSION HAZARDS: Upon decomposition, material yields oxygen and may increase the burning rate of flammable/combustible materials. Extinguish fires with media appropriate for the burning material.

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS: Firefighters should wear self-contained breathing apparatus and full protective gear.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal degradation may produce oxides of carbon and/or nitrogen, hydrocarbons and/or derivatives. Decomposition will release oxygen which may intensify fires.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Non-Emergency Personnel Precautions: Consult trained response personnel for clean-up of large spills or in locations where providing control of the release is hazardous. Isolate the area and deny entry to unnecessary and unprotected personnel. Hazardous locations include areas where ignition sources cannot be controlled. Sections 2, 5, 7, and 8 should be consulted upon use of material, to become knowledgeable of the material's hazards and how to control associated risks.

If the location is not hazardous and only a small amount of material has been released: Dilute with water, absorb liquid with noncombustible material, and scrub the area with detergent. If potentially combustible materials (e.g. paper towels, sponges, mops) are used, rinse thoroughly prior to disposal or storage. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with Section 13 of this document.

PERSONAL PROTECTIVE EQUIPMENT: Plastic or nitrile gloves, safety glasses/goggles, and protective clothing (e.g. apron) may be required for clean-up of large spills. Respiratory protection is typically not necessary, but maybe used if occupational exposure limits are expected to be exceeded. Refer to Section 8 for additional information.

Trained Emergency Personnel Precautions: Dike and contain any free liquid. Solidify with vermiculite, spill pillows, or other suitable absorbent. Place solidified materials in containers suitable for disposal. Residual product on towels, sponges, or mops may cause spontaneous combustion. Thoroughly rinse potentially combustible material prior to disposal or storage. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with Section 13 of this document.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with skin, eyes, and clothing. Refer to Section 8 for personal protective equipment selection. Do not eat, drink, or smoke while working with material. Wash hands and face thoroughly after handling. Do not expose to heat and flame. Use only in well ventilated areas. Avoid contamination with combustible organic materials (e.g. oil, sawdust, damp paper towels, etc…), metal, powder or reducing agents. Contamination may cause decomposition, leading to fire. Never return unused material to original container. Empty containers should be rinsed with water before discarding. Use only glass, stainless steel, aluminum, or plastic utensils.

Maintain a safe work environment, including proper housekeeping practices and structurally sound/compatible containers.

Incompatible Materials: Combustibles (e.g. wood, paper, oil), organics (e.g. alcohols, glycerols, etc…), metals (e.g. iron, copper, metal alloys), concentrated mineral acids, and reducing agents.

Conditions for safe storage: Store in the original tightly capped containers away from sunlight, heat, sparks, and flame. Keep in a cool and well-ventilated area. Keep container closed when not in use. Do not store any tint, lightener lotion or bleach powder after it has been mixed with developer; the container may rupture. Store separately from any combustible materials. Decomposition of hydrogen peroxide may cause increase in pressure and possible container rupture.

Keep away from open drains and protect from releases to the environment.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS: These criteria have been published by the referenced authority to establish exposure limits in the work environment. Employee work areas should be monitored to ensure that permissible limits are not exceeded during the work day. These references do not coincide with product use. These references are meant to be in association with the manufacturing environment.

OCCUPATIONAL EXPOSURE VALUES:

Component Name (CAS-No.)	Reference	TWA		STEL/CEILING	
		ppm	mg/m^3	ppm	mg/m^3
Hydrogen Peroxide (7722-84-1)	OSHA PEL	1	1.4	--	--
	ACGIH TLV	1	1.4	--	--
	NIOSH REL	1	1.4	--	--
Mineral Oil (Highly Refined)	ACGIH TLV	--	5 (Inhalable)	--	--
Oil Mist, Mineral (8012-95-1)	OSHA PEL	--	5	--	--
	NIOSH REL	--	5	--	10

WORK HYGIENIC PRACTICES: Ensure all work surfaces are maintained to prevent contamination.

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized. This ventilation should be compatible with the control of oxidizing materials. Exhaust ventilation should be utilized to maintain air concentrations of material below the occupational exposure guidelines noted above.

PERSONAL PROTECTIVE EQUIPMENT: Consistent with good hygiene practices, personal protective equipment (PPE) should be used in conjunction with other control measures including engineering controls, ventilation and isolation. See also Section 5 of this document for PPE advice, in the event of an emergency.

Eye/Face Protection (Non-Emergency): None required for product use. For handling large quantities of material, safety glasses with side shields/goggles are recommended.

Skin Protection (Non-Emergency): None required for product use. For handling large quantities of material, such as in product manufacturing, butyl rubber, nitrile rubber, or viton gloves should be considered for use. Tyvek clothing may also be suitable for handling large quantities of material in the manufacturing environment.

Respiratory Protection (Non-Emergency): Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear to white water-thin liquid or viscous creamy emulsion.

ODOR: Material has faint fragranced odor.

ODOR THRESHOLD:	Not Available
pH:	2.0 – 4.3
MELTING/FREEZING POINT:	**F:** ~32 **C:** ~0
BOILING POINT:	**F:** ~212 **C:** ~100
FLASH POINT:	**F:** >200 **C:** >93.4 **METHOD USED:** Not Applicable
EVAPORATION RATE:	<1 for product **(Butyl acetate = 1)**
FLAMMABILITY:	Not Applicable
FLAMMABLE LIMITS IN AIR:	Not Available
VAPOR PRESSURE (mmHg):	**@ 86 F; 30 C:** ~31
VAPOR DENSITY (AIR = 1):	Not Available
RELATIVE DENSITY (H2O = 1):	≥ 0.93
SOLUBILITY IN WATER:	Miscible
PARTITION COEFFICIENT:	log P_{ow}: -1.1 (20% H_2O_2 Solution)
AUTOIGNITION TEMPERATURE:	Not Available
DECOMPOSITION TEMPERATURE:	Not Available
VISCOSITY:	Not Available (free flowing to creamy emulsion)

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: Contained material may show increases in pressure upon exposure to radiant heat (sunlight) or sources of ignition.

STABILITY: Product is stable under standard pressure and temperature.

POSSIBILITY OF HAZARDOUS REACTIONS: Contact with combustible materials may lead to spontaneous combustion. Hazardous polymerization is not expected to occur.

CONDITIONS TO AVOID: Heat and sunlight. Contamination.

INCOMPATIBILITY (MATERIALS TO AVOID): Combustibles (e.g. wood, paper, oil), organics (e.g. alcohols, glycerols, etc…), metals (e.g. iron, copper, metal alloys), concentrated mineral acids, and reducing agents.Do not use metallic bowls and stirrers.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal degradation may produce oxides of carbon and/or nitrogen, hydrocarbons and/or derivatives. Decomposition will release oxygen which may intensify fires.

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS:

ACUTE HEALTH EFFECTS:
SKIN CORROSION/IRRITATION: Overexposure may cause skin irritation or dryness
SERIOUS EYE DAMAGE/IRRITAION: Causes eye irritation
RESPIRATORY/SKIN SENSITIZATION: None expected
INGESTION: Harmful if swallowed. May cause irritation of gastric mucous membranes if swallowed.
INHALATION: May cause mild transient respiratory irritation

ROUTES OF EXPOSURE: Eyes, skin, inhalation, ingestion

SYMPTOMS: Symptoms may include watering, stinging, and redness of eye or blurry vision with direct contact. Prolonged contact may cause temporary whitening of the skin; redness and blisters may develop if skin is not washed promptly.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Pre-existing dermatitis made be made worse by exposure.

ACUTE TOXICOLOGY DATA FOR COMPONENTS

	Route	Species	Test Results
Hydrogen Peroxide (10%)	Oral LD_{50}	Rat	>5,000 mg/kg
Hydrogen Peroxide (70%)	Dermal LD_{50}	Rabbit	9,200 mg/kg
Hydrogen Peroxide (35%)	Dermal LD_{50}	Rabbit	>2,000 mg/kg
Hydrogen Peroxide (50%)	LC_{50} (4 hr, vapor)	Rat	170 mg/m^3
Hydrogen Peroxide (70%)	RD_{50} (aerosol)	Mouse	665 mg/m^3
White Mineral Oil	Oral LD_{50}	Rat	> 5,000 mg/kg
White Mineral Oil	Dermal LD_{50}	Rabbit	> 2,000 mg/kg
White Mineral Oil	LC_{50} (4 hr, Mists)	Rat	> 5.2 mg/L

Skin Corrosion/Irritation:
Hydrogen Peroxide: 3-8% - Not Irritating; 10% - Slightly Irritating; 35% - Moderately Irritating (1.6/8.0); >50% - Corrosive
Mineral Oil: Not Irritating

Serious Eye Damage/Irritation:
Hydrogen Peroxide: 5% - Slightly Irritating; 8% - Moderately Irritating; 10% - Highly Irritating; 12% - Corrosive
Mineral Oil: Slightly Irritating

Skin Sensitization:
Hydrogen Peroxide: Not considered to be a sensitizer
Mineral Oil: Not considered to be a sensitizer

CHRONIC HEALTH HAZARDS:

REPEAT DOSE TOXICITY:
NOAEL (Hydrogen Peroxide, oral): 100 ppm (26 mg/kg bw male mice)
LOAEL (Hydrogen Peroxide, oral): 300 ppm (76 mg/kg bw male mice)
NOAEL (Mineral Oil, oral): 2 - 4,350 mg/kg bw male/female rats
LOAEL (Mineral Oil, oral): 1.7 - 340 mg/kg/day male/female rats

ASPIRATION:
Aspiration of mineral oil into the lungs may cause chemical pneumonitis or pulmonary edema. As a complete mixture, low volume developers containing mineral oil are not expected to pose an aspiration hazard.

CARCINOGENICITY:

Component Name (CAS-No.)	OSHA	ACGIH	NTP	IARC
Hydrogen Peroxide (7722-84-1)	--	TLV-A3	--	IARC-3
Mineral Oils, highly refined	--	TLV-A4	--	IARC-3

Notes:
ACGIH TLV-A3 - This reference indicates that the material is "Confirmed Animal Carcinogen with Unknown Relevance to Humans".
*ACHIH TLV-*A4 – This reference indicates that the material is "Not Classifiable as a Human Carcinogen".
IARC-3 **-** This reference indicates that the material is "Unclassifiable as to Carcinogenicity to Humans".

MUTAGENICITY:
Hydrogen peroxide (in high percentages) has been shown to be a mutagen in a variety of *in vitro* test systems. Available studies are not in support of a significant mutagenicity for hydrogen peroxide under *in vivo* conditions.

Mineral Oil has provided negative results in a variety of *in vitro* tests.

REPRODUCTIVE TOXICITY:
Mineral Oil: No adverse effects (NOAEL > 4,350 mg/kg bw)

DEVELOPMENTAL TOXICITY/TERATOGENICITY:
Mineral Oil: No maternal toxicity or teratogenic effects (NOAEL > 4,350 mg/kg bw)

SECTION 12: ECOLOGICAL INFORMATION

Contact with the environment should be avoided. Spills and leaks should be immediately cleaned up and removed. Published information regarding ingredients listed in this document are found below; where data is not listed, documentation was unavailable.

ACUTE AND PROLONGED TOXICITY TO FISH

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Hydrogen Peroxide	LC_{50} (US EPA)	16.4 mg/l	Pimephales promelas	96 h
Hydrogen Peroxide	LC_{50}	37.4 mg/L	Ictalurus puctatus	96 h
Mineral Oil	LC_{50}	> 1000 mg/L	Oncorhynchus mykiss	96 h

ACUTE TOXICITY TO AQUATIC INVERTEBRATES

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Hydrogen Peroxide	EC_{50}	2.0-2.6 mg/L	Daphnia magna	24 h
Hydrogen Peroxide	EC_{50} (US EPA)	2.4 mg/L	Daphnia pulex	48 h
Mineral Oil	EC_{50}	> 100 mg/L	Daphnia magna	48 h

TOXICITY TO AQUATIC PLANTS

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Hydrogen Peroxide	EC_{50} (OECD 201)	2.5 mg/L	Chlorella vulgaris	72 h
Hydrogen Peroxide	EC_{50} (OECD 201)	0.63 mg/L	Sceletonema costatum	72 h
Mineral Oil	EC_{50} (OECD 201)	≥ 100 mg/L	Pseudokirchneriella subcapitata	72 h

TOXICITY TO MICROORGANISMS

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Hydrogen Peroxide	EC_{50} (OECD 209)	466 mg/l	Activated Sludge	30 min

PERSISTENCY AND DEGRADABILITY:

Hydrogen Peroxide:
Hydrogen peroxide is biologically degradable. Hydrogen peroxide can be considered as readily biodegradable in the aquatic systems. In soil hydrogen peroxide is normally a short-lived substance. Hydrogen peroxide degrades in the atmosphere within the light spectrum with hydroxyl radicals in the gas phase and subsequent photolysis.

Mineral Oil:
Mineral oil has shown evidence of primary biodegradability. Mineral oil has little to no tendency to partition to air, but any material that does will be rapidly photodegraded.

BIOACCUMULATIVE POTENTIAL:

Hydrogen peroxide is reactive and short-lived polar substance and no bioaccumulation is expected. The estimated log K_{ow} of about -1.5 indicates negligible potential of bioconcentration in aquatic organisms. BCFs calculated according to the TGD for fish and earthworm are low, 1.4 and 3.3, respectively.

SECTION 13: DISPOSAL CONSIDERATIONS

Those responsible for the performance of disposal, recycling or reclamation activities should refer to section 8 of this document for advice on personal protective equipment and exposure controls.

WASTE DISPOSAL CONTAINERS: Containers should be completely closed and of sturdy construction. Packaging materials should not include incompatible materials noted in Section 10. Plastic packaging is recommended.

WASTE DISPOSAL METHOD: Low volume developer products are non-hazardous materials when intended for disposal. Although dilute (<8%) hydrogen peroxide solutions are not regulated as hazardous wastes under RCRA, physical and/or chemical deactivation/degradation of the peroxide solution is the recommended method of treatment and disposal for these products.

RCRA HAZARD CLASS: Not regulated

Follow all local governmental requirements intended for disposal.

SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation

- **In Consumer Packaging:** Not regulated
- **OTHER THAN CONSUMER PACKAGING:** Not regulated

Transport Via Water

- **In Consumer Packaging:** Not regulated
- **OTHER THAN CONSUMER PACKAGING:** Not regulated

Transport Via Air

- **In Consumer Packaging:** Not regulated
- **OTHER THAN CONSUMER PACKAGING:** Not regulated

SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes: Health: 2 Fire: 0 Reactivity: 1 Other: None

Workplace Hazardous Materials Identification System: Class D; Division 2, Subdivision B; Eye Irritation

This regulatory information represents the product, in its consumer packaging.

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: This document replaces the version dated June 22, 2009 and all previous versions of safety data sheets related to this product.

Preparer: Ronald Weslosky/Chandra L. Jennings

L'ORÉAL USA

SAFETY DATA SHEET

SDS # 99-029

ISSUANCE DATE: July 17, 2012

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L'Oreal USA Products, Inc.
111 Terminal Avenue
Clark, NJ 07066

24 Hour Emergency Telephone Number:
1-800-535-5053 (US)
01-352-323-3500 (Outside US)

For further information:
1-732-499-2741

Product Name: > 25 Volume Hair Developer and Other Products Containing ≥ 8% Hydrogen Peroxide

Recommendations on use: Liquid developer for promoting deposit of hair color.

Restrictions on use: Refer to product insert/container for use warnings. For external use only. Use only as directed.

SECTION 2: HAZARDS IDENTIFICATION

Signal Word: DANGER

	Classification	Hazard Statement	Prevention Statements
	Serious Eye Damage – Category 1	Causes serious eye damage	• Wear eye protection/face protection. Chemical resistant goggles or a face shield is appropriate for the manufacturing environment. • Wash hands and face thoroughly after handling.
	Oxidizing Liquid – Category 3	May intensify fire, oxidizer	• Keep away from heat. • Storage away from combustibles (e.g. paper), organics, and metals (e.g. iron). • Take precaution to avoid mixing with combustible and organic materials. • Wear protective gloves and eye/face protection when in the manufacturing environment.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

General Precautionary Statements: Keep out of reach of children. Read insert/label before use. Store in a cool place. Avoid contamination of product. Discontinue use if rash, redness, or itching occurs.

Hazards Not Otherwise Classified: Harmful if swallowed. Overexposure may cause skin dryness or slight irritation. Prolonged contact may whiten skin. May cause irritation of gastric mucous membranes if swallowed.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Only hazardous constituents associated with the product are listed below

INGREDIENT:	CAS NO.	% WT
Hydrogen Peroxide	7722-84-1	8% - 12%
White Mineral Oil	8042-47-5	≤ 50%

SECTION 4: FIRST AID MEASURES

Response Statements:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 20 minutes or until material is sufficiently removed from the eye. **If eye irritation persists:** Immediately call a poison control center or get medical advice/attention.

IF ON SKIN: Wash with plenty of water. **If skin irritation occurs:** Get medical attention. Remove contaminated clothing and launder it before reuse.

In cases where discomfort persists and/or medical attention is sought, do not use hair color products again until the specific nature of the skin reaction and the causative agent has been identified by a dermatologist and appropriate medical advice provided.

IF INHALED: Remove individual to fresh air and keep in a position comfortable for breathing. Call a Poison Control Center if individual feels unwell.

IF SWALLOWED: Do not induce vomiting. Rinse mouth with water then drink plenty of water. Never give anything by mouth to an unconscious individual. Consult a physician or Poison Control Center immediately.

SYMPTOMS/EFFECTS: Eye irritation upon contact. Possible skin dryness/irritation if overexposed. Whitening of skin upon prolonged contact.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Consult product labeling. No special advice.

SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Use chemical foam, dry chemical, carbon dioxide (CO_2), or water spray. Selection of a fire extinguisher should be appropriate to address the location of the fire and other materials involved.

SPECIFIC FIRE AND EXPLOSION HAZARDS: Upon decomposition, material yields oxygen and may increase the burning rate of flammable/combustible materials. Extinguish fires with media appropriate for the burning material.

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS: Firefighters should wear self-contained breathing apparatus and full protective gear.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal degradation may produce oxides of carbon and/or nitrogen, hydrocarbons and/or derivatives. Decomposition will release oxygen which may intensify fires.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Non-Emergency Personnel Precautions: Consult trained response personnel for clean-up of large spills or in locations where providing control of the release is hazardous. Isolate the area and deny entry to unnecessary and unprotected personnel. Hazardous locations include areas where ignition sources cannot be controlled. Sections 2, 5, 7, and 8 should be consulted upon use of material, to become knowledgeable of the material's hazards and how to control associated risks.

If the location is not hazardous and only a small amount of material has been released: Dilute with water, absorb liquid with noncombustible material, and scrub the area with detergent. If potentially combustible materials (e.g. paper towels, sponges, mops) are used, rinse thoroughly prior to disposal or storage. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with Section 13 of this document.

PERSONAL PROTECTIVE EQUIPMENT: Plastic or nitrile gloves, safety glasses/goggles, and protective clothing (e.g. apron) may be required for clean-up of large spills. Respiratory protection is typically not necessary, but may be used if occupational exposure limits are expected to be exceeded. Refer to Section 8 for additional information.

Trained Emergency Personnel Precautions: Dike and contain any free liquid. Solidify with vermiculite, spill pillows, or other suitable absorbent. Place solidified materials in containers suitable for disposal. Residual product on towels, sponges, or mops may cause spontaneous combustion. Thoroughly rinse potentially combustible material prior to disposal or storage. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with Section 13 of this document.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with skin, eyes, and clothing. Refer to Section 8 for personal protective equipment selection. Do not eat, drink, or smoke while working with material. Wash hands and face thoroughly after handling. Do not expose to heat and flame. Use only in well ventilated areas. Avoid contamination with combustible organic materials (e.g. oil, sawdust, damp paper towels, etc…), metal, powder or reducing agents. Contamination may cause decomposition, leading to fire. Never return unused material to original container. Empty containers should be rinsed with water before discarding. Use only glass, stainless steel, aluminum, or plastic utensils.

Maintain a safe work environment, including proper housekeeping practices and structurally sound/compatible containers.

Incompatible Materials: Combustibles (e.g. wood, paper, oil), organics (e.g. alcohols, glycerols, etc…), metals (e.g. iron, copper, metal alloys), concentrated mineral acids, and reducing agents.

Conditions for safe storage: Store in the original tightly capped containers away from sunlight, heat, sparks, and flame. Keep in a cool and well-ventilated area. Keep container closed when not in use. Do not store any tint, lightener lotion or bleach powder after it has been mixed with developer; the container may rupture. Store separately from any combustible materials. Decomposition of hydrogen peroxide may cause increase in pressure and possible container rupture.

Keep away from open drains and protect from releases to the environment.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS: These criteria have been published by the referenced authority to establish exposure limits in the work environment. Employee work areas should be monitored to ensure that permissible limits are not exceeded during the work day. These references do not coincide with product use. These references are meant to be in association with the manufacturing environment.

OCCUPATIONAL EXPOSURE VALUES:

Component Name (CAS-No.)	Reference	TWA		STEL/CEILING	
		ppm	mg/m^3	ppm	mg/m^3
Hydrogen Peroxide (7722-84-1)	OSHA PEL	1	1.4	--	--
	ACGIH TLV	1	1.4	--	--
	NIOSH REL	1	1.4	--	--
Mineral Oil (Highly Refined)	ACGIH TLV	--	5 (Inhalable)	--	--
Oil Mist, Mineral (8012-95-1)	OSHA PEL	--	5	--	--
	NIOSH REL	--	5	--	10

WORK HYGIENIC PRACTICES: Ensure all work surfaces are maintained to prevent contamination.

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized. This ventilation should be compatible with the control of oxidizing materials. Exhaust ventilation should be utilized to maintain air concentrations of material below the occupational exposure guidelines noted above.

PERSONAL PROTECTIVE EQUIPMENT: Consistent with good hygiene practices, personal protective equipment (PPE) should be used in conjunction with other control measures including engineering controls, ventilation and isolation. See also Section 5 of this document for PPE advice, in the event of an emergency.

Eye/Face Protection (Non-Emergency): None required for product use. For handling large quantities of material, safety glasses with side shields/goggles are recommended.

Skin Protection (Non-Emergency): None required for product use. For handling large quantities of material, such as in product manufacturing, butyl rubber, nitrile rubber, or viton gloves should be considered for use. Tyvek clothing may also be suitable for handling large quantities of material in the manufacturing environment.

Respiratory Protection (Non-Emergency): Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear to white water-thin liquid or viscous creamy emulsion.

ODOR: Material has faint fragranced odor.

ODOR THRESHOLD:	Not Available
pH:	2.0 – 4.3
MELTING/FREEZING POINT:	**F:** ~32 **C:** ~0
BOILING POINT:	**F:** ~212 **C:** ~100
FLASH POINT:	**F:** >200 **C:** >93.4 **METHOD USED:** Not Applicable
EVAPORATION RATE:	<1 for product **(Butyl acetate = 1)**
FLAMMABILITY:	Not Applicable
FLAMMABLE LIMITS IN AIR:	Not Available
VAPOR PRESSURE (mmHg):	**@ 86 F; 30 C:** ~31
VAPOR DENSITY (AIR = 1):	Not Available
RELATIVE DENSITY (H2O = 1):	≥ 0.93
SOLUBILITY IN WATER:	Miscible
PARTITION COEFFICIENT:	log P_{ow}: -1.1 (20% H_2O_2 Solution)
AUTOIGNITION TEMPERATURE:	Not Available
DECOMPOSITION TEMPERATURE:	Not Available
VISCOSITY:	Not Available (free flowing to creamy emulsion)

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: Contained material may show increases in pressure upon exposure to radiant heat (sunlight) or sources of ignition.

STABILITY: Product is stable under standard pressure and temperature.

POSSIBILITY OF HAZARDOUS REACTIONS: Contact with combustible materials may lead to spontaneous combustion. Hazardous polymerization is not expected to occur.

CONDITIONS TO AVOID: Heat and sunlight. Contamination.

INCOMPATIBILITY (MATERIALS TO AVOID): Combustibles (e.g. wood, paper, oil), organics (e.g. alcohols, glycerols, etc…), metals (e.g. iron, copper, metal alloys), concentrated mineral acids, and reducing agents.Do not use metallic bowls and stirrers.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal degradation may produce oxides of carbon and/or nitrogen, hydrocarbons and/or derivatives. Decomposition will release oxygen which may intensify fires.

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS:

ACUTE HEALTH EFFECTS:
SKIN CORROSION/IRRITATION: Overexposure may cause skin irritation or dryness
SERIOUS EYE DAMAGE/IRRITAION: Causes eye damage
RESPIRATORY/SKIN SENSITIZATION: None expected
INGESTION: Harmful if swallowed. May cause irritation of gastric mucous membranes if swallowed.
INHALATION: May cause mild transient respiratory irritation

ROUTES OF EXPOSURE: Eyes, skin, inhalation, ingestion

SYMPTOMS: Symptoms may include watering, stinging, and redness of eye or blurry vision with direct contact. Prolonged contact may cause temporary whitening of the skin; redness and blisters may develop if skin is not washed promptly.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Pre-existing dermatitis made be made worse by exposure.

ACUTE TOXICOLOGY DATA FOR COMPONENTS

	Route	Species	Test Results
Hydrogen Peroxide (10%)	Oral LD_{50}	Rat	>5,000 mg/kg
Hydrogen Peroxide (70%)	Dermal LD_{50}	Rabbit	9,200 mg/kg
Hydrogen Peroxide (35%)	Dermal LD_{50}	Rabbit	>2,000 mg/kg
Hydrogen Peroxide (50%)	LC_{50} (4 hr, vapor)	Rat	170 mg/m^3
Hydrogen Peroxide (70%)	RD_{50} (aerosol)	Mouse	665 mg/m^3
White Mineral Oil	Oral LD_{50}	Rat	> 5,000 mg/kg
White Mineral Oil	Dermal LD_{50}	Rabbit	> 2,000 mg/kg
White Mineral Oil	LC_{50} (4 hr, Mists)	Rat	> 5.2 mg/L

Skin Corrosion/Irritation:
Hydrogen Peroxide: 3-8% - Not Irritating; 10% - Slightly Irritating; 35% - Moderately Irritating (1.6/8.0); >50% - Corrosive
Mineral Oil: Not Irritating

Serious Eye Damage/Irritation:
Hydrogen Peroxide: 5% - Slightly Irritating; 8% - Moderately Irritating; 10% - Highly Irritating; 12% - Corrosive
Mineral Oil: Slightly Irritating

Skin Sensitization:
Hydrogen Peroxide: Not considered to be a sensitizer
Mineral Oil: Not considered to be a sensitizer

CHRONIC HEALTH HAZARDS:

REPEAT DOSE TOXICITY:
NOAEL (Hydrogen Peroxide, oral): 100 ppm (26 mg/kg bw male mice)
LOAEL (Hydrogen Peroxide, oral): 300 ppm (76 mg/kg bw male mice)
NOAEL (Mineral Oil, oral): 2 - 4,350 mg/kg bw male/female rats
LOAEL (Mineral Oil, oral): 1.7 - 340 mg/kg/day male/female rats

ASPIRATION:
Aspiration of mineral oil into the lungs may cause chemical pneumonitis or pulmonary edema. As a complete mixture, low volume developers containing mineral oil are not expected to pose an aspiration hazard.

CARCINOGENICITY:

Component Name (CAS-No.)	OSHA	ACGIH	NTP	IARC
Hydrogen Peroxide (7722-84-1)	--	TLV-A3	--	IARC-3
Mineral Oils, highly refined	--	TLV-A4	--	IARC-3

Notes:
ACGIH TLV-A3 - This reference indicates that the material is "Confirmed Animal Carcinogen with Unknown Relevance to Humans".
*ACHIH TLV-*A4 – This reference indicates that the material is "Not Classifiable as a Human Carcinogen".
IARC-3 **-** This reference indicates that the material is "Unclassifiable as to Carcinogenicity to Humans".

MUTAGENICITY:
Hydrogen peroxide (in high percentages) has been shown to be a mutagen in a variety of *in vitro* test systems. Available studies are not in support of a significant mutagenicity for hydrogen peroxide under *in vivo* conditions.

Mineral Oil has provided negative results in a variety of *in vitro* tests.

REPRODUCTIVE TOXICITY:
Mineral Oil: No adverse effects (NOAEL > 4,350 mg/kg bw)

DEVELOPMENTAL TOXICITY/TERATOGENICITY:
Mineral Oil: No maternal toxicity or teratogenic effects (NOAEL > 4,350 mg/kg bw)

SECTION 12: ECOLOGICAL INFORMATION

Contact with the environment should be avoided. Spills and leaks should be immediately cleaned up and removed. Published information regarding ingredients listed in this document are found below; where data is not listed, documentation was unavailable.

ACUTE AND PROLONGED TOXICITY TO FISH

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Hydrogen Peroxide	LC_{50} (US EPA)	16.4 mg/l	Pimephales promelas	96 h
Hydrogen Peroxide	LC_{50}	37.4 mg/L	Ictalurus puctatus	96 h
Mineral Oil	LC_{50}	> 1000 mg/L	Oncorhynchus mykiss	96 h

ACUTE TOXICITY TO AQUATIC INVERTEBRATES

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Hydrogen Peroxide	EC_{50}	2.0-2.6 mg/L	Daphnia magna	24 h
Hydrogen Peroxide	EC_{50} (US EPA)	2.4 mg/L	Daphnia pulex	48 h
Mineral Oil	EC_{50}	> 100 mg/L	Daphnia magna	48 h

TOXICITY TO AQUATIC PLANTS

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Hydrogen Peroxide	EC_{50} (OECD 201)	2.5 mg/L	Chlorella vulgaris	72 h
Hydrogen Peroxide	EC_{50} (OECD 201)	0.63 mg/L	Sceletonema costatum	72 h
Mineral Oil	EC_{50} (OECD 201)	≥ 100 mg/L	Pseudokirchneriella subcapitata	72 h

TOXICITY TO MICROORGANISMS

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Hydrogen Peroxide	EC_{50} (OECD 209)	466 mg/l	Activated Sludge	30 min

PERSISTENCY AND DEGRADABILITY:

Hydrogen Peroxide:
Hydrogen peroxide is biologically degradable. Hydrogen peroxide can be considered as readily biodegradable in the aquatic systems. In soil hydrogen peroxide is normally a short-lived substance. Hydrogen peroxide degrades in the atmosphere within the light spectrum with hydroxyl radicals in the gas phase and subsequent photolysis.

Mineral Oil:
Mineral oil has shown evidence of primary biodegradability. Mineral oil has little to no tendency to partition to air, but any material that does will be rapidly photodegraded.

BIOACCUMULATIVE POTENTIAL:

Hydrogen peroxide is reactive and short-lived polar substance and no bioaccumulation is expected. The estimated log K_{ow} of about -1.5 indicates negligible potential of bioconcentration in aquatic organisms. BCFs calculated according to the TGD for fish and earthworm are low, 1.4 and 3.3, respectively.

SECTION 13: DISPOSAL CONSIDERATIONS

Those responsible for the performance of disposal, recycling or reclamation activities should refer to section 8 of this document for advice on personal protective equipment and exposure controls.

WASTE DISPOSAL CONTAINERS: Containers should be completely closed and meet applicable USDOT packaging specifications. Packaging materials should not include incompatible materials noted in Section 10. Plastic packaging is recommended.

WASTE DISPOSAL METHOD: High volume developer products are RCRA ignitable hazardous waste when intended for disposal. Physical and/or chemical deactivation/degradation of the peroxide solution is the recommended method of treatment and disposal for these products.

RCRA HAZARD CLASS: D001

Follow all local governmental requirements intended for disposal.

SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation

- **IN CONSUMER PACKAGING:** Limited Quantity/Consumer Commodity (≤ 5L)

- **OTHER THAN CONSUMER PACKAGING:**
  UN ID Number: UN 2984
  Proper Shipping Name: Hydrogen Peroxide, aqueous solutions
  Hazard Class: 5.1
  Packing Group: III
  Label Statements: Oxidizer (Division 5.1)

Transport Via Water

- **IN CONSUMER PACKAGING:** Limited Quantity (≤ 5L)
  UN ID Number: UN 2984
  Proper Shipping Name: Hydrogen Peroxide, aqueous solutions
  Hazard Class: 5.1
  Packing Group: III
  Label Statements: Oxidizer (Division 5.1)

- **OTHER THAN CONSUMER PACKAGING:**
  UN ID NUMBER: UN 2984
  PROPER SHIPPING NAME: Hydrogen Peroxide, aqueous solutions
  HAZARD CLAS: 5.1
  PACKING GROUP: III
  LABEL STATEMENTS: Oxidizer (Division 5.1)

Transport Via Air (Domestic/International)

- **IN CONSUMER PACKAGING:** Limited Quantity (≤ 0.5L)
  UN ID Number: UN 2984
  Proper Shipping Name: Hydrogen Peroxide, aqueous solutions
  Hazard Class: 5.1
  Packing Group: III
  Label Statements: Oxidizer (Division 5.1)

- **OTHER THAN CONSUMER PACKAGING:**
  UN ID Number: UN 2984
  Proper Shipping Name: Hydrogen Peroxide, aqueous solutions
  Hazard Class: 5.1
  Packing Group: III
  Label Statements: Oxidizer (Division 5.1)

SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes: Health: 3 Fire: 0 Reactivity: 1 Other: None

Workplace Hazardous Materials Identification System: Class C; Oxidizing Material ; Class E; Corrosive Material

This regulatory information represents the product, in its consumer packaging.

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: This document replaces the version dated June 22, 2009 and all previous versions of safety data sheets related to this product.

Preparer: Ronald Weslosky/Chandra L. Jennings

L'ORÉAL USA

MATERIAL SAFETY DATA SHEET

MSDS # 99-030

MSDS DATE: March 17, 2008

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L'Oreal USA Products, Inc.
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
800-535-5053 (International: 352-323-3500)

For further information:
732-499-2741

Product Name: Oxidizing Hair Bleach Products

Recommendations on use: For lightening of hair color

CAUTION: Oxidizing solid which in itself is not necessarily combustible, but may generally cause or contribute to the combustion of other materials by yielding oxygen. Store at room temperature. Keep from heat and moisture. Do not use metal utensils with this product. For external use only. Use only as directed. Keep out of reach of children.

Refer to product insert or container for additional use warnings.

SECTION 2: HAZARDS IDENTIFICATION

Finely divided, free-flowing powder. May be white or colored and could have a possible ammonia odor or enhanced fragrance.

Decomposes in contact with moisture/excessive heat. May cause release of oxygen and oxides of sulfur which support combustion. Decomposition could form a high temperature melt. See section ten of this document (Stability and Reactivity).

May have irritating properties to eyes/respiratory system and skin. May have the potential to cause skin/respiratory sensitization.

OSHA reactive substance, oxidizer; **DOT** 5.1 Oxidizer; **WHMIS** Class C; Oxidizing material. See section fifteen of this document (Regulatory Information).

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT:	CAS NO.	% WT
Potassium Persulfate	7727-21-1	<61
Sodium Persulfate	7775-27-1	<11

SECTION 4: FIRST AID MEASURES

EYES: Immediately flush with luke-warm water and get medical attention if irritation persists.

SKIN: Immediately flush with luke-warm water and get medical attention if irritation persists.

INGESTION: If swallowed, do not induce vomiting. Call a physician, hospital, emergency room or poison control center immediately. Get prompt medical attention.

INHALATION: Move to fresh air. If irritation symptoms persist, get medical attention.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Acute health hazards may be delayed. Most common symptoms include irritating properties to eyes/respiratory system and skin.

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SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: 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.

SPECIAL FIRE FIGHTING PROCEDURES: Upon decomposition, persulfates yield oxygen and may thereby stimulate combustion of flammable and combustible materials. Extinguish fires with media appropriate for the burning material.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Caution: 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.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxygen, chlorine, oxides of sulfur, sodium oxide and ammonia

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: For small spills, wipe up with damp paper towels or sponge. Wash area completely with water. Rinse paper towels, sponges or mops thoroughly prior to disposal or storage. For larger quantities, sweep up and place in UN specification drum(s) for disposal. During clean-up, do not contaminate powder with organic material. Keep drummed waste cool and dry pending disposal.

PERSONAL PROTECTIVE EQUIPMENT: Plastic or rubber gloves, respirator, eye protection and apron may be required for clean-up of large spills.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Use only with adequate ventilation and avoid inhalation. Avoid contact with eyes and skin (other than areas of application). Do not inhale or ingest. Prepare and use in a well-ventilated area. Do not store with or near fuels, solvents or other organic materials. Avoid heat, moisture and reducing agents.

Refer to product insert or container for additional use warnings.

OTHER PRECAUTIONS: 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.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized.

VENTILATION: Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the manufacturing of product **--** Local Exhaust: Explosion proof. Mechanical (general): Explosion proof.

RESPIRATORY PROTECTION: Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards. Particulate filtering cartridges should be utilized with air-purifying respiratory protection.

EYE PROTECTION: None required for product use. For handling large quantities of material, safety glasses with side shields/goggles are recommended.

SKIN PROTECTION: Plastic or rubber gloves should be worn during product application and preparation. For handling large quantities of material, such as in product manufacturing, plastic or rubber gloves should also be considered for use

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Apron may be used for product handling. Tyvek clothing may also be suitable for handling large quantities of material.

WORK HYGIENIC PRACTICES: Ensure all work surfaces are clean. Metal instruments should not be used with this product or stored inside product containers.

Occupational Exposure Values:

OSHA PEL-TWA:	None Established
ACGIH TLV-TWA:	**Sodium Persulfate//Potassium Persulfate: 0.1 mg/m3**
OSHA PEL/ACGIH TLV STEL :	None Established
OSHA PEL/ACGIH TLV CEILING:	None Established

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Finely divided, free-flowing powder. May be white or colored and could have a possible ammonia odor or enhanced fragrance.

PHYSICAL STATE: Finely divided, free-flowing powder (solid).

BOILING POINT: F: N/A **C:** N/A **MELTING POINT:** Decomposes

FREEZING POINT: F: N/A **C:** N/A

VAPOR PRESSURE (mmHg): @ F: N/A **C:** N/A

VAPOR DENSITY (AIR = 1): @ F: N/A **C:** N/A

SPECIFIC GRAVITY (H2O = 1): >1 **EVAPORATION RATE:** N/A

SOLUBILITY IN WATER: Approx 80% water soluble

FLAMMABLE LIMITS IN AIR (% BY VOLUME): UPPER: N/A **LOWER:** N/A

FLASH POINT: F: N/A **C:** N/A **METHOD USED:** N/A

AUTOIGNITION TEMPERATURE: F: N/A **C:** N/A

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Material is stable at room temperature and under dry conditions. Heat and/or moisture may cause instability.

CONDITIONS TO AVOID (STABILITY): Heat, moisture and contamination with organic materials and metal utensils.

INCOMPATIBILITY (MATERIALS TO AVOID): Organic compounds (including flammable and combustible materials) and reducing agents.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Oxygen, chlorine, oxides of sulfur, sodium oxide and ammonia

HAZARDOUS POLYMERIZATION: Will not occur **CONDITIONS TO AVOID (POLYMERIZATION):** N/A

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SECTION 11: TOXICOLOGICAL INFORMATION

CARCINOGENICITY:
OSHA: Not recognized as carcinogenic **ACGIH**: Not recognized as carcinogenic
NTP: Not recognized as carcinogenic **IARC**: Not recognized as carcinogenic

ROUTES OF EXPOSURE: Inhalation, eyes, skin

POTENTIAL HEALTH EFFECTS:

EYES: Irritation **SKIN**: Irritation, possible allergic dermatitis
INGESTION: Harmful if swallowed, slightly toxic **INHALATION**: Irritation and possible sensitization

ACUTE HEALTH HAZARDS: Irritation of eyes, skin and mucous membranes. Possible irritant/allergic dermatitis and respiratory signs and symptoms, the onset of which may be delayed.

CHRONIC HEALTH HAZARDS: Possible allergic dermatitis. Possible respiratory sensitization could occur.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Existing dermatological conditions (such as eczema) and respiratory conditions (such as bronchial asthma and/or bronchitis) may be exacerbated.

SECTION 12: ECOLOGICAL INFORMATION

The product itself has not been tested as a whole, but the following results have been associated with some of its constituents:

Potassium/Sodium Persulfate:

Bluegill sunfish, 96-hour LC50 = 771 mg/L
Rainbow Trout, 96-hour LC50 = 163 mg/L
Daphnia, 48-hour LC50 = 133 mg/L
Grass shrimp, 96 hour LC50 = 519 mg/L

CHEMICAL FATE: Biodegradability does not apply to inorganic substances.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Hair bleaching products are ignitable RCRA hazardous wastes when intended for disposal. Physical and/or chemical deactivation/degradation is the required method of treatment and disposal.

RCRA HAZARD CLASS: D001

Follow all local governmental requirements intended for disposal.

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SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation

- **In Consumer Packaging**: ORM-D; Consumer Commodity

- **OTHER THAN CONSUMER PACKAGING**:
  ID NUMBER: UN 1479
  PROPER SHIPPING NAME: Oxidizing solid, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Sodium Persulfate)
  HAZARD CLASS: 5.1
  PACKING GROUP: III
  LABEL STATEMENTS: Oxidizer 5.1 (see label on next page)

Transport Via Water

- **In Consumer Packaging**: Limited Quantity < 5 kg
  ID NUMBER: UN 1479
  PROPER SHIPPING NAME: Oxidizing solid, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Sodium Persulfate)
  HAZARD CLASS: 5.1
  PACKING GROUP: III
  LABEL STATEMENTS: Oxidizer 5.1 or LTD QTY, if applicable (see Division 5.1 label on next page)

- **OTHER THAN CONSUMER PACKAGING**:
  ID NUMBER: UN 1479
  PROPER SHIPPING NAME: Oxidizing solid, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Sodium Persulfate)
  HAZARD CLASS: 5.1
  PACKING GROUP: III
  LABEL STATEMENTS: Oxidizer 5.1 (see label on next page)

Transport Via Air

- **In Consumer Packaging**: Fully Regulated (see classification for "other than consumer packaging" below)
  - Limited quantity (maximum net quantity per package) = 10 kg

- **OTHER THAN CONSUMER PACKAGING**:
  ID NUMBER: UN 1479
  PROPER SHIPPING NAME: Oxidizing solid, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Sodium Persulfate)
  HAZARD CLASS: 5.1
  PACKING GROUP: III
  LABEL STATEMENTS: Oxidizer 5.1 (see label on next page)

Please be aware of carrier transport variations before shipping hazardous materials.

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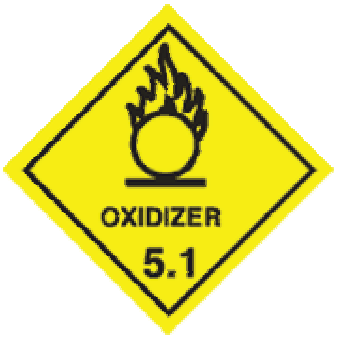
LABELS FOR THIS PRODUCT WHEN *NOT* SHIPPING AS A CONSUMER COMMODITY

Label for fully regulated materials, Division 5.1:



SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes: Health: 1 Fire: 0 Reactivity: 1 Other: OX
Hazardous Materials Identification System: Class C; Oxidizing material
Occupational Safety and Health Administration: Oxidizing material/reactive, irritant, possible sensitizer, slightly toxic
US DOT/ICAO/IMDG: See section 14 above

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: This document replaces the version dated September 15, 2004 and all previous versions of material safety data sheets related to this product.

Preparer: Chandra L. Jennings

L'ORÉAL USA

MATERIAL SAFETY DATA SHEET

MSDS # 08-048

MSDS DATE: March 17, 2008

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L'Oreal USA Products, Inc.
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
800-535-5053 (International: 352-323-3500)

For further information:
732-499-2741

Product Name: Self-heating Hair Bleaches

Recommendations on use: For lightening of hair color

CAUTION: Self-heating solid which can lead to spontaneous combustion. Store at room temperature. Keep from heat and moisture. Do not use metal utensils with this product. For external use only. Use only as directed. Keep out of reach of children.

Refer to product insert or container for additional use warnings.

SECTION 2: HAZARDS IDENTIFICATION

Thick, grainy hair paste or finely divided powder. May be white or colored and could have a possible ammonia odor or enhanced fragrance.

Could decompose in contact with moisture/excessive heat. May cause release of oxygen and oxides of sulfur which support combustion. Decomposition could form a high temperature melt. See section ten of this document (Stability and Reactivity).

May have irritating properties to eyes/respiratory system and skin. May have the potential to cause skin/respiratory sensitization. Respiratory sensitization is more common when using powered forms of hair bleach products.

OSHA reactive substance; **DOT** 4.2 spontaneously combustible solid; **WHMIS** Class B Division 6 Flammable Reactive Material (solid). See section fifteen of this document (Regulatory Information).

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT:	CAS NO.	% WT
Potassium Persulfate	7727-21-1	<61
Sodium Persulfate	7775-27-1	<11

SECTION 4: FIRST AID MEASURES

EYES: Immediately flush with water for at least fifteen minutes. Get medical attention if irritation persists.

SKIN: Wash off with water. Get medical attention if irritation persists.

INGESTION: If swallowed, do not induce vomiting. Call a physician, hospital, emergency room or poison control center immediately. Get prompt medical attention.

INHALATION: Move to fresh air. If irritation symptoms persist, get medical attention.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Acute health hazards may be delayed. Most common symptoms include irritating properties to eyes/respiratory system and skin.

SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: 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.

SPECIAL FIRE FIGHTING PROCEDURES: Upon decomposition, persulfates yield oxygen and may thereby stimulate combustion of flammable and combustible materials. Extinguish fires with media appropriate for the burning material.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Caution: Product contains oxidizing materials, but is not an oxidizing material itself. 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.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxygen, chlorine, oxides of sulfur, sodium oxide and ammonia

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: For small spills, wipe up with damp paper towels or sponge. Wash area completely with water. Rinse paper towels, sponges or mops thoroughly prior to disposal or storage. For larger quantities, pick up with shovels or sponges and place in UN specification drum(s) for disposal. During clean-up, do not contaminate product with organic material. Keep drummed waste cool and dry pending disposal.

PERSONAL PROTECTIVE EQUIPMENT: Plastic or rubber gloves, respirator, eye protection and apron may be required for clean-up of large spills.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Use only with adequate ventilation and avoid inhalation. Avoid contact with eyes and skin (other than areas of application). Do not inhale or ingest. Prepare and use in a well-ventilated area. Do not store with or near fuels, solvents or other organic materials. Avoid heat, moisture and reducing agents.

Refer to product insert or container for additional use warnings

OTHER PRECAUTIONS: 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.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized.

VENTILATION: Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the manufacturing of product **--** Local Exhaust: Explosion proof. Mechanical (general): Explosion proof.

RESPIRATORY PROTECTION: Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards. Particulate filtering cartridges may be utilized with air-purifying respiratory protection.

EYE PROTECTION: None required for product use. For handling large quantities of material, safety glasses with side shields/goggles are recommended.

SKIN PROTECTION: Plastic or rubber gloves should be worn during product application and preparation. For handling large quantities of material, such as in product manufacturing, plastic or rubber gloves should also be considered for use.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Apron may be used for product handling. Tyvek clothing may also be suitable for handling large quantities of material.

WORK HYGIENIC PRACTICES: Ensure all work surfaces are clean. Metal instruments should not be used with this product or stored inside product containers.

Occupational Exposure Values:

OSHA PEL-TWA: None Established
ACGIH TLV-TWA: **Sodium Persulfate//Potassium Persulfate: 0.1 mg/m3**
OSHA PEL/ACGIH TLV STEL : None Established
OSHA PEL/ACGIH TLV CEILING: None Established

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Thick, grainy paste or free-flowing powder. May be white or colored and could have a possible ammonia odor or enhanced fragrance.

PHYSICAL STATE: Finely divided, free-flowing powder or thick, grainy paste (solid)

BOILING POINT: F: N/A **C:** N/A **FREEZING POINT: F:** N/A **C:** N/A

MELTING POINT: Decomposes

VAPOR PRESSURE (mmHg): @ F: N/A **C:** N/A **VAPOR DENSITY (AIR = 1): @ F:** N/A **C:** N/A

SPECIFIC GRAVITY (H2O = 1): >1 **SOLUBILITY IN WATER:** Approx 80% water soluble

EVAPORATION RATE: N/A

FLAMMABLE LIMITS IN AIR (% BY VOLUME): UPPER: N/A **LOWER:** N/A

FLASH POINT: F: N/A **C:** N/A **METHOD USED:** N/A

AUTOIGNITION TEMPERATURE: F: N/A **C:** N/A

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Material is stable at room temperature and under dry conditions. Heat and/or moisture may cause instability.

CONDITIONS TO AVOID (STABILITY): Heat, moisture, contamination with organic materials and metal utensils.

INCOMPATIBILITY (MATERIALS TO AVOID): Organic compounds (including flammable and combustible materials) and reducing agents.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Oxygen, chlorine, oxides of sulfur, sodium oxide and ammonia

HAZARDOUS POLYMERIZATION: Will not occur **CONDITIONS TO AVOID (POLYMERIZATION):** N/A

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SECTION 11: TOXICOLOGICAL INFORMATION

CARCINOGENICITY:
OSHA: Not recognized as carcinogenic **ACGIH**: Not recognized as carcinogenic
NTP: Not recognized as carcinogenic **IARC**: Not recognized as carcinogenic

ROUTES OF EXPOSURE: Inhalation, eyes, skin

POTENTIAL HEALTH EFFECTS:
EYES: Irritation
SKIN: Irritation, possible allergic dermatitis
INGESTION: Harmful if swallowed, slightly toxic
INHALATION: Irritation and possible sensitization (more common with powdered formulations)

ACUTE HEALTH HAZARDS: Possibility of eye/skin irritation. Possible allergic dermatitis.

CHRONIC HEALTH HAZARDS: Possible allergic dermatitis. Possible respiratory sensitization which is more common with the use of powdered hair bleaches.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Existing dermatological conditions (such as eczema) and respiratory conditions (such as bronchial asthma and/or bronchitis) may be exacerbated.

SECTION 12: ECOLOGICAL INFORMATION

The product itself has not been tested as a whole, but the following results have been associated with some of its constituents:

Potassium/Sodium Persulfate:

Bluegill sunfish, 96-hour LC50 = 771 mg/L
Rainbow Trout, 96-hour LC50 = 163 mg/L
Daphnia, 48-hour LC50 = 133 mg/L
Grass shrimp, 96 hour LC50 = 519 mg/L

CHEMICAL FATE: Biodegradability does not apply to inorganic substances.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Hair bleaching products are ignitable RCRA hazardous wastes when intended for disposal. Physical and/or chemical deactivation/degradation is the required method of treatment and disposal.

RCRA HAZARD CLASS: D001

Follow all local governmental requirements intended for disposal.

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SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation

- **In Consumer Packaging**: Fully Regulated (see reference to "other than consumer packaging" below)

- **OTHER THAN CONSUMER PACKAGING**:
  ID NUMBER: UN 3088
  PROPER SHIPPING NAME: Self-heating, solid, organic, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Sodium Persulfate)
  HAZARD CLASS: 4.2
  PACKING GROUP: III
  LABEL STATEMENTS: Spontaneously Combustible (see label on next page))

Transport Via Water

- **In Consumer Packaging**: Fully Regulated (see reference to "other than consumer packaging" below)

- **OTHER THAN CONSUMER PACKAGING**:
  ID NUMBER: UN 3088
  PROPER SHIPPING NAME: Self-heating solid, organic, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Sodium Persulfate)
  HAZARD CLASS: 4.2
  PACKING GROUP: III
  LABEL STATEMENTS: Spontaneously Combustible (see label on next page)

Transport Via Air

- **In Consumer Packaging**: Fully Regulated (see classification for "other than consumer packaging" below)

- **OTHER THAN CONSUMER PACKAGING**:
  ID NUMBER: UN 3088
  PROPER SHIPPING NAME: Self-heating solid, organic, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Sodium Persulfate)
  HAZARD CLASS: 4.2
  PACKING GROUP: III
  LABEL STATEMENTS: Spontaneously Combustible (see label on next page)

Please be aware of carrier transport variations before shipping hazardous materials

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LABELS FOR THIS PRODUCT WHEN *NOT* SHIPPING AS A CONSUMER COMMODITY

Label for fully regulated materials, Division 4.2:

SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes: Health: 1 Fire: 0 Reactivity: 1 Other:
Hazardous Materials Identification System: Class B Division 6 Flammable Reactive Material (solid)
Occupational Safety and Health Administration: Reactive, irritant, possible sensitizer, slightly toxic
US DOT/ICAO/IMDG: See section 14 above

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: This document represents an initial publication of this information.
Preparer name: Chandra L. Jennings

L'ORÉAL USA

SAFETY DATA SHEET

SDS # 09-053

ISSUANCE DATE: August 2, 2012

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L'Oreal USA Products, Inc.
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
800-535-5053 (International: 352-323-3500)

For further information:
732-499-2741

Product Name: Aqueous cosmetic liquids -- creams, gels and lotions containing <24% alcohol

Recommendations on use: Personal care product used as a topical skin application for moisturization, sun protection and/or cosmetic skin treatment.

Restrictions on use: Avoid fire, flame, heat and other sources of ignition. For external use only. Use only as directed. Keep out of reach of children. Liquid dispensed from the container may be considered flammable until dry.

SECTION 2: HAZARDS IDENTIFICATION

Signal Word: WARNING

Symbol	Classification	Hazard Statement	Prevention Statements
	Flammable Liquids – Category 3	Flammable liquid and vapor	• Keep away from heat, sparks, open flames and hot surfaces. Do not use while smoking. • Keep container tightly closed. • Ground/bond container and receiving equipment. • Use explosion-proof electrical, ventilating, lighting, manufacturing and packaging equipment. • Use only non-sparking tools. • Take precautionary measures against static discharge. • Wear plastic or rubber gloves. Eye protection appropriate for the manufacturing operation being performed should be used (goggles or face shield).
	Eye Irritation – Category 2A	Causes serious eye irritation	• Wash hands and face thoroughly after handling. • Wear eye protection/face protection; eye protection appropriate for the manufacturing operation being performed should be used (goggles or face shield).

Symbol	Classification	Hazard Statement	Prevention Statements
	Specific Target Organ Toxicity (Single Exposure) – Category 3	May cause drowsiness or dizziness	• Avoid breathing mist/vapors. • Use only in a well-ventilated area.

This material is considered hazardous by the US Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200)

General Precautionary Statements: Keep out of reach of children. Read label before use.

Hazards Not Otherwise Classified: Over-exposure may cause skin dryness or slight irritation.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Only hazardous constituents associated with the product are listed below

INGREDIENT:	CAS NO.	% WT
Ethyl Alcohol	64-17-5	2 – 23.5
Cyclopentasiloxane	541-02-6	<1 -- 23

SECTION 4: FIRST AID MEASURES

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 20 minutes or until material is sufficiently removed from the eye. **If eye irritation persists:** Get medical advice/attention if irritation or other symptoms occur.

IF ON SKIN OR HAIR: Rinse with plenty of water. **If skin irritation occurs:** Get medical attention. Remove all contaminated clothing and launder it before reuse.

IF INHALED: Remove victim to fresh air and keep in a rest position comfortable for breathing. Call a Poison Control Center if you feel unwell.

IF SWALLOWED: Do not induce vomiting. Never give anything by mouth to an unconscious individual. Consult a physician or Poison Control Center immediately.

SYMPTOMS/EFFECTS: Eye irritation upon contact. Possible skin dryness/irritation if over-exposed. Drowsiness or dizziness if over-exposed by inhalation.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Consult product labeling. No special advice.

SECTION 5: FIRE-FIGHTING MEASURES

Notes for Non-Emergency Personnel:

SUITABLE EXTINGUISHING MEDIA: In case of fire use carbon dioxide, dry chemical and/or foam for extinction. Water spray may be used to soak other materials surrounding the product, to prevent the spread of the fire. Selection of a fire extinguisher should also be appropriate to address the location of the fire and equipment involved. Review the tools available at your location to ensure proper availability of equipment.

Notes for those trained to participate in an emergency:

SPECIFIC FIRE AND EXPLOSION HAZARDS: Observe all appropriate precautions for handling flammable materials.

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS: Treat as flammable liquid. Follow National Fire Protection Association Guidelines or local guidelines for emergency response. Minimize all sources of static electricity.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide/carbon dioxide, nitrogen oxides.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Non-Emergency Personnel Precautions: Consult trained response personnel for clean-up of large spills or locations where providing control of the release is hazardous. Isolate the area and deny entry to unnecessary and unprotected personnel. Hazardous locations include areas where ignition sources can not be controlled. Sections 2, 5, 7 and 8 of this document should be consulted upon use of this material, to become knowledgeable of the material's hazards and how to control risks associated with handling flammable liquids.

If the location is not hazardous and only a small amount of material is spilled, control the spill using absorbent pads and protective equipment as noted below. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with Section 13 of this document.

PERSONAL PROTECTIVE EQUIPMENT: Plastic or rubber gloves, apron may be required for clean-up of large spills. Respiratory protection may need to be utilized, depending upon the size of the spill. Respiratory protection may include the use of organic vapor cartridges. Protective goggles or face shield is recommended for the control of liquid. Refer to Section 8 for additional information.

Trained Emergency Personnel Precautions: Eliminate all sources of ignition. Dike and contain the free liquid and absorb on vermiculite or spill pillows/pads. Place spent absorbents in UN specification drums for disposal. All precautions associated with controlling a flammable liquid should be employed during clean-up. Prohibit discharge to drains, soil, surface and ground waters. Non-sparking tools should be utilized in all clean-up associated with flammable liquids. Dispose in accordance with Section 13 of this document.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling: Employees should wear appropriate protective equipment in the manufacturing environment. Refer to Section 8 for protective equipment selection. Do not eat, drink or smoke while working with this material. All manufacturing should be performed indoors, in an enclosed environment free from uncontrolled ignition sources. Do not to handle in close proximity to incompatible materials. Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge.

Maintain a clean work environment, including proper housekeeping practices and structurally sound/compatible containers.

Incompatible Materials: Oxidizers, acids, bases.

Conditions for Safe Storage: Store in a tightly capped container away from sunlight, heat, sparks, and flame. Keep in a cool and well-ventilated area. Minimize inventory. It is suggested that this material be "locked up" or stored in an area where production inventory may be controlled by authorized personnel. Use only non-sparking tools. Take precautionary measures against static discharge. Appropriate fire suppression and detection equipment should be utilized. Store on spill pallets or other locations where spill containment will be easily accessible.

Keep away from open drains and protect from releases to the environment.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS: These criteria have been published by the referenced authority to establish exposure limits in the work environment. Employee work areas should be monitored to ensure that permissible limits are not exceeded during the work day. These references do not coincide with product use. These references are meant to be in association with the manufacturing environment.

OCCUPATIONAL EXPOSURE VALUES:

Component Name (CAS-No.)	Reference	TWA		STEL/CEILING	
		ppm	mg/m^3	ppm	mg/m^3
Ethyl Alcohol (64-17-5)	**OSHA PEL**	**1000**	**1900**	--	--
	ACGIH TLV	**--**	**--**	**1000**	**1880**
	NIOSH REL	**1000**	**1900**	--	--
Cyclopentasiloxane (541-02-6)	**OSHA PEL**	**--**	--	--	--
	ACGIH TLV	**--**	--	--	--
	NIOSH REL	--	--	--	--
	DOW CORNING	**10**	--	--	--

WORK HYGIENIC PRACTICES: Ensure all work surfaces are maintained, to prevent contamination.

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized. This ventilation should be compatible with the control of flammable materials. Exhaust ventilation should be utilized to maintain air concentrations of material below the occupational exposure guidelines noted above.

Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the manufacturing of product **--** Local Exhaust: Explosion proof. Mechanical (general): Explosion proof.

PERSONAL PROTECTIVE EQUIPMENT: Consistent with good hygiene practices, personal protective equipment (PPE) should be used in conjunction with other control measures including engineering controls, ventilation and isolation. See also Section 5 of this document for PPE advice, in the event of an emergency.

Eye/Face Protection (Non-Emergency): None required for product use. For handling of large quantities of liquid material, safety glasses with side shields/goggles are recommended.

Skin Protection (Non-Emergency): None required for product use. For handling large quantities of material, such as in product manufacturing, plastic or rubber gloves should be considered for use. Tyvek clothing may also be suitable for handling large quantities of material in the manufacturing environment.

Respiratory Protection (Non-Emergency): Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards. Organic vapor cartridges should be utilized with filtering respiratory protection.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Colored or clear slightly viscous liquid
ODOR:	Mild, pleasant fragrance
ODOR THRESHOLD:	Not Available
pH:	Not Available
MELTING/FREEZING POINT:	**F:** N/A **C:** N/A
BOILING POINT:	**F:** 173 (as ethanol) **C:** 78.3 (as ethanol)
FLASH POINT:	**F:** 80 – 140 **C:** 26 – 60 **METHOD USED:** Closed cup
EVAPORATION RATE:	> 1 **(Butyl acetate = 1)**
FLAMMABILITY:	Not Applicable to Liquids
FLAMMABLE LIMITS IN AIR:	ETHANOL: 19% UEL; 3.3% LEL
VAPOR PRESSURE (mmHg):	@ 70F: 44 (as ethanol) @ 21 C: 44 (as ethanol)
VAPOR DENSITY (AIR = 1):	@ 70F: >1 @ 21 C: > 1
RELATIVE DENSITY (H2O = 1):	Not Available
SOLUBILITY IN WATER:	Soluble in cold water
PARTITION COEFFICIENT:	Not Available
AUTOIGNITION TEMPERATURE:	Not Available
DECOMPOSITION TEMPERATURE:	Not Available
VISCOSITY:	Free-flowing liquid

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: Material is not considered reactive under typical handling and storage conditions.

STABILITY: Product is stable.

POSSIBILITY OF HAZARDOUS REACTIONS: None known. Hazardous polymerization is not expected to occur.

CONDITIONS TO AVOID: Heat, fire, flame and other sources of ignition.

INCOMPATIBILITY (MATERIAL TO AVOID): Oxidizers, acids, and bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide/carbon dioxide, nitrogen oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS:
SKIN CORROSION/IRRITATION: Overexposure may cause skin irritation or dryness
SERIOUS EYE DAMAGE/IRRITATION: Causes serious eye irritation
RESPIRATORY/SKIN SENSITIZATION: None expected
INGESTION: Harmful if swallowed
INHALATION: May cause drowsiness/dizziness

ROUTES OF EXPOSURE: Inhalation, eyes, skin, ingestion
SYMPTOMS: Symptoms may include unsteady gait, nausea, and dizziness. Skin redness, dryness or itchiness may occur with overexposure to the product. Watering, stinging or itching eyes may occur with direct contact.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None known.

ACUTE TOXICOLOGY DATA FOR COMPONENTS

Material	Route	Species	Test Results
Ethyl Alcohol	Oral LD_{50}	Rat	> 6,200 mg/kg
Ethyl Alcohol	Dermal LD_{Lo}	Rabbit	> 20,000 mg/kg
Ethyl Alcohol	LC_{50} (4 hr)	Rat	> 8000 mg/L
Cyclopentasiloxane	Oral LD_{50}	Rat	>5000 mg/kg bw
Cyclopentasiloxane	Dermal LD_{50}	Rabbit	>2000 mg/kg bw
Cyclopentasiloxane	LC_{50} (4 hr)	Rat	8.67 mg/L

Skin Corrosion/Irritation:
Ethyl Alcohol: Irritating to skin (Rabbit)
Cyclopentasiloxane: Not Irritating

Serious Eye Damage/Irritation:
Ethyl Alcohol: Highly Irritating (Draize test; Rabbit)
Cyclopentasiloxane: Not Irritating

Respiratory Irritation:
Ethyl Alcohol: 27,314 ppm (mouse) Highly Irritating
Cyclopentasiloxane: Not irritating

Skin Sensitization:
Ethyl Alcohol: Not sensitizing
Cyclopentasiloxane: Not irritating

CHRONIC HEALTH HAZARDS:

REPEAT DOSE TOXICITY:
NOAEL (Ethanol, oral): >2% (2400 mg/kg); Rat
LOAEL (Ethanol, oral): 3% (3600 mg/kg); Rat
NOAEL (Cyclopentasiloxane, oral): 100 mg/kg male rats
LOAEL (Cyclopentasiloxane, oral): 100 mg/kg bw/day female rats
NOAEL (Cyclopentasiloxane, inhalation): 0.081 mg/L (5ppm) male/female Wistar rats (whole-body inhalation)
LOAEL (Cyclopentasiloxane, inhalation): 160 ppm female rats (nose-only inhalation)
NOAEL (Cyclopentasiloxane, dermal): 1600 mg/kg bw male/female Sprague-Dawley rats

CARCINOGENICITY:

Component Name (CAS-No.)	OSHA	ACGIH	NTP	IARC
Ethyl Alcohol	--	**TLV-A3**	--	--
Cyclopentasiloxane	--	--	--	--

Notes:
ACGIH TLV-A3 - This reference indicates that the material is "Confirmed Animal Carcinogen with Unknown Relevance to Humans".

MUTAGENICITY:
Ethanol: Ethanol has been classified as mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May affect genetic material (mutagenic).

Cyclopentasiloxane: Cyclopentasiloxane has provided negative results in a variety of *in vitro* and *in vivo* tests.

REPRODUCTIVE TOXICITY:
Ethanol: Effects on the female reproductive system can include menstrual problems, altered sexual behavior, infertility, altered puberty onset, altered length of pregnancy, lactation problems, altered menopause onset and pregnancy outcome. Effects on the male reproductive system can include altered sexual behavior, altered fertility and problems with sperm shape or count.

Cyclopentasiloxane: In a two-generation reproductive toxicity study, reproductive performance was not affected at any concentration.

DEVELOPMENTAL TOXICITY/TERATOGENICITY:
Ethanol: Ethanol has been connected to adverse reproductive effects and birth defects (teratogenic), based on moderate to heavy consumption. Human: passes through the placenta, excreted in maternal milk. Repeated ingestion of ethanol by pregnant mothers has been shown to adversely affect the central nervous system of the fetus, producing a collection of effects which together constitute fetal alcohol syndrome. These include mental and physical retardation, disturbances of learning, motor and language deficiencies, behavioral disorders and small size head. Prenatal ethanol exposure affected fetal skeletal ossification at exposure levels lower than those required to affect fetal body weight and length, although the significance of these changes for long-term bone health is unknown.

Cyclopentasiloxane: No developmental toxicity observed (NOAEL: 160 ppm)

SECTION 12: ECOLOGICAL INFORMATION

Contact with the environment should be avoided. Spills and leaks should be immediately cleaned up and removed. All precautions should be taken to prevent contact with the environment. Published information regarding ingredients listed on this document area found below; where data is not listed, documentation was unavailable.

ACUTE AND PROLONGED TOXICITY TO FISH

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Ethanol	LC_{50}	12. 9 - 15.3g/L	Pimephales promelas	96 h
Cyclopentasiloxane	LC_{50} (OECD 204)	≥16 µg/L	Oncorhynchus mykiss	96 h

ACUTE TOXICITY TO AQUATIC INVERTEBRATES

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Ethanol	EC_{50}	5,012 mg/L	Ceriodaphnia Dubia	48 h
Cyclopentasiloxane	EC_{50} (OECD 202)	≥ 2.9 µg/L	Daphnia Magna	48 h

TOXICITY TO AQUATIC PLANTS

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Ethanol	EC_{50}	675 mg/L	Chlorella Vulgaris	4 days
Cyclopentasiloxane	EC_{50} (OECD 201)	≥ 12 µg/L	Pseudokirchnerella Subcapita	96 h

TOXICITY TO MICROORGANISMS

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Ethanol	EC_{50}	32.1 g/L	Photobacterium Phoshoreum	15 min
Cyclopentasiloxane	EC_{50}	≥ 2,000 mg/L	Activated Sludge	3 hr

PERSISTENCY AND DEGRADABILITY:

Ethyl Alcohol: Degradation of ethanol in water exceeded 60% within 10 days and thus is classified as readily biodegradable

Cyclopentasiloxane: Experimental and modeled biodegration data indicate that cyclopentasiloxane is not readily biodegradable in an aqueous environment

BIOACCUMULATIVE POTENTIAL:

Ethanol: Ethanol is not likely to bioaccumulate in aquatic organisms. Ethanol released into the environment is primarily distributed into air and water.

Cyclopentasiloxane: Cyclopentasiloxane has the potential to bioaccumulate. A study conducted according to an appropriate test protocol, and in compliance with GLP showed a steady-state BCF for fathead minnows of 7,060 mg/L.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: According to 40 CFR Section 261.21(a)(1), the characteristic of ignitability will not apply to an aqueous solution that contains less than 24 percent alcohol and which has a flash point less than 60 degrees Celsius. Products associated with this documentation have been previously assessed to ensure applicability of this rule. Follow all local governmental requirements intended for disposal.

RCRA HAZARD CLASS: EXEMPT (see above)

SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation

In accordance with US Department of Transportation 49 CFR 173.150(e), products associated with this document have been determined to contain at least 50% water and <24% alcohol by volume, therefore these materials are exempt from the US DOT Hazardous Materials Shipping Regulations.

- **IN CONSUMER PACKAGING:** EXEMPT
- **OTHER THAN CONSUMER PACKAGING :** EXEMPT

Transport Via Water

Products associated with this data sheet have been previously determined to be in accordance with the International Maritime Dangerous Goods Code Special Provision 144. Since the products associated with this document have been determined to be aqueous solutions containing <24% alcohol by volume, these materials are exempt from the IMDG Code.

- **IN CONSUMER PACKAGING:** EXEMPT
- **OTHER THAN CONSUMER PACKAGING:** EXEMPT

Transport Via Air (International)
Products associated with this data sheet have been previously determined to be in accordance with the International Air Transport Association Dangerous Goods Regulations Special Provision A58. Since the products associated with this document have been determined to be aqueous solutions containing <24% alcohol by volume, these materials are exempt from the IATA DGR.

- **IN CONSUMER PACKAGING:** EXEMPT
- **OTHER THAN CONSUMER PACKAGING:** EXEMPT

Please be aware of carrier transport variations before shipping hazardous materials.

SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes: Health: 2 Fire: 3 Reactivity: 0 Other: None

Workplace Hazardous Materials Identification System: Class B Flammable Material; Class D; Division 2, Subdivision B; Eye Irritation

This regulatory information represents the product, in its consumer packaging.

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: This document replaces the version dated August 5, 2009 and all previous versions of safety data sheets related to this product.

Author: Chandra L. Jennings

L'ORÉAL USA

SAFETY DATA SHEET

SDS # 09-055

ISSUANCE DATE: September 7, 2012

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L'Oreal USA Products, Inc.
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
800-535-5053 (International: 352-323-3500)

For further information:
732-499-2741

Product Name: Aqueous non-aerosol sprays and serums containing <24% alcohol

Recommendations on use: Personal care product used in the hair or on the skin.

Restrictions on use: Avoid fire, flame, heat and other sources of ignition. For external use only. Use only as directed. Keep out of reach of children. Liquid dispensed from the container may be considered flammable until dry.

SECTION 2: HAZARDS IDENTIFICATION

Signal Word: WARNING

Symbol	Classification	Hazard Statement	Prevention Statements
	Flammable Liquids – Category 3	Flammable liquid and vapor	• Keep away from heat, sparks, open flames and hot surfaces. Do not use while smoking. • Keep container tightly closed. • Ground/bond container and receiving equipment. • Use explosion-proof electrical, ventilating, lighting, manufacturing and packaging equipment. • Use only non-sparking tools. • Take precautionary measures against static discharge. • Wear plastic or rubber gloves. Eye protection appropriate for the manufacturing operation being performed should be used (goggles or face shield).
	Eye Irritation – Category 2A	Causes serious eye irritation	• Wash hands and face thoroughly after handling. • Wear eye protection/face protection; eye protection appropriate for the manufacturing operation being performed should be used (goggles or face shield).

Symbol	Classification	Hazard Statement	Prevention Statements
	Specific Target Organ Toxicity (Single Exposure) – Category 3	May cause drowsiness or dizziness	• Avoid breathing mist/vapors. • Use only in a well-ventilated area.

This material is considered hazardous by the US Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200)

General Precautionary Statements: Keep out of reach of children. Read label before use.

Hazards Not Otherwise Classified: Over-exposure may cause skin dryness or slight irritation.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Only hazardous constituents associated with the product are listed below

INGREDIENT:	CAS NO.	% WT
Ethyl Alcohol	64-17-5	2 – 12

SECTION 4: FIRST AID MEASURES

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 20 minutes or until material is sufficiently removed from the eye. **If eye irritation persists:** Get medical advice/attention if irritation or other symptoms occur.

IF ON SKIN OR HAIR: Rinse with plenty of water. **If skin irritation occurs:** Get medical attention. Remove all contaminated clothing and launder it before reuse.

IF INHALED: Remove victim to fresh air and keep in a rest position comfortable for breathing. Call a Poison Control Center if you feel unwell.

IF SWALLOWED: Do not induce vomiting. Never give anything by mouth to an unconscious individual. Consult a physician or Poison Control Center immediately.

SYMPTOMS/EFFECTS: Eye irritation upon contact. Possible skin dryness/irritation if over-exposed. Drowsiness or dizziness if over-exposed by inhalation.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Consult product labeling. No special advice.

SECTION 5: FIRE-FIGHTING MEASURES

Notes for Non-Emergency Personnel:

SUITABLE EXTINGUISHING MEDIA: In case of fire use carbon dioxide, dry chemical and/or foam for extinction. Water spray may be used to soak other materials surrounding the product, to prevent the spread of the fire. Selection of a fire extinguisher should also be appropriate to address the location of the fire and equipment involved. Review the tools available at your location to ensure proper availability of equipment.

Notes for those trained to participate in an emergency:

SPECIFIC FIRE AND EXPLOSION HAZARDS: Treat as flammable liquid. Follow National Fire Protection Association Guidelines or local guidelines for emergency response. Minimize all sources of static electricity.

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS: Observe all appropriate precautions for handling flammable materials.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide/carbon dioxide, nitrogen oxides.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Non-Emergency Personnel Precautions:

Consult trained response personnel for clean-up of large spills or locations where providing control of the release is hazardous. Isolate the area and deny entry to unnecessary and unprotected personnel. Hazardous locations include areas where ignition sources can not be controlled. It is vital that Sections 2, 5, 7 and 8 of this document should be consulted upon use of this material, to become knowledgeable of the material's hazards and how to control risks associated with handling flammable liquids.

If the location is not hazardous and only a small amount of material is spilled, control the spill using absorbent pads and protective equipment as noted below. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with Section 13 of this document.

PERSONAL PROTECTIVE EQUIPMENT: Plastic or rubber gloves, apron may be required for clean-up of large spills. Respiratory protection may need to be utilized, depending upon the size of the spill. Respiratory protection may include the use of organic vapor cartridges. Protective goggles or face shield is recommended for the control of liquid. Refer to Section 8 for additional information.

Notes for those trained to participate in an emergency:

Eliminate all sources of ignition. Dike and contain the free liquid and absorb on vermiculite or spill pillows/pads. Place spent absorbents in UN specification drums for disposal. All precautions associated with controlling a flammable liquid should be employed during clean-up. Prohibit discharge to drains, soil, surface and ground waters.

Recommendations for personal protective equipment selection are noted above. Non-sparking tools should be utilized in all clean-up associated with flammable liquids. Dispose in accordance with Section 13 of this document.

SECTION 7: HANDLING AND STORAGE

General notes on handling:

Employees should not eat, drink or smoke while working with flammable materials. Employees should be advised to wear appropriate protective equipment in the manufacturing environment. See section 8 of this document for protective equipment selection. All manufacturing should be performed indoors, in an enclosed environment free from uncontrolled ignition sources. Employees should be advised not to handle flammable products in close proximity to incompatible materials. Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge.

Storage precautions for unpackaged product (manufacturing environment): Store in a well-ventilated place. Keep cool. Minimize inventory. Keep container tightly closed. It is suggested that this material be "locked up" or stored in an area where production inventory may be controlled by authorized personnel. Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge. Appropriate fire

suppression and detection equipment should be utilized. Store on spill pallets or other locations where spill containment will be easily accessible.

Keep away from open drains and access to the environment.

General notes on storage:

Incompatible materials: Oxidizers, acids, bases. Store away from incompatible materials.

Maintain a clean work environment which includes use of properly functioning containers, proper housekeeping practices.

Storage precautions for packaged product – see consumer packaging.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS: These criteria have been published by the referenced authority to establish exposure limits in the work environment. Employee work areas should be monitored to ensure that permissible limits are not exceeded during the work day. These references do not coincide with product use. These references are meant to be in association with the manufacturing environment.

OCCUPATIONAL EXPOSURE VALUES:

Component Name (CAS-No.)	Reference	TWA		STEL/CEILING	
		ppm	mg/m^3	ppm	mg/m^3
Ethyl Alcohol (64-17-5)	OSHA PEL	1000	1900	--	--
	ACGIH TLV	--	--	1000	1880
	NIOSH REL	1000	1900	--	--

WORK HYGIENIC PRACTICES: Ensure all work surfaces are maintained, to prevent contamination.

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized. This ventilation should be compatible with the control of flammable materials. Exhaust ventilation should be utilized to maintain air concentrations of material below the occupational exposure guidelines noted above.

Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the manufacturing of product **--** Local Exhaust: Explosion proof. Mechanical (general): Explosion proof.

PERSONAL PROTECTIVE EQUIPMENT: Consistent with good hygiene practices, personal protective equipment (PPE) should be used in conjunction with other control measures including engineering controls, ventilation and isolation. See also Section 5 of this document for PPE advice, in the event of an emergency.

Eye/Face Protection (Non-Emergency): None required for product use. For handling of large quantities of liquid material, safety glasses with side shields/goggles are recommended.

Skin Protection (Non-Emergency): None required for product use. For handling large quantities of material, such as in product manufacturing, plastic or rubber gloves should be considered for use. Tyvek clothing may also be suitable for handling large quantities of material in the manufacturing environment.

Respiratory Protection (Non-Emergency): Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards. Organic vapor cartridges should be utilized with filtering respiratory protection.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR:	Colored or clear, water-thin liquid
ODOR:	Mild, pleasant fragrance
ODOR THRESHOLD:	Not Available
pH:	4.0-9.0
MELTING/FREEZING POINT:	**F:** N/A **C:** N/A
BOILING POINT:	**F:** 173 (as ethanol) **C:** 78.3 (as ethanol)
FLASH POINT:	**F:** 74 – 140 C**:** 23 – 60 C **METHOD USED:** Closed cup
EVAPORATION RATE:	> 1 **(Butyl acetate = 1)**
FLAMMABILITY:	Not Applicable to Liquids
FLAMMABLE LIMITS IN AIR:	ETHANOL: 19% UEL; 3.3% LEL
VAPOR PRESSURE (mmHg):	@ 70F: 44 (as ethanol) @ 21 C: 44 (as ethanol)
VAPOR DENSITY (AIR = 1):	@ 70F: >1 @ 21 C: > 1
RELATIVE DENSITY (H2O = 1):	Not Available
SOLUBILITY IN WATER:	Soluble in cold water
PARTITION COEFFICIENT:	Not Available
AUTOIGNITION TEMPERATURE:	Not Available
DECOMPOSITION TEMPERATURE:	Not Available
VISCOSITY:	Free-flowing liquid

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: Material is not considered reactive under typical handling and storage conditions.

STABILITY: Product is stable.

POSSIBILITY OF HAZARDOUS REACTIONS: None known. Hazardous polymerization is not expected to occur.

CONDITIONS TO AVOID: Heat, fire, flame and other sources of ignition.

INCOMPATIBILITY (MATERIAL TO AVOID): Oxidizers, acids, and bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide/carbon dioxide, nitrogen oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS:
SKIN CORROSION/IRRITATION: Overexposure may cause skin irritation or dryness
SERIOUS EYE DAMAGE/IRRITATION: Causes serious eye irritation
RESPIRATORY/SKIN SENSITIZATION: None expected
INGESTION: Harmful if swallowed
INHALATION: May cause drowsiness/dizziness

ROUTES OF EXPOSURE: Inhalation, eyes, skin, ingestion
SYMPTOMS: Symptoms may include unsteady gait, nausea, and dizziness. Skin redness, dryness or itchiness may occur with overexposure to the product. Watering, stinging or itching eyes may occur with direct contact.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None known.

ACUTE TOXICOLOGY DATA FOR COMPONENTS

Material	Route	Species	Test Results
Ethyl Alcohol	Oral LD_{50}	Rat	> 16,200 mg/kg
Ethyl Alcohol	Dermal LD_{50}	Rabbit	> 20,000 mg/kg
Ethyl Alcohol	LC_{50} (4 hr)	Rat	> 8000 mg/L

Skin Corrosion/Irritation:
Ethyl Alcohol: Irritating to skin (Rabbit)

Serious Eye Damage/Irritation:
Ethyl Alcohol: Highly Irritating (Draize test; Rabbit)

Respiratory Irritation:
Ethyl Alcohol: 27,314 ppm (mouse) Highly Irritating

Skin Sensitization:
Ethyl Alcohol: Not sensitizing

CHRONIC HEALTH HAZARDS:

REPEAT DOSE TOXICITY:
NOAEL (Ethanol, oral): >2% (2400 mg/kg); Rat
LOAEL (Ethanol, oral): 3% (3600 mg/kg); Rat

CARCINOGENICITY:

Component Name (CAS-No.)	OSHA	ACGIH	NTP	IARC
Ethyl Alcohol	--	TLV-A3	--	--

Notes:
ACGIH TLV-A3 - This reference indicates that the material is "Confirmed Animal Carcinogen with Unknown Relevance to Humans".

MUTAGENICITY:
Ethanol: Ethanol has been classified as mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May affect genetic material (mutagenic).

REPRODUCTIVE TOXICITY:
Ethanol: Effects on the female reproductive system can include menstrual problems, altered sexual behavior, infertility, altered puberty onset, altered length of pregnancy, lactation problems, altered menopause onset and pregnancy outcome. Effects on the male reproductive system can include altered sexual behavior, altered fertility and problems with sperm shape or count.

DEVELOPMENTAL TOXICITY/TERATOGENICITY:
Ethanol: Ethanol has been connected to adverse reproductive effects and birth defects (teratogenic), based on moderate to heavy consumption. Human: passes through the placenta, excreted in maternal milk. Repeated ingestion of ethanol by pregnant mothers has been shown to adversely affect the central nervous system of the fetus, producing a collection of effects which together constitute fetal alcohol syndrome. These include mental and physical retardation, disturbances of learning, motor and language deficiencies, behavioral disorders and small size head. Prenatal ethanol exposure affected fetal skeletal ossification at exposure levels lower than those required to affect fetal body weight and length, although the significance of these changes for long-term bone health is unknown.

SECTION 12: ECOLOGICAL INFORMATION

Contact with the environment should be avoided. Spills and leaks should be immediately cleaned up and removed. All precautions should be taken to prevent contact with the environment. Published information regarding ingredients listed on this document area found below; where data is not listed, documentation was unavailable.

ACUTE AND PROLONGED TOXICITY TO FISH

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Ethanol	LC_{50}	12. 9 - 15.3g/L	Pimephales promelas	96 h

ACUTE TOXICITY TO AQUATIC INVERTEBRATES

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Ethanol	EC_{50}	5,012 mg/L	Ceriodaphnia Dubia	48 h

TOXICITY TO AQUATIC PLANTS

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Ethanol	EC_{50}	675 mg/L	Chlorella Vulgaris	4 days

TOXICITY TO MICROORGANISMS

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Ethanol	EC_{50}	32.1 g/L	Photobacterium Phoshoreum	15 min

PERSISTENCY AND DEGRADABILITY:

Ethyl Alcohol: Degradation of ethanol in water exceeded 60% within 10 days and thus is classified as readily biodegradable

BIOACCUMULATIVE POTENTIAL:

Ethanol: Ethanol is not likely to bioaccumulate in aquatic organisms. Ethanol released into the environment is primarily distributed into air and water.

SECTION 13: DISPOSAL CONSIDERATIONS

Those responsible for the performance of disposal, recycling or reclamation activities should refer to Section 8 of this document for advice on personal protective equipment and exposure controls.

WASTE DISPOSAL METHOD: According to 40 CFR Section 261.21(a)(1), the characteristic of ignitability will not apply to an aqueous solution that contains less than 24 percent alcohol and which has a flash point less than 60 degrees Celsius. Products associated with this documentation have been previously assessed to ensure applicability of this rule. Follow all local governmental requirements intended for disposal.

RCRA HAZARD CLASS: EXEMPT (see above)

SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation
In accordance with US Department of Transportation 49 CFR 173.150(e), products associated with this document have been determined to contain at least 50% water and <24% alcohol by volume, therefore these materials are exempt from the US DOT Hazardous Materials Shipping Regulations.

- **IN CONSUMER PACKAGING:** EXEMPT
- **OTHER THAN CONSUMER PACKAGING :** EXEMPT

Transport Via Water
Products associated with this data sheet have been previously determined to be in accordance with the International Maritime Dangerous Goods Code Special Provision 144. Since the products associated with this document have been determined to be aqueous solutions containing <24% alcohol by volume, these materials are exempt from the IMDG Code.

- **IN CONSUMER PACKAGING:** EXEMPT
- **OTHER THAN CONSUMER PACKAGING:** EXEMPT

Transport Via Air (International)
Products associated with this data sheet have been previously determined to be in accordance with the International Air Transport Association Dangerous Goods Regulations Special Provision A58. Since the products associated with this document have been determined to be aqueous solutions containing <24% alcohol by volume, these materials are exempt from the IATA DGR.

- **IN CONSUMER PACKAGING:** EXEMPT
- **OTHER THAN CONSUMER PACKAGING:** EXEMPT

Please be aware of carrier transport variations before shipping hazardous materials.

SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes: Health: 2 Fire: 3 Reactivity: 0 Other: None

Workplace Hazardous Materials Identification System: Class B Flammable Material; Class D; Division 2, Subdivision B; Eye Irritation

This regulatory information represents the product, in its consumer packaging.

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: This document replaces the version dated August 5, 2009 and all previous versions of safety data sheets related to this product.

Author: Chandra L. Jennings

L'ORÉAL USA

MATERIAL SAFETY DATA SHEET

MSDS # 11-071

MSDS DATE: July 28, 2011

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L'Oreal USA Products, Inc.
111 Terminal Avenue
Clark, NJ 07066

Emergency Telephone Number
800-535-5053 (International: 352-323-3500)

For further information:
732-499-2741

Product Name: Self-heating Hair Bleach Paste/Fully Regulated for Hazmat Transport

Recommendations on use: For lightening of hair color.

Restrictions on use: Do not use metal utensils with this product. For external use only. Use only as directed Refer to product insert or container for additional use warnings.

SECTION 2: HAZARDS IDENTIFICATION

Physical Hazard Signal Word: Danger **Health Hazard Signal Word: Warning**

Hazard statements: Self-Heating; may catch fire. Causes eye irritation. May cause an allergic skin reaction.

Regulatory Classification: **OSHA** Reactive substance, Eye irritant, Possible skin sensitizer; **DOT** 4.2 Spontaneously Combustible Solid; **WHMIS** Class B Division 6 Flammable Reactive Material (solid)

Precautionary statements:

General statements: Keep out of reach of children. Read label before use.

Prevention Statements for Self-heating Substances:
Keep cool. Protect from sunlight. Wear protective plastic gloves, such as nitrile, for all product handling. Safety glasses, goggles or faceshield should be worn for protection during the manufacture of this product. Selection of face/eye protection should be coordinated with manufacturing activities. This product is a self-heating solid which can lead to spontaneous combustion. Keep from heat and moisture. Do not use metal utensils.

Prevention statements for eye irritants (hazard category 2B) and skin sensitization: Wash hands thoroughly after handling. Do not eat, drink or smoke while using this product. Avoid breathing paste material. Contaminated work clothing should not be allowed out of the workplace. Wear protective plastic gloves, such as nitrile, during open handling.

Other hazards which will not result in classification: May have irritating properties to respiratory system. May have the potential to cause respiratory sensitization. **Respiratory sensitization is more common when using powered forms of hair bleach products. This document is written to reference paste products.**

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SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT:	CAS NO.	% WT
Potassium Persulfate	7727-21-1	≤31
Ammonium Persulfate	7727-54-0	≤16
Sodium Silicate	1344-09-8	≤16
Sodium Metasilicate	6834-92-0	≤6

SECTION 4: FIRST AID MEASURES

Response Precautionary Statements:

IF IN EYES: Rinse copiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 20 minutes or until material is sufficiently removed from the eye. If eye irritation persists: Get medical advice/attention if irritation or other symptoms occur.

IF ON SKIN OR HAIR: Remove immediately all contaminated clothing. Rinse skin with water in an appropriate emergency shower. Wash with plenty of soap and water. If irritation or rash occurs: get medical advice/attention.

IF SWALLOWED: Do not induce vomiting. Consult a physician immediately.

IF INHALED: Move to fresh air. If irritation symptoms appear or there is difficulty in breathing, get medical attention immediately.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Consult product labeling. No special advice.

SYMPTOMS/EFFECTS: May cause eye irritation upon contact, possible respiratory system/skin irritation if over-exposed (manufacturing environment). May have the potential to cause skin/respiratory sensitization resulting in an allergic reaction.

Wash contaminated clothing before re-use.

SECTION 5: FIRE-FIGHTING MEASURES

Notes for Non-Emergency Personnel:

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, foam and/or water spray. Selection of a fire extinguisher should also be appropriate to address the location of the fire and equipment involved. Please review the tools available at your location to ensure proper availability of equipment.

Notes for those trained to participate in an emergency:

SPECIAL FIRE FIGHTING PROCEDURES: Upon decomposition, persulfates yield oxygen and may thereby stimulate combustion of flammable and combustible materials. Extinguish fires with media appropriate for the burning material.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Product contains oxidizing materials, but is not an oxidizing material itself. 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. May cause release of oxygen and oxides of sulfur which support combustion. Decomposition could form a high temperature melt. See section ten of this document (Stability and Reactivity).

HAZARDOUS DECOMPOSITION PRODUCTS: Oxygen, chlorine, oxides of sulfur, sodium oxide and ammonia

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SECTION 6: ACCIDENTAL RELEASE MEASURES

Notes for non-emergency personnel:

Consult trained response personnel for clean-up of large spills or locations where providing preliminary control of the chemical release is hazardous. Hazardous locations include areas where ignition sources can not be controlled. It is vital that sections 2, 5, 7 and 8 of this document be consulted before an accident occurs, to control any risks in handling self-heating materials.

If the location is not hazardous and only a small amount of material is spilled, control the spill using absorbent pads or towels and protective equipment as noted below. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with section 13 of this document. Metal utensils should not be utilized in spill clean-up. Care should be taken to isolate the material from moisture during clean-up.

PERSONAL PROTECTIVE EQUIPMENT: Plastic or rubber gloves, apron may be required for clean-up of large spills. Respiratory protection may need to be utilized, depending upon the size of the spill. Protective goggles or face shield is recommended for the control of paste materials.

Notes for those trained to participate in an emergency:

ACCIDENTAL RELEASE MEASURES: Should a release of material occur, eliminate all sources of ignition. Isolate and contain the material with pads. Clean up the material with dry pads or paper towels. Place spent absorbent in UN specification drums for disposal. All precautions associated with controlling a self-heating substance should be employed during clean-up. Prohibit discharge to drains, soil, surface and ground waters. During clean-up, do not contaminate product with organic material. Keep drummed waste cool and dry pending disposal.

Recommendations for personal protective equipment selection are noted above. Non-sparking tools should be utilized in all clean-up. Metal utensils should not be utilized for spill clean up. Dispose in accordance with section 13 of this document.

SECTION 7: HANDLING AND STORAGE

Storage precautionary statements for self-reactive materials: Maintain air gap between stacks and pallets of stored material. These materials should be stored at temperatures less than 100 F. Store away from fuels, solvents, organic materials and reducing agents. Keep segregated and store away from other materials. Avoid heat and moisture. Use only with adequate ventilation and avoid inhalation.

Avoid contact with eyes and skin (other than areas of application). Do not inhale or ingest. Prepare and use in a well-ventilated area.

Keep away from open drains and access to the environment. Refer to product insert or container for additional use warnings.

General notes on storage:

Incompatible materials: Fuels, solvents, organic materials and reducing agents. Keep material segregated.

General notes on handling:

Employees should not eat, drink or smoke while working with hazardous materials. Employees should be advised to wear appropriate protective equipment in the manufacturing environment. See section 8 of this document for protective equipment selection. All manufacturing should be performed indoors, in an enclosed environment free from uncontrolled heat sources. Employees should be advised not to handle self-heating products in close proximity to incompatible materials.

Maintain a clean work environment which includes the use of properly functioning containers, proper housekeeping practices.

Please refer to section 8 of this document for recommended equipment to be used in a manufacturing environment.

OTHER PRECAUTIONS: 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.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized.

VENTILATION: Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the manufacturing of product **--** Local Exhaust: Explosion proof. Mechanical (general): Explosion proof.

RESPIRATORY PROTECTION: Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards. Particulate filtering cartridges may be utilized with air-purifying respiratory protection. Ammonia cartridges may also be useful.

EYE PROTECTION: None required for product use. For handling large quantities of material, safety glasses with side shields/goggles are recommended.

SKIN PROTECTION: Plastic or rubber gloves should be worn during product application and preparation. For handling large quantities of material, such as in product manufacturing, plastic or rubber gloves should also be considered for use.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Apron may be used for product handling. Tyvek clothing may also be suitable for handling large quantities of material.

WORK HYGIENIC PRACTICES: Ensure all work surfaces are clean. Metal instruments should not be used with this product or stored inside product containers.

Occupational Exposure Values:

OSHA PEL-TWA:	None Established
ACGIH TLV-TWA:	**Potassium Persulfate/Ammonium Persulfate (as S_2O_8): 0.1 mg/m3**
OSHA PEL/ACGIH TLV STEL :	None Established
OSHA PEL/ACGIH TLV CEILING:	None Established

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Thick, grainy paste. May be white or colored.

ODOR: Could have a possible ammonia odor or enhanced fragrance.

ODOR THRESHOLD: Not established.

pH: Not applicable

FREEZING POINT: F: N/A **C:** N/A

MELTING POINT: Decomposes

BOILING POINT: F: N/A **C:** N/A

FLASH POINT: F: N/A **C:** N/A **METHOD USED:** N/A

EVAPORATION RATE: N/A

FLAMMABILITY: SOLID MATERIAL. NON-FLAMMABLE. SELF-HEATING.

FLAMMABLE LIMITS IN AIR (% BY VOLUME): UPPER: N/A **LOWER:** N/A

VAPOR PRESSURE (mmHg): @ **F:** N/A **C:** N/A

VAPOR DENSITY (AIR = 1): @ **F:** N/A **C:** N/A

RELATIVE DENSITY/SPECIFIC GRAVITY (H2O = 1): >1

SOLUBILITY IN WATER: Approx 80% water soluble

PARTITIION COEFFICIENT: n-octanol/water: Not available

AUTOIGNITION TEMPERATURE: **F:** N/A **C:** N/A

DECOMPOSITION TEMPERATURE: Not available

VISCOSITY: Thick solid. Measurement not available.

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: This material may react to heat, metal and moisture.

STABILITY: Material is stable at room temperature and under dry conditions. Heat and/or moisture may cause instability.

POSSIBILITY OF HAZARDOUS REACTIONS: Reaction with heat, metal and moisture are possible for both the finished product and manufactured, unpackaged product. Hazardous polymerization is not expected to occur.

CONDITIONS TO AVOID: Heat, moisture, contamination with organic materials and metal utensils.

INCOMPATIBILITY (MATERIAL TO AVOID): Organic compounds (including flammable and combustible materials) and reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxygen, chlorine, oxides of sulfur, sodium oxide and ammonia

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS:
SKIN CORROSION/IRRITATION: Irritation, possible allergic dermatitis
SERIOUS EYE DAMAGE OR IRRITATION: Irritation may be associated with this product, if direct contact occurs
RESPIRATORY OR SKIN SENSITIZATION: Respiratory sensitization has been associated with loosely powdered forms of hair bleach – this product is a thick paste.
INGESTION: Harmful if swallowed, slightly toxic
INHALATION: Irritation and possible sensitization (more common with powdered formulations)

CARCINOGENICITY:
OSHA: Not recognized as carcinogenic **ACGIH**: Not recognized as carcinogenic
NTP: Not recognized as carcinogenic **IARC**: Not recognized as carcinogenic

ROUTES OF EXPOSURE: Inhalation, eyes, skin

CHRONIC HEALTH HAZARDS: Possible allergic dermatitis. Possible respiratory sensitization which is more common with the use of powdered hair bleaches.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Existing dermatological conditions (such as eczema) and respiratory conditions (such as bronchial asthma and/or bronchitis) may be exacerbated.

INGREDIENT NAME	TEST	SPECIES	DOSE
Ammonium Persulfate	LD_{50} (Dermal)	Rat	>2,000 mg/kg
Ammonium Persulfate	LD_{50} (Oral)	Rat	495 mg/kg
Ammonium Persulfate	LC_{50} (Inhalation)	Rat	2.95 mg/l; 4 hr
Potassium Persulfate	LD_{50} (Oral)	Rat	1,130 mg/kg
Potassium Persulfate	LD_{50} (Dermal)	Rabbit	>10 g/kg
Potassium Persulfate	LC_{50} (Inhalation)	Rat	>42.9 mg/l AEROSOL

SECTION 12: ECOLOGICAL INFORMATION

Contact with the environment should be avoided. Spills and leaks should be immediately cleaned up and removed. All precautions should be taken to prevent contact with the environment.

The product itself has not been tested as a whole, but the following results have been associated with some of its constituents:

ACUTE AND PROLONGED TOXICITY TO FISH

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Ammonium Persulfate	LC_{50} (OECD TG 203)	323 mg/l	Poecillia reticulata	96 h
Potassium Persulfate	LC_{50} (FMC Study I92-1250)	771 mg/l	Bluegill Sunfish	96 h

ACUTE TOXICITY TO AQAUTIC INVERTEBRATES

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Ammonium Persulfate	EC_{50} (OECD Guideline 202)	357 mg/l	Daphnia Magna	48 h
Potassium Persulfate	EC_{50} (FMC Study I92-1251)	133 mg/l	Daphnia Magna	48 h

CHEMICAL FATE: Biodegradability does not apply to inorganic substances.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Hair bleaching products are ignitable RCRA hazardous wastes when intended for disposal. Physical and/or chemical deactivation/degradation is the required method of treatment and disposal. Commonly, incineration is utilized as a management method.

RCRA HAZARD CLASS: D001

Follow all local governmental requirements intended for disposal.

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SECTION 14: TRANSPORT INFORMATION

North American Ground Transportation

- **In Consumer Packaging:**
  ID NUMBER: UN 3088
  PROPER SHIPPING NAME: Self-heating, solid, organic, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Ammonium Persulfate)
  HAZARD CLASS: 4.2
  PACKING GROUP: II
  LABEL STATEMENTS: Spontaneously Combustible (see label on next page)

- **Other Than Consumer Packaging:**
  ID NUMBER: UN 3088
  PROPER SHIPPING NAME: Self-heating, solid, organic, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Ammonium Persulfate)
  HAZARD CLASS: 4.2
  PACKING GROUP: II
  LABEL STATEMENTS: Spontaneously Combustible (see label on next page)

Transport Via Water

- **In Consumer Packaging:**
  ID NUMBER: UN 3088
  PROPER SHIPPING NAME: Self-heating, solid, organic, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Ammonium Persulfate)
  HAZARD CLASS: 4.2
  PACKING GROUP: II
  LABEL STATEMENTS: Spontaneously Combustible (see label on next page)

- **Other Than Consumer Packaging:**
  ID NUMBER: UN 3088
  PROPER SHIPPING NAME: Self-heating solid, organic, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Ammonium Persulfate)
  HAZARD CLASS: 4.2
  PACKING GROUP: II
  LABEL STATEMENTS: Spontaneously Combustible (see label on next page)

L'ORÉAL USA

Transport Via Air

- **In Consumer Packaging:**
  ID NUMBER: UN 3088
  PROPER SHIPPING NAME: Self-heating, solid, organic, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Ammonium Persulfate)
  HAZARD CLASS: 4.2
  PACKING GROUP: II
  LABEL STATEMENTS: Spontaneously Combustible

- **OTHER THAN CONSUMER PACKAGING (>450L):**
  ID NUMBER: UN 3088
  PROPER SHIPPING NAME: Self-heating solid, organic, n.o.s.
  TECHNICAL NAME: (Potassium Persulfate, Ammonium Persulfate)
  HAZARD CLASS: 4.2
  PACKING GROUP: II
  LABEL STATEMENTS: Spontaneously Combustible

Please be aware of carrier transport variations before shipping hazardous materials

LABELS FOR THIS PRODUCT

Label for fully regulated materials, Division 4.2:

SECTION 15: REGULATORY INFORMATION

National Fire Protection Association Codes: Health: 2 Fire: 0 Reactivity: 1 Other:
Workplace Hazardous Materials Identification System: Class B Division 6 Flammable Reactive Material (solid)
Occupational Safety and Health Administration: Reactive, Irritant, Possible Sensitizer
US DOT/ICAO/IMDG: See section 14 above

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: This document represents an initial publication of this information.
Preparer name: Chandra L. Jennings

Material Safety Data Sheet

Products associated with this document are exempt from OSHA's Hazard Communication Standard 29 CFR 1910.1200, due to low presence or no presence of hazardous materials. Standard must be consulted for specific requirements and reporting thresholds.

U.S. Department of Labor

Occupation Safety and Health Administration
(Non-Mandatory Form)
Form Approved

OMB No. 1218-0072

Non-Haz

IDENTITY	*Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.*
L'Oreal Non-Hazardous hair styling, cosmetic and/or skin care products	

Section I

Manufacturer's Name	Emergency Telephone Number
L'Oreal USA Products, Inc.	(800) 535-5053 (Int'l 352-323-3500)
Address (Number, Street, City, State, and ZIP Code)	**Telephone Number For Information**
111 Terminal Avenue	(732) 499-2745
	Date Prepared
Clark, NJ 07066	May 10, 2005
	Signature of Preparer (optional)
	CLJ/GCD

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity;Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Not applicable				

Section III - Physical/Chemical Characteristics

Boiling Point		Specific Gravity (H2O = 1)	
(Liquids)	varies		>1
Vapor Pressure (mm Hg)		**Melting Point**	
N/A		(Solids)	varies
Vapor Density (AIR = 1)		**Evaporation Rate**	
>1		(Butyl Acetate = 1)	<1

Solubility in Water

Generally soluble or miscible

Appearance and Odor

May have a mild to moderate fragrance

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
>200°F	Not applicable	N/A	N/A

Extinguishing Media

Carbon dioxide, dry chemical, foam, and/or water spray.

Special Fire Fighting Procedures

Fires involving bulk product may be extinguished with carbon dioxide, dry chemical, and/or foam. Water spray may be used to soak corrugated shipping containers of finished product if involved in a fire.

Unusual Fire and Explosion Hazards

None; however, observe usual precautions for handling of combustible materials. For manufacturing, minimize airborne vapor levels through engineering controls.

Section V - Reactivity Data

Non-Haz

Stability	Unstable		Conditions to Avoid	Avoid heat, fire, and other sources of ignition.
	Stable	X		

Incompatibility (Materials to Avoid)

Oxidizing agents and nitric acid.

Hazardous Decomposition or Byproducts

Silicon dioxide, carbon monoxide, carbon dioxide.

Hazardous Polymerization	May Occur		Conditions to Avoid	None known.
	Will Not Occur	X		

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	Yes	Yes	Yes

Health Hazards (Acute and Chronic)

No health hazards anticipated.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	No	No	No

Signs and Symptoms of Exposure

No health hazards anticipated.

Medical Conditions Generally Aggravated by Exposure

None known.

Emergency and First Aid Procedure

If in eyes, flush with plenty of water for at least 15 minutes. Get medical attention if irritation occurs. If swallowed, drink one or two glasses of water or milk and consult a physician. If on skin, wash with soap and water.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled

Eliminate all sources of ignition. Dike and contain the free liquid, if any, and absorb on vermiculite, spill pillows, or other absorbants. Containerize spent absorbants in suitable containers for disposal. Wash spill area with detergent solution as necessary.

Waste Disposal Method

Non-hazardous products are not regulated as hazardous wastes when intended for disposal. However, incineration is the recommended method of treatment and disposal for such products.

Precautions to be Taken in Handling and Storage

Store bulk quantities in a cool, well-ventilated room. Limit quantities on hand to the extent possible. Store away from possible sources of ignition. Observe usual precautions relative to static electricity. Avoid oxidizing agents and nitric acid.

Other Precautions

For external use only. Use only as directed.

Section VIII - Control Measures

For routine manufacturing/filling operations, none generally required. For spills, wear an approved self-contained breathing apparatus.

Ventilation	Local Exhaust	Explosion-Proof	Special
	Mechanical(General)	Explosion-Proof	Other

Protective Gloves

Rubber or plastic gloves for bulk quantities.

Other Protective Clothing or Equipment

Safety glasses and protective clothing for bulk quantities.

Work/Hygienic Practices

OSHA hazard classification: Non-Hazardous

DOT classification: Bulk - Not regulated
Finished Product - Not regulated.