L'ORÉAL USA

SAFETY DATA SHEET

SDS #00-11-150-1

ISSUANCE DATE: November 27, 2017

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

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

L'Oreal Canada
4895 rue Hickmore
Ville St-Laurent, H4T 1K5
Canada

Emergency Telephone Number:
1-800-535-5053 (International: 352-323-3500)
In Canada – 1-613-996-6666 (Canutec) (*666 cellular)

For further information:
1-732-499-2741

Poison Control Number: 412-390-3326

Product Name: Redken Scalp Relief Anti-Dandruff Shampoo

Recommendations on use: Personal care product used on the hair for cosmetic effect.

Restrictions on use: For external use only. Use only as directed. Avoid direct contact with eyes.

SECTION 2: HAZARDS IDENTIFICATION

Signal Word: DANGER

Symbol	Classification	Hazard Statement	Prevention Statements
	Eye Damage Category 1	Causes serious eye damage	• Wear eye protection appropriate for the manufacturing operation being performed (goggles or face shield).
No symbol required	Skin Irritation Category 2	Cause skin irritation	• Wash hands thoroughly after handling. • Wear nitrile or vinyl protective gloves.

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: None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Only hazardous constituents associated with the product are listed below

INGREDIENT:	CAS NO.	% WT
Sodium Laureth Sulfate	3088-31-1	≤ 11.1%
Sodium Lauryl Sulfate	85586-07-8	≤ 4.0%
Glycerin	56-81-5	≤ 2.0%
Cocamide MEA	68140-00-1	≤ 1.8%
Zinc Pyrithione	13463-41-7	≤ 1.0%
Hexylene Glycol	107-41-5	≤ 1.0%

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 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 advice/attention. Take off contaminated clothing and wash it before reuse.

IF INHALED: Remove victim to fresh air and keep 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: Causes serious eye damage. Causes skin irritation.

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

SECTION 5: FIRE-FIGHTING MEASURES

Notes for Non-Emergency Personnel:

EXTINGUISHING MEDIA: In case of fire: Use carbon dioxide, dry chemical, foam and/or water spray to extinguish. 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: Follow National Fire Protection Association Guidelines or local guidelines appropriate for emergency response.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None required.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal degradation may produce oxides of carbon, hydrocarbons, and/or derivatives.

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 cannot be controlled. 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 while wearing the protective equipment as noted below. Clean the area with detergent and water. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with Section 13 of this document.

PERSONAL PROTECTIVE EQUIPMENT: Nitrile or vinyl 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 be used depending upon the size of the spill and occupational exposure limits. Respiratory protection may include the use of organic vapor cartridges. Refer to Section 8 for additional information.

Notes for those trained to participate in an emergency:

ACCIDENTAL RELEASE MEASURES: Dike and contain the free liquid and absorb on vermiculite or spill pillows/pads. Solidified materials should be placed in sturdy containers for disposal. Place spill residual in appropriate containers for disposal. Wash area completely with water. Avoid contact with wet surfaces or walkways that may become slick when residue is present. Prohibit discharge to drains, soil, surface and ground waters.

Recommendations for personal protective equipment selection are noted above. 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 chemical 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.

Maintain a clean work environment which includes use of properly functioning containers, proper housekeeping practices.

CONDITIONS FOR SAFE STORAGE:

Storage precautions for unpackaged product (manufacturing environment): Store in a well-ventilated place and keep cool. Keep containers closed when not in use. Store where releases can easily be contained.

Storage precautions for packaged product: See consumer packaging.

Keep away from open drains and access to the environment.

Incompatible materials: None known.

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
Zinc Pyrithione (13463-41-7)	OSHA PEL	--	--	--	--
	ACGIH TLV	--	--	--	--
	NIOSH REL	--	--	--	--
	ARCH ROEG	--	0.35	--	--
Glycerin (mist) 56-81-5	OSHA PEL	--	15*/5**	--	--
	ACGIH TLV	--	--	--	--
	NIOSH REL	--	--	--	--
Hexylene Glycol (1309-37-1)	OSHA PEL	--	--	--	--
	ACGIH TLV	--	--	25 (C)	121 (C)
	NIOSH REL	--	--	25 (C)	125 (C)

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. 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, nitrile or vinyl 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: Viscous Liquid – White

ODOR: Characteristic

ODOR THRESHOLD: Not Available

pH: 5.0 – 5.6

MELTING/FREEZING POINT: **F:** Not Available **C:** Not Available

BOILING POINT: **F:** > 212 **C:** > 100

FLASH POINT: **F:** > 212 **C:** > 100 **METHOD USED:** Closed cup

EVAPORATION RATE:	Not Available **(Butyl acetate = 1)**
FLAMMABILITY:	Not Applicable to Liquids
FLAMMABLE LIMITS IN AIR:	Not Applicable
VAPOR PRESSURE (mmHg):	@ F: Not Available @ C: Not Available
VAPOR DENSITY (AIR = 1):	@ F: Not Available @ C: Not Available
RELATIVE DENSITY (H2O = 1):	Not Available
SOLUBILITY IN WATER:	Not Available
PARTITION COEFFICIENT:	Not Available
AUTOIGNITION TEMPERATURE:	Not Available
DECOMPOSITION TEMPERATURE:	Not Available
VISCOSITY:	Not Available

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: Thermal degradation may produce oxides of carbon, hydrocarbons, and/or derivatives.

SECTION 11: TOXICOLOGICAL INFORMATION

Where information is not listed specifically for constituents, published information was not available.

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS:
SKIN CORROSION/IRRITATION: Causes skin irritation
SERIOUS EYE DAMAGE/IRRITATION: Causes serious eye damage.
RESPIRATORY/SKIN SENSITIZATION: None expected
INGESTION: None expected
INHALATION: None expected

ROUTES OF EXPOSURE: Inhalation, eyes, skin, ingestion

SYMPTOMS: Causes serious eye damage. Cause skin irritation.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None known.

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	Oral LD_{50}	Rat	6,000 mg/kg bw
Sodium Lauryl Sulfate	Dermal LD_{50}	Rabbit	> 2,000 mg/kg bw
Sodium Lauryl Sulfate	LC_{50} (4 hr)	Rat	8.67 mg/L air
Cocamide MEA	Oral LD_{50}	Rat (OECD 401)	> 3,000 mg/kg bw
Cocamide MEA	Dermal LD_{50}	Rabbit	> 2,000 mg/kg bw
Zinc Pyrithione	Oral LD_{50}	Rat (OECD 401)	269 mg/kg bw
Zinc Pyrithione	Dermal LD_{50}	Rabbit (EPA OPP 81-2)	> 2,000 mg/kg bw
Zinc Pyrithione	LC_{50} (Dust – 4 hr)	Rat (OECD 403)	1.03 mg/L air
Glycerin	Oral LD50	Rat	27,200 mg/kg bw
Glycerin	Dermal LD50	Rabbit	> 18,700 mg/kg bw
Glycerin	LC_{50} (1h)	Rat	> 570 mg/m^3 air
Hexylene Glycol	Oral LD_{50}	Rat (OECD 420)	> 2,000 mg/kg bw
Hexylene Glycol	Oral LD_{50}	Rat (OECD 402)	> 2,000 mg/kg bw
Hexylene Glycol	LC_{50} (8 hr)	Rat (OECD 403)	> 60 mL/m^3 air

Skin Corrosion/Irritation:
Sodium Laureth Sulfate: Irritating (Rabbit)
Sodium Lauryl Sulfate: Irritating (Rabbit, OECD 404)
Cocamide MEA: Irritating (Rabbit, OECD 404)
Zinc Pyrithione: Not Irritating (Rabbit, OECD 404)
Glycerin: Not Irritating (Rabbit)
Hexylene Glycol: Slightly Irritating (Rabbit, OECD 404)

Serious Eye Damage/Irritation:
Sodium Laureth Sulfate: Corrosive (Rabbit)
Sodium Lauryl Sulfate: Corrosive (Rabbit)
Cocamide MEA: Corrosive (Rabbit, OECD 405)
Zinc Pyrithione: Corrosive (Rabbit, OECD 405)
Glycerin: Not Irritating (Rabbit)
Hexylene Glycol: Slightly Irritating (Rabbit, OECD 405); Irritating (Human, Vapors)

Respiratory Irritation:
Hexylene Glycol: May cause irritation (Human)

Skin Sensitization:
Sodium Laureth Sulfate: Not Sensitizing (Guinea Pig)
Sodium Lauryl Sulfate: Not Sensitizing (Guinea Pig)
Cocamide MEA: Not Sensitizing (Guinea Pig, OECD 406)
Zinc Pyrithione: Not Sensitizing (Guinea Pig, OECD 406)
Glycerin: Not Sensitizing (Guinea Pig)
Hexylene Glycol: Not Sensitizing (Guinea Pig, OECD 406)

CHRONIC HEALTH HAZARDS:

REPEAT DOSE TOXICITY:
NOAEL (Sodium Laureth Sulfate, oral): >225 mg/kg bw/d (Rat)
NOAEL (Sodium Lauryl Sulfate, oral): 100 mg/kg bw/d (Rat)
NOAEL (Cocamide MEA, oral): >750 mg/kg bw/d (28d) (Rat, OECD 407 eq.)
NOAEL (Zinc Pyrithione, oral): 0.5 mg/kg bw/d (104wk) (Rat, OECD 453)
NOAEL (Zinc Pyrithione, dermal): 100 mg/kg bw/d (90d) (Rat, EPA OPP 82-3)
NOAEL (Zinc Pyrithione, inhalation): 0.5 mg/m^3 air (90d) (Rat, EPA OPP 82-4)
NOAEL (Glycerin, oral): 8,000 mg/kg bw/d (2yr) (Rat)
NOAEL (Glycerin, inhalation): 167 mg/m^3 air (90d) (Rat, OECD 413 eq.)
NOEL (Hexylene Glycol, oral): 450 mg/kg bw/d (90d) (Rat, OECD 408)

CARCINOGENICITY:

Component Name (CAS-No.)	OSHA	ACGIH	NTP	IARC
None established	--	--	--	---

MUTAGENICITY:
Sodium Laureth Sulfate: A variety of *in vitro* and *in vivo* tests have produced negative results.
Sodium Lauryl Sulfate: A variety of *in vitro* and i*n vivo* tests have produced negative results.
Cocamide MEA: A variety of *in vitro* tests have produced negative results.
Zinc Pyrithione: A variety of *in vitro* and i*n vivo* tests have produced negative results.
Glycerin: A variety of *in vitro* tests have produced negative results.
Hexylene Glycol: A variety of *in vitro* tests have produced negative results

REPRODUCTIVE TOXICITY:
Sodium Laureth Sulfate: NOAEL >3%; 300 mg/kg/d – No adverse effects after 0.1% solutions.
Sodium Lauryl Sulfate: No adverse effect was seen on fertility.
Glycerin: NOAEL: 2,000 mg/kg/day (Rat) – No effects on fertility
Hexylene Glycol: NOAEL: 1,000 mg/kg bw/d (Rat, OECD 421)

DEVELOPMENTAL TOXICITY/TERATOGENICITY:
Sodium Laureth Sulfate: NOEAL: 1,000 mg/kg bw/d (Rat, OECD 414)
Sodium Lauryl Sulfate: NOAEL: 300 mg/kg bw/d (Rat)
Cocamide MEA: NOEL: 1,000 mg/kg bw/d (Rat, OECD 414) – No effects on development
Zinc Pyrithione: NOEAL: 0.75 mg/kg bw/d (Rat, EPA OPP 83-3)
Glycerin: NOAEL: 1,310 mg/kg/day (Rat) – No effects on development
Hexylene Glycol: NOAEL: 300 mg/kg bw/d (Rat, OECD 414)

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
Sodium Laureth Sulfate	LC_{50}	7.1 mg/L	Danio rerio	96 h
Sodium Lauryl Sulfate	LC_{50}	>10 – 100 mg/L	Fish	96 h
Cocamide MEA	LC_{50} (OECD 203)	> 3 mg/L	Oncorhynchus mykiss	96 h
Zinc Pyrithione	LC_{50} (OECD 203)	0.0026 mg/L	Pimephales promelas	96 h
Glycerin	LC_{50}	54,000 mg/L	Oncorhynchus mykiss	96 h
Hexylene Glycol	LC_{50} (OECD 203)	10,700 mg/L	Pimephales promelas	96 h

ACUTE TOXICITY TO AQUATIC INVERTEBRATES

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
Cocamide MEA	EC_{50} (OECD 202)	3 mg/L	Daphnia magna	48 h
Zinc Pyrithione	EC_{50} (OECD 202)	0.0082 mg/L	Daphnia magna	48 h
Glycerin	LC_{50}	54,000 mg/L	Oncorhynchus mykiss	96 h
Hexylene Glycol	EC_{50} (OECD 202)	5,410 mg/L	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
Cocamide MEA	EC_{50} (OECD 201)	3.9 mg/L	Desmodesmus subspicatus	72 h
Zinc Pyrithione	EC_{50} (EPA OPP 72-2)	0.0012 mg/L	Skeletonema costatum	120 h
Glycerin	EC_3	> 10,000 mg/L	Scenedesmus quadricauda	8 d
Hexylene Glycol	EC_{50} (OECD 201)	> 429 mg/L	Pseudokirchneriella subcapitata	72 h

TOXICITY TO MICROORGANISMS

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Sodium Laureth Sulfate	EC_{50}	>10 g/L	Pseudomonas putida	16 h
Sodium Lauryl Sulfate	EC_{50}	0.38 mg/L	Photobacterium phosphoreum	15 min
Cocamide MEA	EC_{50} (DIN 38412, Pt.8)	6,000 mg/L	Pseudomonas putida	16 h
Zinc Pyrithione	EC_{50} (OECD 209)	2.4 mg/L	Activated Sludge	3 h
Glycerin	NOEC	> 10,000 mg/L	Pseudomonas putida	16 h
Hexylene Glycol	NOEC	200 mg/L	Pseudomonas aeruginosa	10 d

PERSISTENCY AND DEGRADABILITY:

Sodium Laureth Sulfate: Readily biodegradable; Half Life: 30 days (soil)
Sodium Lauryl Sulfate: Readily biodegradable
Cocamide MEA Readily biodegradable – 99% (28d) – OECD 301 B
Zinc Pyrithione: Not Readily Biodegradable – 39% (28d) – OECD 301 B
Glycerin: Readily Biodegradable – 92% (30d) – OECD 301
Hexylene Glycol: Readily Biodegradable – OECD 301 F – 81% (28d)

BIOACCUMULATIVE POTENTIAL:

Sodium Laureth Sulfate: log Pow: < 4 – Not expected to bioaccumulate
Cocamide MEA: log Pow: 3.38; BCF: 64 – Not expected to bioaccumulate
Zinc Pyrithione: log Pow: 0.883 (EU A.8); BCF: 8.28 (OECD 305 E) – Not expected to bioaccumulate
Glycerin: log Pow: -1.76; BCF: 3.162 – Not expected to bioaccumulate
Hexylene Glycol: log Pow: <1; BCF: 3.16 – Not expected to bioaccumulate

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: Appropriate containers should be utilized which may include cardboard boxes for products, metal or plastic drums.

WASTE DISPOSAL METHOD: This product is not considered a federal RCRA hazardous wastes when intended for disposal. Controlled incineration at a licensed waste facility is the recommended technology for treatment and disposal. This material must not be disposed 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 (Domestic/International)

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

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

SECTION 15: REGULATORY INFORMATION

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

Workplace Hazardous Materials Identification System: Class E; Corrosive Material (Eye)

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

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: This is the first issuance of this document

Author: Ronald Weslosky (Corporate Regulatory Services)