

SAFETY DATA SHEET

1. Identification

Product identifier	PUREOLOGY REFRESH AND GO DRY SHAMPOO
Other means of identification	
SDS number	21-93-031-0
Recommended use	Personal care aerosol-packaged product used on hair for cosmetic effect.
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	

US Address: L'Oreal USA Products, Inc
133 Terminal Avenue
Clark, NJ 07066
USA

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

Emergency Phone # : 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 # : 412-390-3326

2. Hazard(s) identification

Physical hazards	Flammable aerosols	Category 1
	Gases under pressure	Liquefied gas
Health hazards	Serious eye damage/eye irritation	Category 2A
OSHA defined hazards	Not classified.	

Label elements



Signal word Danger

Hazard statement Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes serious eye irritation.

Precautionary statement

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Wash thoroughly after handling. Wear eye protection/face protection.

Response

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Storage

Protect from sunlight. Store in a well-ventilated place. Do not expose to temperatures exceeding 50°C/122°F.

Disposal

Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
BUTANE		106-97-8	51.8
ETHANOL		64-17-5	18.5
PROPANE		74-98-6	18.2
ORYZA SATIVA (RICE) STARCH		9005-25-8	5.61
ALUMINUM STARCH OCTENYLSUCCINATE		9087-61-0	4.82

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Not likely, due to the form of the product. In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	Extremely flammable aerosol. Contents under pressure. Pressurized container may explode when exposed to heat or flame.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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Methods and materials for containment and cleaning up

Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage**Precautions for safe handling**

Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Suck back of water into the container must be prevented. Do not allow backfeed into the container. Purge air from system before introducing gas. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Do not re-use empty containers. Avoid contact with eyes. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Level 3 Aerosol.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in a well-ventilated place. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Stored containers should be periodically checked for general condition and leakage. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection**Occupational exposure limits**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
ETHANOL (CAS 64-17-5)	PEL	1900 mg/m ³ 1000 ppm	
ORYZA SATIVA (RICE) STARCH (CAS 9005-25-8)	PEL	5 mg/m ³ 15 mg/m ³	Respirable fraction. Total dust.
PROPANE (CAS 74-98-6)	PEL	1800 mg/m ³ 1000 ppm	

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
ALUMINUM STARCH OCTENYLSUCCINATE (CAS 9087-61-0)	TWA	1 mg/m ³	Respirable fraction.
BUTANE (CAS 106-97-8)	STEL	1000 ppm	
ETHANOL (CAS 64-17-5)	STEL	1000 ppm	
ORYZA SATIVA (RICE) STARCH (CAS 9005-25-8)	TWA	10 mg/m ³	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
ALUMINUM STARCH OCTENYLSUCCINATE (CAS 9087-61-0)	TWA	2 mg/m ³	
BUTANE (CAS 106-97-8)	TWA	1900 mg/m ³ 800 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
ETHANOL (CAS 64-17-5)	TWA	1900 mg/m3 1000 ppm	Respirable.
ORYZA SATIVA (RICE) STARCH (CAS 9005-25-8)	TWA	5 mg/m3	
PROPANE (CAS 74-98-6)	TWA	10 mg/m3 1800 mg/m3 1000 ppm	

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles).

Skin protection**Hand protection**

Wear appropriate chemical resistant gloves.

Other

Wear suitable protective clothing.

Respiratory protection

If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance****Physical state**

Liquid.

Form

Aerosol. Liquefied gas.

Color

Not available.

Odor

Characteristic.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

Not available.

Flash point

Not available.

Evaporation rate

Not available.

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits**Flammability limit - lower (%)**

Not available.

Flammability limit - upper (%)

Not available.

Vapor pressure

Not available.

Vapor density

Not available.

Specific gravity

Not available.

Solubility(ies)**Solubility (water)**

Not available.

Partition coefficient (n-octanol/water)

Not available.

Auto-ignition temperature

Not available.

Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Heat of combustion (NFPA 30B)	> 30 kJ/g
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Nitrates. Fluorine. Chlorine.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Causes serious eye irritation.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
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Information on toxicological effects

Acute toxicity	Not known.
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Components	Species	Test Results
ALUMINUM STARCH OCTENYLSUCCINATE (CAS 9087-61-0)		
<u>Acute</u>		
Inhalation		
LD50	Rat	> 200 mg/L air, 1 h
Oral		
LD50	Rat	> 3000 mg/kg bw
ETHANOL (CAS 64-17-5)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 20000 mg/kg bw
Inhalation		
<i>Vapor</i>		
LC50	Rat	124.7 mg/L air, 4 h OECD 403
Oral		
LD50	Rat	10470 mg/kg bw OECD 401

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	No adverse effects due to skin contact are expected.
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Irritation Corrosion - Skin
ETHANOL

OECD 404
Result: Not Irritating
Species: Rabbit

Serious eye damage/eye irritation	Causes serious eye irritation.
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Irritation Corrosion - Eye

ALUMINUM STARCH OCTENYLSUCCINATE

Draize Test

Result: Not Irritating

Species: Rabbit

ETHANOL

OECD 405

Result: Irritating

Species: Rabbit

Respiratory or skin sensitization**Respiratory sensitization** Not a respiratory sensitizer.**Skin sensitization** This product is not expected to cause skin sensitization.**Skin sensitization**

ALUMINUM STARCH OCTENYLSUCCINATE

GPMT

Result: Not Sensitizing

Species: Guinea pig

ETHANOL

OECD 406

Result: Not Sensitizing

Species: Guinea pig

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Mutagenicity

ETHANOL

Result: In vitro and in vivo tests did not show mutagenic effects.

Carcinogenicity

Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

Developmental effects

ETHANOL

> 20000 ppm OECD 414, No effects on development

Result: NOAEL

Species: Rat

Reproductivity

ETHANOL

20700 mg/kg bw/d OECD 416, No effects on fertility

Result: NOAEL

Species: Rat

Specific target organ toxicity - single exposure

Not classified.

Specific target organ toxicity - repeated exposure

Not classified.

ETHANOL

1730 mg/kg bw/d OECD 408, Oral

Result: NOAEL

Species: Rat

Aspiration hazard

Not an aspiration hazard.

12. Ecological information**Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components**Species****Test Results**

ETHANOL (CAS 64-17-5)

Aquatic*Acute*

Algae

EC50

Pseudokirchneriella subcapitata

22200 mg/l, 96 h

Crustacea

EC50

Ceriodaphnia dubia

5012 mg/l, 48 h

Fish

LC50

Pimephales promelas

15300 mg/l, 96 h

Components	Species	Test Results
Other	IC50	Activated sludge of a predominantly domestic sewage
		> 1000 mg/l, 3 h

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

Biodegradability

Percent degradation (Aerobic biodegradation)

ETHANOL	84 %
	Result: Readily Biodegradable
	Test Duration: 20 d

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

BUTANE	2.89
ETHANOL	-0.31
PROPANE	2.36

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	This product is ignitable (D001) RCRA hazardous wastes when intended for disposal.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. Transport information

General information Ensure compliance with applicable regulations.

DOT

FINISHED GOODS

UN number	UN1950
UN proper shipping name	AEROSOLS, FLAMMABLE, Limited Quantity
Class	2.1
Packing group	Not applicable.
Transport hazard class(es)	
Label(s)	Limited Quantity
Packaging exceptions	306

BULK

UN number	UN1170
UN proper shipping name	ETHANOL SOLUTION
Class	3
Packing group	II
Transport hazard class(es)	
Label(s)	3
Special provisions	24, IB2, T4, TP1
Packaging non bulk	202

IATA

FINISHED GOODS

UN number	ID8000
UN proper shipping name	CONSUMER COMMODITY
Class	9 - Class 9
Packing group	Not applicable.

Transport hazard class(es)

Label(s) Class 9, Limited Quantity
ERG Number 9L
Special Provisions A112
LTD QTY Net Inner Capacity 0.5 L
Packing instruction (LQ) Y963

BULK

UN number UN1170
UN proper shipping name ETHANOL SOLUTION
Class 3
Packing group II
ERG Number 3L
Special Provisions A3,A58,A180

IMDG**FINISHED GOODS**

UN number UN1950
UN proper shipping name AEROSOLS, FLAMMABLE, Limited Quantity
Class 2.1
Packing group Not applicable.
Environmental Hazards
Marine pollutant No.
Transport hazard class(es)
Label(s) Limited Quantity
EmS F-D, S-U

BULK

UN number UN1170
UN proper shipping name ETHANOL SOLUTION
Class 3
Packing group II
Environmental hazards
Marine pollutant No.
EmS F-E, S-D

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

BUTANE (CAS 106-97-8)	Listed.
ETHANOL (CAS 64-17-5)	Listed.
PROPANE (CAS 74-98-6)	Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - Yes
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

BUTANE (CAS 106-97-8)

PROPANE (CAS 74-98-6)

Safe Drinking Water Act (SDWA)

Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

ETHANOL (CAS 64-17-5)

Low priority

16. Other information, including date of preparation or last revision

Issue date 04-19-2018

Version # 01

NFPA ratings Health: 2
Flammability: 4
Instability: 3

Disclaimer Pureology cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.