

SECTION 1: Identification

1.1. Identification

Product form : Mixtures
Trade name : PhD Heat Styling Spray
Product code : AF-481

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Cosmetics, personal care products

1.3. Supplier

Living Proof, Inc.
One Design Center Place
Suite 600
Boston, MA 02210
T: 617-621-1800 F: 617-621-1880
E: questions@livingproof.com

livingproof.com

1.4. Emergency telephone number

Emergency number : Chemtrec - +1-800-424-9300 or +1-703-527-3887

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable aerosol Category 1	H222	Extremely flammable aerosol
Gases under pressure Liquified Gas	H280	Contains gas under pressure; may explode if heated
Serious eye damage/eye irritation Category 2A	H319	Causes serious eye irritation

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: H222 - Extremely flammable aerosol
H280 - Contains gas under pressure; may explode if heated
H319 - Causes serious eye irritation

Precautionary statements (GHS US)

: P102 - Keep out of reach of children.
P103 - Read label before use.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 - Do not spray on an open flame or other ignition source.
P251 - Do not pierce or burn, even after use.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P410+P403 - Protect from sunlight. Store in a well-ventilated place.
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

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2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Ethyl alcohol	CAS-No.: 64-17-5	48.3145	Flam. Liq. 2, H225 Eye Irrit. 2A, H319

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

INGREDIENTS: Alcohol Denat., Hydrofluorocarbon 152a, Water/Eau/Aqua, Isododecane, C13-15 Alkane, Dicaprylyl Ether, Sunflower Seed Oil Glycerides, Polyquaternium-16, Dioleylethyl Hydroxyethylmonium Methosulfate, Propylene Glycol Dibenzoate, Isohexadecane, Triheptanoin, PPG-5-Ceteth-20, C13-16 Isoalkane, PEG-40 Hydrogenated Castor Oil, Fragrance/Parfum, Aminomethyl Propanol, Linalool, Coumarin, Citronellol, Geraniol, Citral, Limonene.

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: If skin irritation occurs: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Get medical advice if skin irritation persists.
First-aid measures after eye contact	: In case of contact, immediately rinse eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after eye contact	: Causes serious eye irritation.
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4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

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5.2. Specific hazards arising from the chemical

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|--|---|
| Fire hazard | : Extremely flammable aerosol. Cool closed containers exposed to fire with water spray. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. |
| Explosion hazard | : Contains gas under pressure; may explode if heated. |
| Hazardous decomposition products in case of fire | : Incomplete combustion may form carbon monoxide. |

5.3. Special protective equipment and precautions for fire-fighters

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|--------------------------------|---|
| Firefighting instructions | : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. |
| Protection during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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| General measures | : Eliminate all ignition sources if safe to do so. |
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6.1.1. For non-emergency personnel

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|----------------------|-----------------------------------|
| Emergency procedures | : Evacuate unnecessary personnel. |
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6.1.2. For emergency responders

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|----------------------|-------------------|
| Emergency procedures | : Ventilate area. |
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

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| For containment | : Collect spillage. |
| Methods for cleaning up | : Wipe up remaining liquid with absorbent material (for example cloth). Take precautionary measures against static discharge. |
| Other information | : This material and its container must be disposed of in a safe way, and as per local legislation. |

6.4. Reference to other sections

For further information refer to section 8: « Exposure controls/personal protection ». For disposal of residues refer to section 13 : « Disposal considerations ».

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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| Additional hazards when processed | : Container remains hazardous when empty. Continue to observe all precautions. |
| Precautions for safe handling | : Use only in well ventilated areas. Avoid contact with eyes. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Pressurized container: Do not pierce or burn, even after use. |
| Hygiene measures | : Do not smoke while handling product. Wash hands thoroughly after handling. Use good personal hygiene practices. |

7.2. Conditions for safe storage, including any incompatibilities

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|------------------------|---|
| Storage conditions | : Aerosol Storage level 1. Keep cool. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Store in a well-ventilated place. |
| Incompatible materials | : Strong oxidizing agents. |

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

PhD Heat Styling Spray	
No additional information available	
Ethyl alcohol (64-17-5)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Ethanol
ACGIH OEL STEL [ppm]	1000 ppm
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
ACGIH chemical category	Confirmed Animal Carcinogen with Unknown Relevance to Humans
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
Local name	Ethyl alcohol (Ethanol)
OSHA PEL (TWA) [1]	1900 mg/m³
OSHA PEL (TWA) [2]	1000 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - IDLH - Occupational Exposure Limits	
IDLH [ppm]	3300 ppm (10% LEL)
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA)	1900 mg/m³
NIOSH REL TWA [ppm]	1000 ppm

8.2. Appropriate engineering controls

Appropriate engineering controls : Good standard of general ventilation.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Not required for normal conditions of use. Normal use of this product shall imply use in accordance with the instructions on the packaging.

Hand protection:

Not required for normal conditions of use. Normal use of this product shall imply use in accordance with the instructions on the packaging

Eye protection:

If there is a risk of eye contact: Use suitable eye protection

Respiratory protection:

Not required for normal conditions of use. Normal use of this product shall imply use in accordance with the instructions on the packaging

Other information:

Do not eat, drink or smoke during use.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear.
Color	: Colorless with slightly yellow tint
Odor	: Characteristic
Odor threshold	: No data available
pH	: 5.7 – 7 @ 25 °C
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 17.5 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Extremely flammable aerosol.
Vapor pressure	: 53 – 77 psig @21°C
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 0.81 – 0.83 @ 25 °C
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

Gas group	: Press. Gas (Liq.)
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SECTION 10: Stability and reactivity

10.1. Reactivity

Heating will cause a rise in pressure with a risk of bursting.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Stable under normal conditions of use.

10.4. Conditions to avoid

No flames, no sparks. Eliminate all sources of ignition. Avoid static electricity discharges. Keep out of direct sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

Ethyl alcohol (64-17-5)	
LD50 oral rat	7060 mg/kg
LD50 oral	10470 mg/kg body weight
LD50 dermal	15800 mg/kg body weight
LC50 Inhalation - Rat	133.8 mg/l/4h
LC50 Inhalation - Rat (Dust/Mist)	> 99999 mg/l

Skin corrosion/irritation : Not classified (On basis of test data)
Serious eye damage/irritation : Causes serious eye irritation. (On basis of test data)
Respiratory or skin sensitization : Not classified (On basis of test data)
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Ethyl alcohol (64-17-5)	
LOAEL (oral,rat,90 days)	3200 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (oral,rat,90 days)	1730 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Remarks on results: other:
NOAEL (subchronic,oral,animal/male,90 days)	< 9700 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
NOAEL (subchronic,oral,animal/female,90 days)	> 9400 mg/kg body weight Animal: mouse, Animal sex: female, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)
Viscosity, kinematic : No data available
Symptoms/effects after eye contact : Causes serious eye irritation.
Other information : Historical Data, not tested on Animals for cosmetics.
Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Historical Data, not tested on Animals for cosmetics.

Ethyl alcohol (64-17-5)	
LC50 - Fish [1]	12 – 16 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
LC50 - Other aquatic organisms [1]	5012 mg/l 48 hours- daphnia
EC50 - Crustacea [1]	9268 – 14221 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 - Other aquatic organisms [1]	5012 mg/l waterflea

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Ethyl alcohol (64-17-5)	
LC50 - Fish [2]	> 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Crustacea [2]	2 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 - Other aquatic organisms [2]	275 mg/l
EC50 96h - Algae [1]	≈ 22000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	275 mg/l Source: ECHA
ErC50 other aquatic plants	4432 mg/l
NOEC (acute)	9.6 mg/l Daphnia magna
NOEC (chronic)	9.6 mg/l Test organisms (species): Daphnia magna Duration: '9 d'
NOEC chronic crustacea	9.6 mg/l

12.2. Persistence and degradability

PhD Heat Styling Spray	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

PhD Heat Styling Spray	
Bioaccumulative potential	Not established.

Ethyl alcohol (64-17-5)	
Partition coefficient n-octanol/water (Log Pow)	-0.35 (at 24 °C (at pH 7.4)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

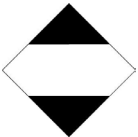
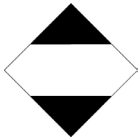
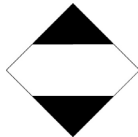

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
1950	UN1950	1950	1950

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DOT	TDG	IMDG	IATA
14.2. Proper Shipping Name			
Aerosols	AEROSOLS	AEROSOLS	Aerosols, flammable
14.3. Transport hazard class(es)			
2.1 (LTD QTY)	2.1 (LTD QTY)	2.1 (LTD QTY)	2.1 (LTD QTY)
			
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
<p>Consult the associated transport regulations for available and applicable exceptions or exemptions.</p> <p>The suitable shipping classification must be evaluated at the time of shipment due to the possibility for variations in regards to the transportation of this material considering the requirements, modes of transport, packaging, packaging configuration, quantity etc. Please consult the appropriate regulation for specific shipping information and requirements.</p> <p>This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation information can be obtained through the authorized transporting corporation. It is the responsibility of the transporting corporation to follow all applicable laws, regulations and rules relating to the transportation of this product.</p>			

SECTION 15: Regulatory information

Present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory: All components not listed.

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Component	State or local regulations
Ethyl alcohol(64-17-5)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List; U.S. - Minnesota - Hazardous Substance List; U.S. - Massachusetts - Right To Know List; U.S. - Maine - Chemicals of Concern
(R)-p-mentha-1,8-diene, d-limonene(5989-27-5)	U.S. - Maine - Chemicals of Concern
1,1-Difluoroethane(75-37-6)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Massachusetts - Right To Know List

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Canadian DSL (Domestic Substances List): Not all components listed

Canadian NDSL (Non-Domestic Substances List) : Not all components listed

Australian Industrial Chemicals Introduction Scheme (AICIS Inventory) : Not all components listed

PICCS (Philippines Inventory of Chemicals and Chemical Substances) : Not all components listed

Japanese ENCS (Existing New Chemical Substances) inventory: Not all components listed

KECL/KECI (Korean Existing Chemicals Inventory) : Not all components listed

IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) : Not all components listed

NZIoC (New Zealand Inventory of Chemicals) : Not all components listed

INSQ (Mexican National Inventory of Chemical Substances) : Not all components listed

TCSI (Taiwan Chemical Substance Inventory) : Not all components listed

NCI (Vietnam - National Chemical Inventory) : Not all components listed

SECTION 16: Other information

according to US HazCom 2012

Revision date : 1 February 2023

Other information : None.

Safety Data Sheet (SDS), USA

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