

# Material Safety Data Sheet

Design Freedom Acid Perm for N and T Hair - Activator



## 1. Product and company identification

<b>Product name</b>	: Design Freedom Acid Perm for N and T Hair - Activator
<b>Manufacturer</b>	: Zotos International, INC 100 Tokeneke Road, Darien, CT 06820 www.zotos.com
<b>Validation date</b>	: 9/12/2012.
<b>In case of emergency</b>	: (800) 584-8038 [24 Hours]
<b>Telephone number</b>	: (203) 656-7859 [8:30 a.m. - 5:00 p.m.]
<b>Transportation Emergency</b>	: Contact: CHEMTREC 1-800-424-9300 [US/Canada 24 Hours]
<b>Product type</b>	: Liquid.

## 2. Hazards identification

### Emergency overview

NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

<b>Color</b>	: Clear. Hazy
<b>Odor</b>	: Mild. Sulfurous.
<b>Hazard statements</b>	: MAY CAUSE EYE AND SKIN IRRITATION.
<b>Precautionary measures</b>	: Do not breathe vapor or mist. Do not eat, drink or smoke when using this product. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
<b>OSHA/HCS status</b>	: None.

### Potential acute health effects

<b>Inhalation</b>	: MAY CAUSE RESPIRATORY TRACT IRRITATION.
<b>Ingestion</b>	: Mild irritant
<b>Skin</b>	: May cause skin irritation.
<b>Eyes</b>	: Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc.

### Potential chronic health effects

<b>Chronic effects</b>	: Contains material that may cause target organ damage, based on animal data.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.
<b>Fertility effects</b>	: No known significant effects or critical hazards.
<b>Over-exposure signs/symptoms</b>	: None identified.

<b>Medical conditions aggravated by over-exposure</b>	: None.
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See toxicological information (Section 11)

### 3. Composition/information on ingredients

#### United States

Name	CAS number	%
glycerol	56-81-5	19.98

#### Canada

Name	CAS number	%
glycerol	56-81-5	19.98

#### Mexico

Name	CAS number	UN number	%	IDLH	Classification			
					H	F	R	Special
glycerol	56-81-5	Not available.	19.98	-	1	1	0	-

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

### 4. First aid measures

- Eye contact** : Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical attention.
- Skin contact** : Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if you feel unwell.
- Ingestion** : Get medical attention immediately.
- Protection of first-aiders** : Use suitable protective equipment (section 8).
- Notes to physician** : Treat symptomatically.

### 5. Fire-fighting measures

- Flammability of the product** : None.
- Extinguishing media** : Extinguish fire using an agent suitable for the surrounding fire.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special fire-fighting procedures** : None.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
sulfur oxides
- Special protective equipment for fire-fighters** : None known.

### 6. Accidental release measures

- Personal precautions** : Wear suitable protective clothing, gloves and eye/face protection.
- Environmental precautions** : If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.
- Methods for cleaning up** : Wear alkali-resistant protective clothing. Hazard of slipping on spilled product. Use absorbent chemicals or dry sand. Use a tool to scoop up solid or absorbed material and place into appropriate labeled waste container. Wash with plenty of soap and water.

## 7. Handling and storage

- Handling** : Keep container closed. Avoid contact with skin and eyes. Do not breathe dust.
- Storage** : Store in a cool, well-ventilated, dry place. Store in a dry place at low temperature away from ignition and heat sources. Avoid increased storage temperature.

## 8. Exposure controls/personal protection

### United States

Ingredient	Exposure limits
glycerol	<b>ACGIH TLV (United States, 3/2012).</b> TWA: 10 mg/m <sup>3</sup> 8 hour(s). Form: Inhalable fraction <b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 5 mg/m <sup>3</sup> 8 hour(s). Form: Respirable fraction TWA: 10 mg/m <sup>3</sup> 8 hour(s). Form: Total dust <b>OSHA PEL (United States, 6/2010).</b> TWA: 5 mg/m <sup>3</sup> 8 hour(s). Form: Respirable fraction TWA: 15 mg/m <sup>3</sup> 8 hour(s). Form: Total dust

### Canada

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			
Ingredient	List name	ppm	mg/m <sup>3</sup>	Other	ppm	mg/m <sup>3</sup>	Other	ppm	mg/m <sup>3</sup>	Other	Notations
glycerol	US ACGIH 3/2012	-	10	-	-	-	-	-	-	-	[a]
	AB 4/2009	-	10	-	-	-	-	-	-	-	[3] [b]
	BC 9/2011	-	10	-	-	-	-	-	-	-	[b]
		-	3	-	-	-	-	-	-	-	[c]
	ON 7/2010	-	10	-	-	-	-	-	-	-	[a]
	QC 9/2011	-	10	-	-	-	-	-	-	-	[d]

[3]Skin sensitization

Form: [a]Inhalable fraction [b]Mist [c]Respirable mist [d]mist

### Mexico

#### Occupational exposure limits

Ingredient	Exposure limits
glycerol	<b>NOM-010-STPS (Mexico, 9/2000).</b> LMPE-PPT: 10 mg/m <sup>3</sup> 8 hour(s). Form: mist

Consult local authorities for acceptable exposure limits.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

**Engineering measures** : In case of insufficient ventilation, wear suitable respiratory equipment.

**Hygiene measures** : Avoid contact with skin and eyes. If in eyes or on skin, rinse well with water. When using do not eat, drink or smoke.

#### Personal protection

**Respiratory** : In case of insufficient ventilation, wear suitable respiratory equipment.

**Hands** : Wear suitable gloves.

**Eyes** : Wear eye/face protection.

**Skin** : Wear suitable protective clothing.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Other protection** : Not available.

## 9. Physical and chemical properties

<b>Physical state</b>	: Liquid. [Viscous liquid.]
<b>Flash point</b>	: Closed cup: Not applicable.
<b>Color</b>	: Clear. Hazy
<b>Odor</b>	: Mild. Sulfurous.
<b>Boiling/condensation point</b>	: >212°C (>413.6°F)
<b>Relative density</b>	: 1.2 to 1.4

## 10. Stability and reactivity

<b>Chemical stability</b>	: Stable under recommended storage and handling conditions (see section 7).
<b>Conditions to avoid</b>	: Not available.
<b>Incompatible materials</b>	: No specific data.
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
<b>Possibility of hazardous reactions</b>	: Not available.
<b>Hazardous polymerization</b>	: Not available.

## 11. Toxicological information

### United States

#### Acute toxicity

Product/ingredient name	Result	Dose	Exposure
glycerol	LD50 Oral	12600 mg/kg	-

**Conclusion/Summary** : Not available.

#### Chronic toxicity

**Conclusion/Summary** : Not available.

#### Irritation/Corrosion

Product/ingredient name	Result	Score	Exposure	Observation
glycerol	Eyes - Mild irritant	-	24 hours 500 milligrams	-
	Skin - Mild irritant	-	24 hours 500 milligrams	-

**Conclusion/Summary** : Not available.

#### Sensitizer

**Conclusion/Summary** : Not available.

#### Carcinogenicity

**Conclusion/Summary** : No carcinogenic effect.

#### Mutagenicity

**Conclusion/Summary** : Not available.

#### Teratogenicity

**Conclusion/Summary** : Not available.

#### Reproductive toxicity

**Conclusion/Summary** : Not available.

### Canada

#### Acute toxicity

Product/ingredient name	Result	Dose	Exposure
glycerol	LD50 Oral	12600 mg/kg	-

**Conclusion/Summary** : Not available.

## 11. Toxicological information

### Chronic toxicity

**Conclusion/Summary** : Not available.

### Irritation/Corrosion

Product/ingredient name	Result	Score	Exposure	Observation
glycerol	Eyes - Mild irritant	-	24 hours 500 milligrams	-
	Skin - Mild irritant	-	24 hours 500 milligrams	-

**Conclusion/Summary** : Not available.

### Sensitizer

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Mutagenicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

### Mexico

### Acute toxicity

Product/ingredient name	Result	Dose	Exposure
glycerol	LD50 Oral	12600 mg/kg	-

**Conclusion/Summary** : Not available.

### Chronic toxicity

**Conclusion/Summary** : Not available.

### Irritation/Corrosion

Product/ingredient name	Result	Score	Exposure	Observation
glycerol	Eyes - Mild irritant	-	24 hours 500 milligrams	-
	Skin - Mild irritant	-	24 hours 500 milligrams	-

**Conclusion/Summary** : Not available.

### Sensitizer

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Mutagenicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

## 12. Ecological information

THE FOLLOWING DATA IN THIS SECTION IS SOURCED FROM PUBLICLY AVAILABLE DATABASES AND NOT THE REPRESENTATION OF ANY DATA COLLECTED BY ZOTOS INTERNATIONAL OR ITS AFFILIATES.

**Ecotoxicity** : No known significant effects or critical hazards.

### United States

#### Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
glycerol	Acute LC50 54 ml/L Fresh water	Fish - Oncorhynchus mykiss - 0.9 g	96 hours

**Conclusion/Summary** : Not available.

#### Persistence/degradability

**Conclusion/Summary** : Not available.

### Canada

#### Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
glycerol	Acute LC50 54 ml/L Fresh water	Fish - Oncorhynchus mykiss - 0.9 g	96 hours

**Conclusion/Summary** : Not available.

#### Persistence/degradability

**Conclusion/Summary** : Not available.

### Mexico

#### Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
glycerol	Acute LC50 54 ml/L Fresh water	Fish - Oncorhynchus mykiss - 0.9 g	96 hours

**Conclusion/Summary** : Not available.

#### Persistence/degradability

**Conclusion/Summary** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## 13. Disposal considerations

**Waste disposal** : Dispose of according to all federal, state and local applicable regulations.

**Contaminated packaging** : Waste must be disposed of according to applicable regulations. This material and its container must be disposed of as hazardous waste.

**Waste residues information** : Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
<b>DOT Classification</b>	Not regulated.	-	-	-		-
<b>TDG Classification</b>	Not regulated.	-	-	-		-
<b>Mexico Classification</b>	Not regulated.	-	-	-		-

## 14. Transport information

<b>ADR/RID Class</b>	Not regulated.	-	-	-	-
<b>IMDG Class</b>	Not regulated.	-	-	-	-
<b>IATA-DGR Class</b>	Not regulated.	-	-	-	-

PG\* : Packing group

## 15. Regulatory information

### United States

HCS Classification : Target organ effects

U.S. Federal regulations : TSCA : Exempt

**SARA 302/304/311/312 extremely hazardous substances:** No products were found.**SARA 302/304 emergency planning and notification:** No products were found.**SARA 302/304/311/312 hazardous chemicals:** glycerol**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:**  
glycerol: Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

### State regulations

Massachusetts : The following components are listed: GLYCERINE MIST

New York : None of the components are listed.

New Jersey : The following components are listed: GLYCERIN; 1,2,3-PROPANETRIOL

Pennsylvania : The following components are listed: 1,2,3-PROPANETRIOL

### California Prop. 65

CALIFORNIA PROPOSITION 65: The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986. This product is not known to the State of California to cause cancer.

United States inventory (TSCA 8b) : All components are listed or exempted.

### Canada

WHMIS (Canada) : Not controlled under WHMIS (Canada).

### Canadian lists

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

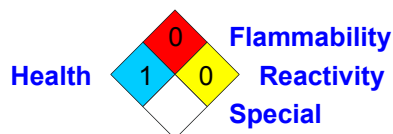
Canada inventory : All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

### Mexico

Classification :

## 15. Regulatory information



### International regulations

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

## 16. Other information

Hazardous Material Information System (U.S.A.) :

Health	1
Flammability	0
Physical hazards	0

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National Fire Protection Association (U.S.A.) :



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Date of printing : 9/9/2013.

Date of issue : 9/12/2012.

Date of previous issue : No previous validation.

Version : 2

Prepared by : Regulatory Affairs Group

Indicates information that has changed from previously issued version.

Notice to reader



## **16. Other information**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.