

# Material Safety Data Sheet



Vero K-PAK Age Defy Color all shades ( except Clear)

## 1. Product and company identification

<b>Product name</b>	: Vero K-PAK Age Defy Color all shades ( except Clear)
<b>Manufacturer</b>	: Zotos International, INC 100 Tokeneke Road, Darien, CT 06820 www.zotos.com
<b>Validation date</b>	: 3/2/2015.
<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>	: Colored
<b>Odor</b>	: Ammoniacal.
<b>Hazard statements</b>	: HARMFUL IF SWALLOWED. CAUSES EYE AND SKIN IRRITATION.
<b>Precautionary measures</b>	: Do not ingest. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
<b>OSHA/HCS status</b>	: None.

### Potential acute health effects

<b>Inhalation</b>	: Irritating to eyes, mucosa and skin and may cause burns.
<b>Ingestion</b>	: non-toxic.
<b>Skin</b>	: Severely irritating to the skin.
<b>Eyes</b>	: CAUTION Causes eye irritation.

### Potential chronic health effects

<b>Chronic effects</b>	: No known significant effects or critical hazards.
<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.

See toxicological information (Section 11)

### 3. Composition/information on ingredients

#### Canada

Name	CAS number	%
hexadecan-1-ol	36653-82-4	4.25
propane-1,2-diol	57-55-6	3.00
(Z)-octadec-9-enol	143-28-2	2.00
Octadecan-1-ol, ethoxylated	9005-00-9	1.70
ammonia	1336-21-6	1.68
glycerol 1-stearate	123-94-4	1.50
White mineral oil (petroleum)	8042-47-5	1.25
p-phenylenediamine	106-50-3	0.48
3-aminophenol	591-27-5	0.14

#### Mexico

Name	CAS number	UN number	%	IDLH	Classification			
					H	F	R	Special
ammonia	1336-21-6	Not available.	1.68	-	2	0	0	-
propane-1,2-diol	57-55-6	Not available.	3.00	-	2	1	0	-
palmitic acid	57-10-3	Not available.	2.00	-	1	0	0	-
hexadecan-1-ol	36653-82-4	Not available.	4.25	-	2	0	0	-
(Z)-octadec-9-enol	143-28-2	Not available.	2.00	-	2	0	0	-
Octadecan-1-ol, ethoxylated	9005-00-9	Not available.	1.70	-	2	0	0	-
glycerol 1-stearate	123-94-4	Not available.	1.50	-	0	0	0	-
White mineral oil (petroleum)	8042-47-5	Not available.	1.25	2500 mg/m <sup>3</sup>	0	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. Check for and remove any contact lenses. Get medical attention immediately.

#### Skin contact

: Wash the contaminated skin gently and thoroughly with running water and non-abrasive soap. If on clothes, remove clothes. Get medical attention if adverse health effects persist or are severe.

#### Inhalation

: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Ensure sufficient ventilation during and after use, in order to prevent vapour accumulation. Seek immediate medical attention.

#### Ingestion

: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. 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 identified.
- 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  
nitrogen oxides
- Special protective equipment for fire-fighters** : In a fire, decomposition may produce toxic gases/fumes. Wear suitable protective clothing.

## 6. Accidental release measures

- Personal precautions** : Wear suitable protective clothing, gloves and eye/face protection.
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up** : Wash with plenty of soap and water. Use a water rinse for final clean-up.

## 7. Handling and storage

- Handling** : Avoid contact with skin and eyes. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10).
- Storage** : Store in a cool, dry, well-ventilated place. Do not store and tint after it has been mixed with developer the container may rupture

## 8. Exposure controls/personal protection

### Canada

<u>Occupational exposure limits</u>		TWA (8 hours)			STEL (15 mins)			Ceiling			Notations
Ingredient	List name	ppm	mg/m <sup>3</sup>	Other	ppm	mg/m <sup>3</sup>	Other	ppm	mg/m <sup>3</sup>	Other	
propane-1,2-diol	ON 1/2013	-	10	-	-	-	-	-	-	-	[a]
		50	155	-	-	-	-	-	-	-	[b]
p-phenylenediamine	US AIHA 10/2011	-	10	-	-	-	-	-	-	-	
	US ACGIH 6/2013	-	0.1	-	-	-	-	-	-	-	
	AB 4/2009	-	0.1	-	-	-	-	-	-	-	
	BC 7/2013	-	0.1	-	-	-	-	-	-	-	[3]
glycerol 1-stearate	ON 1/2013	-	0.1	-	-	-	-	-	-	-	
	QC 12/2012	-	0.1	-	-	-	-	-	-	-	[1][3]
	US ACGIH 6/2013	-	10	-	-	-	-	-	-	-	[c]
	AB 4/2009	-	10	-	-	-	-	-	-	-	[3]
	BC 7/2013	-	10	-	-	-	-	-	-	-	
White mineral oil (petroleum)	ON 1/2013	-	10	-	-	-	-	-	-	-	[c]
	US ACGIH 6/2013	-	5	-	-	-	-	-	-	-	[d]
	AB 4/2009	-	5	-	-	10	-	-	-	-	[e]
	BC 7/2013	-	1	-	-	-	-	-	-	-	
	ON 1/2013	-	5	-	-	10	-	-	-	-	[f]
	QC 12/2012	-	5	-	-	10	-	-	-	-	[f]

[1]Absorbed through skin. [3]Skin sensitization

**Form:** [a]Aerosol only. [b]Vapour and aerosol. [c]Total particulate mass [d]Inhalable fraction [e]Mist [f]mist

### Mexico

#### Occupational exposure limits

## 8. Exposure controls/personal protection

Ingredient	Exposure limits
glycerol 1-stearate White mineral oil (petroleum)	<b>ACGIH TLV (United States, 6/2013).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Total particulate mass <b>NOM-010-STPS (Mexico, 9/2000).</b> LMPE-PPT: 5 mg/m <sup>3</sup> 8 hours. Form: mist LMPE-CT: 10 mg/m <sup>3</sup> 15 minutes. 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. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Engineering measures** : In case of insufficient ventilation, wear suitable respiratory equipment. No special ventilation requirements.

**Hygiene measures** : 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** : None.

**Skin** : Not available.

**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.
<b>Flash point</b>	: Closed cup: Not applicable.
<b>Color</b>	: Colored
<b>Odor</b>	: Ammoniacal.
<b>pH</b>	: 9.65
<b>Relative density</b>	: 0.985 to 1.05

## 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>	: Ammonia.
<b>Possibility of hazardous reactions</b>	: Not available.
<b>Hazardous polymerization</b>	: Not available.

## 11. Toxicological information

### Canada

#### Acute toxicity

Product/ingredient name	Result	Dose	Exposure
ammonia	LD50 Oral	350 mg/kg	-
propane-1,2-diol	LD50 Dermal	20800 mg/kg	-
	LD50 Oral	20 g/kg	-
hexadecan-1-ol	LD50 Oral	5 g/kg	-
3-aminophenol	LD50 Oral	924 mg/kg	-
p-phenylenediamine	LC50 Inhalation Dusts and mists	920 mg/m <sup>3</sup>	4 hours
	LD50 Oral	80 mg/kg	-
White mineral oil (petroleum)	LD50 Oral	>5000 mg/kg	-

**Conclusion/Summary** : Not available.

#### Chronic toxicity

**Conclusion/Summary** : Not available.

#### Irritation/Corrosion

Product/ingredient name	Result	Score	Exposure	Observation
ammonia	Eyes - Severe irritant	-	250 Micrograms	-
	Eyes - Severe irritant	-	0.5 minutes 1 milligrams	-
propane-1,2-diol	Eyes - Mild irritant	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	-	100 milligrams	-
	Skin - Moderate irritant	-	96 hours 30 Percent continuous	-
	Skin - Mild irritant	-	168 hours 500 milligrams	-
	Skin - Moderate irritant	-	72 hours 104 milligrams Intermittent	-
	Skin - Mild irritant	-	96 hours 30 Percent	-
hexadecan-1-ol	Eyes - Mild irritant	-	82 milligrams	-
	Skin - Mild irritant	-	100 Percent	-
	Skin - Moderate irritant	-	24 hours 100 milligrams	-
	Skin - Mild irritant	-	72 hours 75 milligrams Intermittent	-
	Skin - Severe irritant	-	0.2 Percent	-
	Skin - Mild irritant	-	48 hours 50 milligrams	-
	Skin - Severe irritant	-	24 hours 100 milligrams	-
	Skin - Mild irritant	-	24 hours 2600 milligrams	-
	Skin - Severe irritant	-	24 hours 100 milligrams	-
(Z)-octadec-9-enol	Eyes - Mild irritant	-	24 hours 100 milligrams	-

## 11. Toxicological information

Octadecan-1-ol, ethoxylated 3-aminophenol p-phenylenediamine	Skin - Severe irritant	-	24 hours 100 milligrams	-
	Skin - Mild irritant	-	72 hours 75 milligrams	-
	Skin - Moderate irritant	-	Intermittent 24 hours 100 milligrams	-
	Skin - Mild irritant	-	24 hours 500 milligrams	-
	Skin - Severe irritant	-	24 hours 100 milligrams	-
	Skin - Moderate irritant	-	48 hours 20 Percent	-
	Eyes - Moderate irritant	-	24 hours 100 milligrams	-
	Skin - Mild irritant	-	24 hours 12500 Micrograms	-
	Skin - Mild irritant	-	24 hours 250 milligrams	-
	Skin - Mild irritant	-	24 hours 250 milligrams	-
	Skin - Mild irritant	-	24 hours 250 milligrams	-
	Skin - Mild irritant	-	24 hours 250 milligrams	-
	Skin - Mild irritant	-	24 hours 250 milligrams	-
	Skin - Mild irritant	-	24 hours 12500 Micrograms	-
Skin - Moderate irritant	-	24 hours 250 milligrams	-	
Skin - Moderate irritant	-	1 Percent	-	

**Conclusion/Summary** : Not available.

### Sensitizer

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
glycerol 1-stearate	A4	-	-	-	-	-
White mineral oil (petroleum)	A4	-	-	-	-	-

### Mutagenicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

### Mexico

### Acute toxicity

## 11. Toxicological information

Product/ingredient name	Result	Dose	Exposure
ammonia	LD50 Oral	350 mg/kg	-
propane-1,2-diol	LD50 Dermal	20800 mg/kg	-
	LD50 Oral	20 g/kg	-
palmitic acid	LD50 Oral	>10 g/kg	-
hexadecan-1-ol	LD50 Oral	5 g/kg	-
White mineral oil (petroleum)	LD50 Oral	>5000 mg/kg	-

**Conclusion/Summary** : Not available.

### Chronic toxicity

**Conclusion/Summary** : Not available.

### Irritation/Corrosion

Product/ingredient name	Result	Score	Exposure	Observation
ammonia	Eyes - Severe irritant	-	250 Micrograms	-
	Eyes - Severe irritant	-	0.5 minutes 1 milligrams	-
propane-1,2-diol	Eyes - Mild irritant	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	-	100 milligrams	-
	Skin - Moderate irritant	-	96 hours 30 Percent continuous	-
	Skin - Mild irritant	-	168 hours 500 milligrams	-
palmitic acid	Skin - Moderate irritant	-	72 hours 104 milligrams Intermittent	-
	Skin - Mild irritant	-	96 hours 30 Percent	-
	Skin - Mild irritant	-	72 hours 75 milligrams Intermittent	-
hexadecan-1-ol	Eyes - Mild irritant	-	82 milligrams	-
	Skin - Mild irritant	-	100 Percent	-
	Skin - Moderate irritant	-	24 hours 100 milligrams	-
	Skin - Mild irritant	-	72 hours 75 milligrams Intermittent	-
	Skin - Severe irritant	-	0.2 Percent	-
	Skin - Mild irritant	-	48 hours 50 milligrams	-
	Skin - Severe irritant	-	24 hours 100 milligrams	-
	Skin - Mild irritant	-	24 hours 2600 milligrams	-
	Skin - Severe irritant	-	24 hours 100 milligrams	-
	(Z)-octadec-9-enol	Eyes - Mild irritant	-	24 hours 100 milligrams
Skin - Severe irritant		-	24 hours 100 milligrams	-
Skin - Mild irritant		-	72 hours 75	-

## 11. Toxicological information

Octadecan-1-ol, ethoxylated	Skin - Moderate irritant	-	milligrams Intermittent 24 hours 100	-
	Skin - Mild irritant	-	milligrams 24 hours 500	-
	Skin - Severe irritant	-	milligrams 24 hours 100	-
	Skin - Moderate irritant	-	milligrams 48 hours 20 Percent	-

**Conclusion/Summary** : Not available.

### Sensitizer

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
glycerol 1-stearate	A4	-	-	-	-	-
White mineral oil (petroleum)	A4	-	-	-	-	-

### 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.

### Canada

#### Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
ammonia propane-1,2-diol	Acute LC50 37 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
	Acute EC50 110 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000 mg/l Marine water	Crustaceans - Chaetogammarus marinus - Young	48 hours
3-aminophenol	Acute LC50 710000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute EC50 1100 µg/l Fresh water	Daphnia - Daphnia magna	48 hours

**Conclusion/Summary** : Not available.

### Persistence/degradability

**Conclusion/Summary** : Not available.

### Mexico

#### Aquatic ecotoxicity

Vero K-PAK Age Defy Color all shades ( except Clear)

## 12. Ecological information

Product/ingredient name	Result	Species	Exposure
ammonia propane-1,2-diol	Acute LC50 37 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
	Acute EC50 110 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000 mg/l Marine water	Crustaceans - Chaetogammarus marinus - Young	48 hours
	Acute LC50 710000 µg/l Fresh water	Fish - Pimephales promelas	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** : Not available.

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.	-	-	-		-
<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

### Canada

**WHMIS (Canada)** : Class D-2B: Material causing other toxic effects (Toxic).  
Class E: Corrosive material

### Canadian lists

**Canadian NPRI** : The following components are listed: Ammonia (total); White mineral oil

**CEPA Toxic substances** : The following components are listed: Ammonia dissolved in water

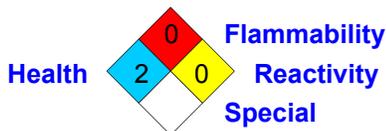
**Canada inventory** : Not determined.

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.

## 15. Regulatory information

### Mexico

Classification :



### 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

Date of printing : 3/2/2015.

Date of issue : 3/2/2015.

Date of previous issue : No previous validation.

Version : 0.01

Prepared by : Regulatory Affairs Group

▣ Indicates information that has changed from previously issued version.

### Notice to reader

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.