

Material Safety Data Sheet



Vero K-Pak Chrome Activator

1. Product and company identification

Product name	: Vero K-Pak Chrome Activator
Manufacturer	: Zotos International, INC 100 Tokeneke Road, Darien, CT 06820 www.zotos.com
Validation date	: 3/3/2015.
In case of emergency	: (800) 584-8038 [24 Hours]
Telephone number	: (203) 656-7859 [8:30 a.m. - 5:00 p.m.]
Transportation Emergency	: Contact: CHEMTREC 1-800-424-9300 [US/Canada 24 Hours]
Product type	: Liquid.

2. Hazards identification

Emergency overview

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

Color	: White.
Odor	: Odorless.
Hazard statements	: CAUSES EYE IRRITATION.
Precautionary measures	: Avoid contact with eyes. Wash thoroughly after handling.
OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential acute health effects

Inhalation	: None known.
Ingestion	: Mild irritant
Skin	: Prolonged exposure may result in skin burns and ulcerations.
Eyes	: Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc.

Potential chronic health effects

Chronic effects	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation	: No specific data.
Ingestion	: No specific data.
Skin	: No specific data.
Eyes	: Adverse symptoms may include the following: pain or irritation watering redness

Medical conditions aggravated by over-exposure	: Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.
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2. Hazards identification

See toxicological information (Section 11)

3. Composition/information on ingredients

Canada

Name	CAS number	%
hydrogen peroxide	7722-84-1	2.60

Mexico

Name	CAS number	UN number	%	IDLH	Classification			
					H	F	R	Special
hydrogen peroxide	7722-84-1	Not available.	2.60	75 ppm	2	0	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** : Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention if you feel unwell.
- Skin contact** : Wash the contaminated skin gently and thoroughly with running water and non-abrasive soap.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if you feel unwell.
- Ingestion** : Call physician immediately.
- Protection of first-aiders** : Use suitable protective equipment (section 8).
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

- Flammability of the product** : None known.
- 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
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

- Personal precautions** : Rubber gloves.
- Environmental precautions** : Store in a cool, well-ventilated, dry place. NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.
- Methods for cleaning up** : Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Place spilled material in an appropriate container for disposal. After contact with skin, wash immediately with plenty of water.

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, 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

Canada

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			
Ingredient	List name	ppm	mg/m³	Other	ppm	mg/m³	Other	ppm	mg/m³	Other	Notations
hydrogen peroxide	US ACGIH 6/2013	1	1.4	-	-	-	-	-	-	-	[3]
	AB 4/2009	1	1.4	-	-	-	-	-	-	-	
	BC 7/2013	1	-	-	-	-	-	-	-	-	
	ON 1/2013	1	1.4	-	-	-	-	-	-	-	
	QC 12/2012	1	1.4	-	-	-	-	-	-	-	

[3]Skin sensitization

Mexico

Occupational exposure limits

Ingredient	Exposure limits
hydrogen peroxide	NOM-010-STPS (Mexico, 9/2000). LMPE-PPT: 1 ppm 8 hours. LMPE-PPT: 1.5 mg/m ³ 8 hours. LMPE-CT: 3 mg/m ³ 15 minutes. LMPE-CT: 2 ppm 15 minutes.

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. Avoid contact with eyes, skin and clothing.
- Personal protection**
- Respiratory** : In case of insufficient ventilation, wear suitable respiratory equipment.
- Hands** : Wear suitable gloves.
- Eyes** : None.
- Skin** : Wear suitable protective clothing.

8. Exposure controls/personal protection

- 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

- Physical state** : Liquid. [Viscous liquid.]
- Color** : White.
- Odor** : Odorless.
- pH** : 3.8
- Boiling/condensation point** : >100°C (>212°F)
- Relative density** : 1

10. Stability and reactivity

- Chemical stability** : Unstable.
- Conditions to avoid** : No specific data.
- Incompatible materials** : Reducing agents metals combustible materials
- Hazardous decomposition products** : Contaminated product generates oxygen gas pressure build-up
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Hazardous polymerization** : Will not occur.

11. Toxicological information

Canada

Acute toxicity

- Conclusion/Summary** : Not available.

Chronic toxicity

- Conclusion/Summary** : Not available.

Irritation/Corrosion

Product/ingredient name	Result	Score	Exposure	Observation
hydrogen peroxide	Eyes - Severe irritant	-	1 milligrams	-

- Conclusion/Summary** : Not available.

Sensitizer

- Conclusion/Summary** : Not available.

Carcinogenicity

- Conclusion/Summary** : Not available.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
hydrogen peroxide	A3	3	-	-	-	-

Mutagenicity

- Conclusion/Summary** : Not available.

Teratogenicity

- Conclusion/Summary** : Not available.

Reproductive toxicity

11. Toxicological information

Conclusion/Summary : Not available.

Mexico

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Conclusion/Summary : Not available.

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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
hydrogen peroxide	Acute EC50 1.2 mg/l Marine water	Algae - Dunaliella tertiolecta - Exponential growth phase	72 hours
	Acute EC50 5.38 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 2320 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 30 mg/l Fresh water	Fish - Siluriformes - Fingerling	96 hours
	Chronic NOEC 989.7 ppm Fresh water	Fish - Oncorhynchus tshawytscha - Egg	43 days

Conclusion/Summary : Not available.

Persistence/degradability

Conclusion/Summary : Not available.

Mexico

Aquatic ecotoxicity

12. Ecological information

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	Acute LC50 30 mg/l Fresh water Chronic NOEC 989.7 ppm Fresh water	Fish - Siluriformes - Fingerling Fish - Oncorhynchus tshawytscha - Egg	96 hours 43 days

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
DOT Classification	Not regulated.	-	-	-		-
TDG Classification	Not regulated.	-	-	-		-
Mexico Classification	Not regulated.	-	-	-		-
ADR/RID Class	Not regulated.	-	-	-		-
IMDG Class	Not regulated.	-	-	-		-
IATA-DGR Class	Not regulated.	-	-	-		-

PG* : Packing group

15. Regulatory information

Canada

WHMIS (Canada) : Class D-1B: Material causing immediate and serious toxic effects (Toxic).
Class E: Corrosive material

Canadian lists

Canadian NPRI : None of the components are listed.

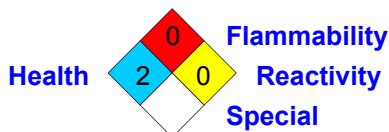
CEPA Toxic substances : None of the components are listed.

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.

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 : 3/3/2015.

Date of issue : 3/3/2015.

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.