

Material Safety Data Sheet



Apple Pectin Acid pH Perm With Apple Cider Neutralizer - Activator

1. Product and company identification

Product name	: Apple Pectin Acid pH Perm With Apple Cider Neutralizer - Activator
Manufacturer	: Zotos International, INC. 100 Tokeneke Road, Darien, CT 06820 www.zotos.com
Validation date	: 7/26/2012.
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	: Clear. Hazy
Odor	: Mild. Sulfurous.
Hazard statements	: MAY CAUSE EYE AND SKIN IRRITATION.
Precautionary measures	: 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.

OSHA/HCS status : None.

Potential acute health effects

Inhalation	: MAY CAUSE RESPIRATORY TRACT IRRITATION.
Ingestion	: Mild irritant
Skin	: May cause skin irritation.
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	: Contains material that may cause target organ damage, based on animal data.
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	: None identified.

Medical conditions aggravated by over-exposure : None.

See toxicological information (Section 11)

3. Composition/information on ingredients

Name	CAS number	%
glycerol	56-81-5	20

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

Ingredient	Exposure limits
glycerol	<p>ACGIH TLV (United States, 2/2010). TWA: 10 mg/m³ 8 hour(s). Form: Inhalable fraction</p> <p>OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m³ 8 hour(s). Form: Respirable fraction TWA: 10 mg/m³ 8 hour(s). Form: Total dust</p> <p>OSHA PEL (United States, 6/2010). TWA: 5 mg/m³ 8 hour(s). Form: Respirable fraction TWA: 15 mg/m³ 8 hour(s). Form: Total dust</p>

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

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

10. Stability and reactivity

Chemical stability : Stable under recommended storage and handling conditions (see section 7).

Conditions to avoid : Not available.

Incompatible materials : No specific data.

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

Possibility of hazardous reactions : Not available.

Hazardous polymerization : Not available.

11. Toxicological information

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 : No carcinogenic effect.

Mutagenicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

12. Ecological information

Ecotoxicity : No known significant effects or critical hazards.

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

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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

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.

Canada inventory : All components are listed or exempted.

International regulations

15. Regulatory information

Chemical Weapons : Not listed
 Convention List Schedule I
 Chemicals

Chemical Weapons : Not listed
 Convention List Schedule
 II Chemicals

Chemical Weapons : Not listed
 Convention List Schedule
 III Chemicals

16. Other information

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

Health	1
Flammability	0
Physical hazards	0

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The customer is responsible for determining the PPE code for this material.

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



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