

1. Product and Company Identification

Material name ACIDULANT 35005*08*24A
Version # 02
Revision date 12-19-2011
Product code 35005*08*24A
Manufacturer
 PepsiCo Inc.
 700 Anderson Hill Road
 Purchase, New York 10577 USA
 Phone: +1 914 253 2000, E-Mail: SafetyDataSheets@Pepsico.com
 Emergency (24 Hour) Phone Numbers:
 AMERICAS +1-760-602-8712 - access code 333017
 APAC +1-760-476-3960 - access code 333017
 EMEA +1-760-476-3961 - access code 333017

2. Hazards Identification

Emergency overview DANGER
 Corrosive. Causes skin and eye burns. Harmful if swallowed. Irritating to respiratory system. Prolonged exposure may cause chronic effects.
OSHA regulatory status This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects
Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.
Eyes This product causes eye burns. Risk of serious damage to eyes. Do not get this material in contact with eyes.
Skin Causes skin burns. Do not get this material in contact with skin.
Inhalation Causes burns. Irritating to respiratory system. Prolonged inhalation may be harmful. Do not breathe dust/fume/gas/mist/vapors/spray.
Ingestion Harmful if swallowed. Components of the product may be absorbed into the body by ingestion. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract. Do not ingest.
Target organs Eyes. Respiratory system. Skin.
Potential environmental effects Components of this product are hazardous to aquatic life. May cause long-term adverse effects in the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
PHOSPHORIC ACID	7664-38-2	60 - 80
CAFFEINE	58-08-2	20 - 40
Other components below reportable levels		10 - 20

4. First Aid Measures

First aid procedures
Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Skin contact Remove and isolate contaminated clothing and shoes. Immediately flush skin with plenty of water. Get medical attention immediately. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse.

Inhalation	Move to fresh air. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately.
Ingestion	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Never give anything by mouth to a victim who is unconscious or is having convulsions. Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Notes to physician	In case of shortness of breath, give oxygen. Keep victim warm.
General advice	Immediate medical attention is required. In case of shortness of breath, give oxygen. Keep victim warm.

5. Fire Fighting Measures

Flammable properties	Not flammable by OSHA criteria. Not combustibile by OSHA criteria.
Extinguishing media	
Suitable extinguishing media	Water fog. Powder.
Unsuitable extinguishing media	Water. Do not use water jet as an extinguisher, as this will spread the fire.
Protection of firefighters	
Protective equipment and precautions for firefighters	Wear suitable protective equipment.
Fire fighting equipment/instructions	Move containers from fire area if you can do it without risk. Move containers from fire area if you can do so without risk.
Hazardous combustion products	May include oxides of.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Ventilate closed spaces before entering. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering them. Stay upwind.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
Methods for containment	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewers, basements or confined areas. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Should not be released into the environment. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Dike far ahead of liquid spill for later disposal. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Clean contaminated surface thoroughly. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use. For waste disposal, see section 13 of the MSDS.

7. Handling and Storage

Handling

DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not handle or store near an open flame, heat or other sources of ignition. Use only with adequate ventilation. Do not get this material in contact with eyes. Do not get this material in contact with skin. Avoid breathing mist or vapor. Do not get this material on clothing. Wear personal protective equipment. Avoid prolonged exposure. Wash thoroughly after handling. Avoid release to the environment.

Storage

Keep locked-up. Keep away from heat, sparks, and flame. Keep away from heat, sparks and open flame. Keep in a well-ventilated place. Store in a well-ventilated place. Keep container tightly closed. Keep this material away from food, drink and animal feed. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children. Use care in handling/storage.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
PHOSPHORIC ACID (7664-38-2)	STEL	3 mg/m ³
	TWA	1 mg/m ³

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
PHOSPHORIC ACID (7664-38-2)	PEL	1 mg/m ³

Engineering controls

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye / face protection

Do not get this material in contact with eyes. Do not get in eyes. Chemical goggles are recommended. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin protection

Do not get this material in contact with skin. Do not get this material on clothing. Wear appropriate chemical resistant gloves. Structural firefighters protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations. Chemical resistant gloves. Wear chemical protective equipment that is specifically recommended by the manufacturer. It may provide little or no thermal protection.

Respiratory protection

Do not breathe dust/fume/gas/mist/vapors/spray. Wear positive pressure self-contained breathing apparatus (SCBA).

General hygiene considerations

Do not get this material in contact with eyes. When using, do not eat, drink or smoke. Do not get in eyes. Do not get this material in contact with skin. Do not get this material on clothing. Wash hands after handling and before eating. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance	Not available.
Physical state	Liquid.
Form	Clear Liquid
Color	Colorless
Odor	Odorless
Odor threshold	Not available.
pH	Not available.
Vapor pressure	4.4841 hPa estimated
Vapor density	Not available.
Boiling point	399.9852 °F (204.4362 °C) estimated
Melting point/Freezing point	Not available.
Solubility (water)	Not available.
Specific gravity	1.5859
Relative density	Not available.

Flash point	> 212.0000 °F (> 100.0000 °C)
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	Not available.
Percent volatile	15.8900 % estimated
Other data	
Density	13.2027 LB/GL
Flammability class	Combustible IIIB estimated
Flash point class	Combustible IIIB

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Conditions to avoid	Heat, flames and sparks. Avoid temperatures exceeding the flash point.
Incompatible materials	Peroxides. Phenols.
Hazardous decomposition products	Phosphoric acid. May include oxides of nitrogen. Nitrogen oxides (NOx). May include oxides of phosphorus.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Product	Test Results
ACIDULANT 35005*08*24A	Acute Dermal LD50 Rabbit: 4297 mg/kg estimated Acute Dermal LD50 Rat: 4297 mg/kg Acute Oral LD50 Hamster: 1118 mg/kg estimated Acute Oral LD50 Mouse: 617 mg/kg estimated Acute Oral LD50 Rabbit: 1088 mg/kg estimated Acute Oral LD50 Rat: 987 mg/kg
Components	Test Results
CAFFEINE (58-08-2)	Acute Oral LD50 Hamster: 230 mg/kg Acute Oral LD50 Mouse: 127 mg/kg Acute Oral LD50 Rabbit: 224 mg/kg Acute Oral LD50 Rat: 344 mg/kg Acute Oral LD50 Rat: 247 mg/kg
PHOSPHORIC ACID (7664-38-2)	Acute Dermal LD50 Rabbit: 2730 mg/kg Acute Oral LD50 Rat: 1530 mg/kg

Acute effects	Causes burns.
Local effects	Harmful if swallowed. Irritating to respiratory system.
Chronic effects	Hazardous by OSHA criteria. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
IARC Monographs. Overall Evaluation of Carcinogenicity	
CAFFEINE (CAS 58-08-2)	3 Not classifiable as to carcinogenicity to humans.
Skin corrosion/irritation	Hazardous by OSHA criteria.

12. Ecological Information

Ecotoxicological data

Product	Test Results
ACIDULANT 35005*08*24A	LC50 Fish: 5.0803 mg/L 96 Hours

Components**Test Results**

CAFFEINE (58-08-2)

LC50 Fish: 151 mg/L 96 Hours

PHOSPHORIC ACID (7664-38-2)

LC50 Fish: 3.25 mg/L 96 Hours

* Estimates for product may be based on additional component data not shown.

Ecotoxicity

Components of this product are hazardous to aquatic life.

Environmental effects

Harmful to aquatic life. Harmful to aquatic organisms.

Persistence and degradability

Not available.

13. Disposal Considerations**Waste codes**D002: Waste Corrosive material [pH \leq 2 or \geq 12.5, or corrosive to steel]**Disposal instructions**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of this material and its container at hazardous or special waste collection point. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information**DOT****Basic shipping requirements:****UN number**

UN1805

Proper shipping name

Phosphoric acid solution

Hazard class

8

Packing group

III

Additional information:**Special provisions**

A7, IB3, N34, T4, TP1

Packaging exceptions

154

Packaging non bulk

203

Packaging bulk

241

ERG number

154



DOT

IATA**Basic shipping requirements:****UN number**

1805

Proper shipping name

Phosphoric acid, solution

Hazard class

8

Packing group

III

Additional information:**ERG code**

8L



IATA

IMDG

Basic shipping requirements:

UN number	1805
Proper shipping name	PHOSPHORIC ACID SOLUTION
Hazard class	8
Packing group	III
EmS No.	F-A, S-B

15. Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2))

Not regulated

DEA Essential Chemical Code Number

Not regulated

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Not regulated

DEA Exempt Chemical Mixtures Code Number

Not regulated

CERCLA (Superfund) reportable quantity

PHOSPHORIC ACID: 5000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes
	Delayed Hazard - Yes
	Fire Hazard - No
	Pressure Hazard - No
	Reactivity Hazard - No

Section 302 extremely hazardous substance	No
--	----

Section 311 hazardous chemical	No
---------------------------------------	----

State regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - New Jersey RTK - Substances: Listed substance

PHOSPHORIC ACID (CAS 7664-38-2)	Listed.
---------------------------------	---------

US - Pennsylvania RTK - Hazardous Substances: Listed substance

PHOSPHORIC ACID (CAS 7664-38-2)	Listed.
---------------------------------	---------

16. Other Information

Recommended use Intended for use in beverage preparation

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings

Health: 3*
Flammability: 1
Physical hazard: 0

NFPA ratings

Health: 3
Flammability: 1
Instability: 0

Disclaimer

PepsiCo Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.

Issue date

Not available.

This data sheet contains changes from the previous version in section(s):

This document has undergone significant changes and should be reviewed in its entirety