



Periodic Acid 1%

Revision Date: 1/15/15

Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Periodic Acid 1%
Product code:

Supplier: Astral Diagnostics Inc.
1224 Forest Parkway, Suite 200
800-441-0366 Technical Service, Monday-Friday: 8:00 -5:00 PM

Synonym: None.
Material uses: Laboratory Reagent.
Validation date: 12/11/2013
In case of emergency: 800-424-9300 CHEMTREC (USA)
24 Hours/Day: 7 Days/Week

2. HAZARDS IDENTIFICATION

Emergency Overview

GHS Label, Pictogram:

None

Signal Word: Warning!

Hazard statement(s):

H316: Causes mild skin irritation (Cat 3).

H320: Causes eye irritation (Cat 2B).

H402: Toxic to aquatic life

Precautionary statement(s):

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P260: Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.

P280: Wear protective gloves/ eye protection/ face protection.

P305+351+338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Potential Health Effects:

Inhalation - Toxic if inhaled. Causes respiratory tract irritation.

Skin - Toxic if absorbed through skin. Causes skin irritation.

Eyes - Causes eye irritation.

Ingestion - Toxic if swallowed.

HMIS Classification

Health hazard: 0

Flammability: 0

Physical hazards: 0

NFPA Rating

Health hazard: 0

Fire: 0

Reactivity Hazard: 0

Target Organs:

NA

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS number	% by weight
Periodic Acid	10450-60-9	1
Water	7732-18-5	<100

4. FIRST AID MEASURES

- Eye contact:** Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact:** In case of contact, flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation:** Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion:** Call medical doctor or poison control center immediately. 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.

5. FIRE-FIGHTING MEASURES

Flammability of the product: Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Extinguishing media: Use dry chemical, CO₂, water spray (fog) or foam.

Not suitable: Do not use water jet.

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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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.

Special remarks on explosion hazards: Development of hazardous combustion gases or vapors possible in the event of fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

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).

Spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see

section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

7. HANDLING AND STORAGE

Handling:	Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Use empty containers to retain product, residue can be hazardous. Do not reuse container.
Storage:	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container, protected from direct sunlight. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredient	Exposure limits
Ethanol	ACGIH TLV (United States, 3/2012).
	STEL: 1000 ppm 15 minute(s).
	OSHA PEL 1989 (United States, 3/1989).
	TWA: 1900 mg/m ³ 8 hour(s).
	TWA: 1000 ppm 8 hour(s).
	NIOSH REL (United States, 1/2013).
	TWA: 1000 ppm 10 hour(s).
TWA: 1900 mg/m ³ 10 hour(s).	
OSHA PEL (United States, 6/2010).	
TWA: 1000 ppm 8 hour(s).	
TWA: 1900 mg/m ³ 8 hour(s).	

Consult local authorities for acceptable exposure limits.

Engineering measures:	Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
Hygiene measures:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Personal protection	
Respiratory:	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Hands:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Recommended: neoprene
Eyes:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: splash goggles
Skin:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: lab coat

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid.	Color:	Blue Solution
Flash Point:	Not available.	Odor:	Oderless
pH:	Not available	Boiling/condensation point:	Not available.
Melting/freezing point:	Not available.	Relative density:	Not available.
Vapor pressure:	Not available.	Vapor density:	Not available.
Odor threshold:	Not available.	Evaporation rate:	NA
VOC:	NA		
Solubility:	Soluble in the following materials: water		

10. STABILITY AND REACTIVITY

Chemical stability:	The product is stable.
Possibility of hazardous reactions:	Under normal conditions of storage and use, hazardous reactions will not occur.
Hazardous polymerization:	Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid:	Excessive heat
Materials to avoid:	Strong oxidizing materials
Hazardous decomposition Products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Conditions of reactivity:	Non-reactive

11. TOXICOLOGICAL INFORMATION

- Acute toxicity**
- Oral LD50**
no data available
- Inhalation LC50**
no data available
- Dermal LD50**
no data available
- Other information on acute toxicity**
no data available
- Skin corrosion/irritation**
no data available
- Serious eye damage/eye irritation**
Eyes: no data available
- Respiratory or skin sensitization**
no data available
- Germ cell mutagenicity**
no data available
- Specific target organ toxicity - single exposure (Globally Harmonized System)**
no data available
- Specific target organ toxicity - repeated exposure (Globally Harmonized System)**
no data available
- Aspiration hazard**
no data available
- Potential health effects**
- Inhalation** Toxic if inhaled. Causes respiratory tract irritation.
- Ingestion** Toxic if swallowed.
- Skin** Toxic if absorbed through skin. Causes skin irritation.
- Eyes** Causes eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

DOT (US)

Not Regulated.

15. REGULATORY INFORMATION

United States

HCS Classification: Non-hazardous solution

U.S. Federal regulations: United States inventory (TSCA 8b): NA

TSCA 8(d) H and S data reporting:

TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.

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: Ethyl Alcohol

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:
Ethyl Alcohol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Water Act (CWA) 307: NA

Clean Water Act (CWA) 311: NA

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

DEA List I & II Chemicals (Precursor Chemicals)

Not listed

RTK: New Methylene Blue, CAS 6586-05-6, MA, NJ, PA

California Prop. 65

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

WHMIS (Canada):

Class B-2: Not Listed
Class D-1B: Material causing serious toxic effects. Not Listed
Class D-2B: Material causing other toxic effects. Not Listed

Canadian lists:

CEPA Toxic substances: None of the components are listed.
Canadian ARET: None of the components are listed.
Canadian NPRI: The following components are listed: Not listed
Alberta Designated Substances: None of the components are listed.
Ontario Designated Substances: None of the components are listed.
Quebec Designated Substances: None of the components are listed.

CEPA DSL / CEPA NDSL:

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.

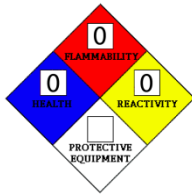
International regulations

International lists:

Australia inventory (AICS): All components are listed or exempted.
China inventory (IECSC): Not determined.
Japan inventory: All components are listed or exempted.
Korea inventory: All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): All components are listed or exempted.

16. OTHER INFORMATION

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



Notice to reader

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Astral Diagnostics Inc. shall not be liable for any damage resulting from handling of contact with this product.